Roads ACT
Office of Transport

2008 ROAD TRAFFIC CRASHES IN THE ACT

TRAFFIC MANAGEMENT AND SAFETY
MAY 2009

Roads ACT

SUMMARY OF MAIN POINTS

Crash trends	ACT crash numbers gradually declined between 1999 and 2005 with increases between 2006 and 2008. The number of fatal crashes each year in the ACT is somewhat variable but has averaged 14.8 over the last 10 years.
Comparison with Other Australian States	Since 1991, the following ACT rates have been the lowest amongst all Australian States and lower than the national average: -rates of persons hospitalised per population and per vehicle kms of travel; -costs of serious casualty crashes per population and per vehicle kms of travel. The ACT rate of persons killed per population is also generally lower than the national average, apart from 2005 where the ACT rate was equal to the national rate.
2008 Crashes	There were 7229 'on-road' recorded traffic crashes in 2008 which involved 14048 vehicles and resulted in 427 casualties including 14 fatalities and 101 persons admitted to hospital.
Age	In 2008 about 46% of all casualties occurred to people younger than 30 years of age. The single most vulnerable age group seems to be between 20 and 24 accounting for nearly 15% of all casualties.
Gender	Males account for 60% of all casualties.
Pedestrian Casualties	Pedestrian casualties account for around 10% of all casualties, 46% of which were younger than 24 years of age. Three pedestrians was killed in 2007.
Accident-Types	The most frequent accident-type is the 'rear end collision' (44% of all crashes). In terms of severity, the 'right-angle collision' type is the most frequent (16% of all casualty crashes).
Vehicle Types	The majority (around 86%) of vehicles involved in crashes were cars and station wagons. Around 1.5% of vehicles involved were trucks, and around 1.6% of vehicles involved were motor cycles or scooters.
Position in Vehicle	Drivers and motorcycle riders account for more than 58% of all casualties. Front seat passengers, pedal cyclists and pedestrians also registered relatively high casualty rates.
Fixed Object Struck	The 'struck object' accident-type accounts for around 6.0% of all crashes and around 15% of all casualties. The most frequent objects struck are kerb or guard rail. In total 36% of 2008 fatal crashes struck an object.
Time	It seems that November and December represents the safest period with the least number of crashes. The highest number and proportion of crashes occur on Thursdays and Fridays. Weekends produced the lowest number of crashes. Most crashes occur on weekdays between 7 am and 8 pm. The sharp peaks from 8 am to 9 am and 5 pm to 6 pm coincide with the relatively short and confined traffic volume peaks in the ACT.
Weather Conditions	The majority of crashes occurred in fine weather conditions. Rain may have been a contributing factor in around 10% of crashes.
Traffic Control Type	Approximately 43% of all casualty crashes occurred at uncontrolled locations, followed by intersections controlled by Give Way signs and traffic lights.

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INTRODUCTION

1.0 INTRODUCTION

1.1 Background

Roads ACT monitors the safety and operating traffic conditions in the ACT in order to identify current problems and problem areas. This involves the on-going collection, collation, analysis and reporting of traffic-related data. As part of this monitoring process, Roads ACT is responsible for the analysis of traffic crashes data obtained from the Australian Federal Police.

Roads ACT welcomes comments on this report, including criticisms or difficulties with its interpretation. Such comments and suggestions together with requests for further information should be directed to:

Roads ACT
12 Wattle Street
Lyneham ACT 2602

Telephone (02) 6207 6157
Fax (02) 6207 6872

1.2 ACT Road Safety Strategy

Two goals of the ACT Road Safety Strategy 2007-2010 are that road trauma rates continue to be reduced despite increase in population and travel, and the community shares the responsibility for road safety. A copy of the Strategy can be found at www.tams.act.gov.au/move/roads/road_safety.

Reliable data and data analysis are necessary for the evaluation and monitoring of specific road safety initiatives. Continuous evaluation and promotion of engineering and human behaviour aspects of road safety are essential. Consequently one of the objectives of the ACT Road Safety Strategy is to ensure that adequate data are available for road safety planning and monitoring.

1.3 ACT Road Safety Improvement Programs

The procedures for identifying black spots are detailed in the document 'ACT Road Safety Improvement Guidelines, January 1995' and the most up-to-date list of sites currently considered for improvements is detailed in the 'Intersection and midblock crash ranking report 2008'. Both documents are published by Roads ACT of the ACT Department of Territory and Municipal Services.

Black spot locations are identified based on crash frequencies and severity (weighting) of accident-types with a high potential for casualty. The moving trends of the top 300 intersections and 150 mid-block locations are continuously monitored over both seven and two year periods.

Sites where improvements have been implemented in the previous three years are omitted from the list and targeted for 'Before' and 'After' evaluation studies. Remaining sites are identified for improvements and are included on future Capital Works Programs after detailed studies of traffic conditions and economic evaluation of treatment options.

1.4 Reporting of Traffic Crashes

All traffic crashes in the ACT are required to be reported to the police irrespective of the amount of damage or the extent of injury. In other jurisdictions, only those crashes with a property damage value exceeding a certain threshold (different for different jurisdictions) are reported. Care is therefore needed in interpreting crashes data and comparing results with other data sets since the ACT could, mistakenly, be seen as generating significantly more crash numbers per capita than other Australian jurisdictions.

In general the police only attend more serious crashes which involve fatalities, injuries, or where damaged vehicles are causing an obstruction. For these crashes the data recorded is more detailed than for crashes that are reported at the police station.

The above crashes are termed ‘major crashes’ by the AFP and a report is completed for each. This consists of various information related to the crash factors classified into three main groups: Roads, Vehicles and Persons. All other ‘minor crashes’ (introduced in June 1994) are reported to the front office at any of the various police stations.

All forms are sent from police stations to AFP headquarters at Belconnen, where the information is entered onto their computer system. Roads ACT regularly collects copies of the original crash/incident forms.

1.5 Coding of Traffic Crashes

Roads ACT has introduced ‘Road User Movement / Accident types’ coding to all its data since 1992. This process has enabled a more detailed and refined description of accident types.

1.6 Accidents Database

Roads ACT makes use of the ACT Roads Asset Management System (ACTRAMS) for the storage, analysis and reporting of traffic crashes. The software platform on which the new system was implemented consists of:

. Sybase Adaptive Server, Vs.11.5
. Power Builder.
. Running on MS NT 4.0

All coded crashes forms are entered into ACTRAMS. Various standard reports have been designed to generate the most commonly requested information. However, any cross tabulation and a multitude of possible reports can be organised through SQL querying capabilities.

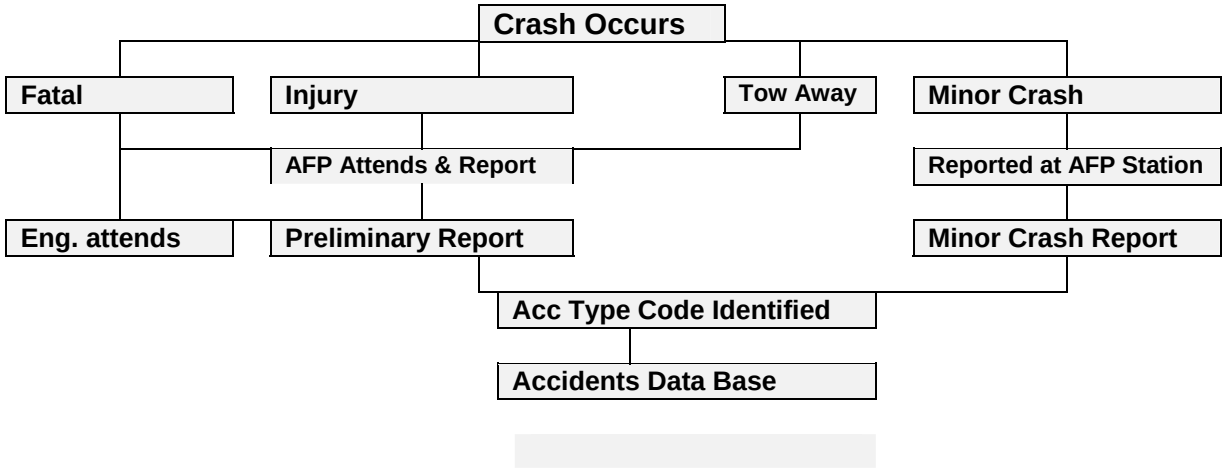


Fig 1.0 Processing of Crash Information

1.7 The Structure of this Report

The data in this report has been divided into four Sections:

1. Trends
2. Crashes
3. Casualties (Persons)
4. Vehicles

Some of the more significant results obtained from the data are outlined under "***Summary of main points***". In perusing this data, the reader is cautioned that in many cases a proportional representation of the various classes was not provided, limiting the types of conclusions that may be drawn from the data. For example, although nearly five times as many motor vehicle drivers suffered injuries as motorcycle riders one cannot conclude from this that driving a car is more dangerous than driving a motorcycle, as clearly a much higher proportion of road users drive cars.

TRAFFIC CRASHES AND CASUALTY TRENDS

CASUALTY TRENDS IN THE ACT

Table 2.1: Trends in casualties 1999- 2008

Year	Received Medical Treatment	Admitted to Hospital	Fatality	Total Casualties
1999	550	182	18	750
2000	469	174	18	661
2001	416	176	16	608
2002	245	150	10	405
2003	238	138	10	386
2004	351	125	9	485
2005	461	86	26	573
2006	262	165	13	440
2007	428	139	14	581
2008	312	101	14	427
Total	**3732**	**1436**	**148**	**5316**

During the past ten year period (1999 to 2008), persons receiving medical treatment, admitted to hospital and fatalities represented around 70.2%, 27.0% and 2.8% of all casualties respectively.

TRAFFIC CRASHES TRENDS IN THE ACT

Table 2.2 "On Road" Crashes Trends 1999 - 2008

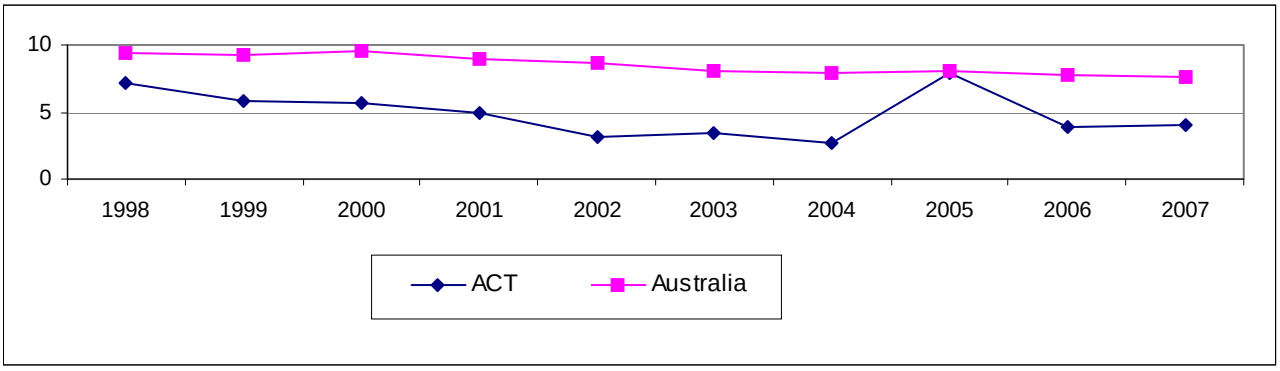
Year	Property	Injury Crashes	Fatal Crashes	Total Crashes
1999	8433	549	16	8998
2000	8113	511	16	8640
2001	8144	465	15	8624
2002	7922	317	8	8247
2003	7982	296	9	8287
2004	6881	381	9	7271
2005	6559	418	25	7002
2006	6902	378	12	7292
2007	7660	501	14	8175
2008	6857	358	14	7229
Total	**75453**	**4174**	**138**	**79765**

During the past ten year period (1999 to 2008), crashes involving property damage only, injury or a fatality represented around 94.6%, 5.2%, 0.2% of all crashes respectively.

2.3 COMPARISON WITH OTHER AUSTRALIAN STATES

Persons Killed per Head of Population (Per 100 000 Population)

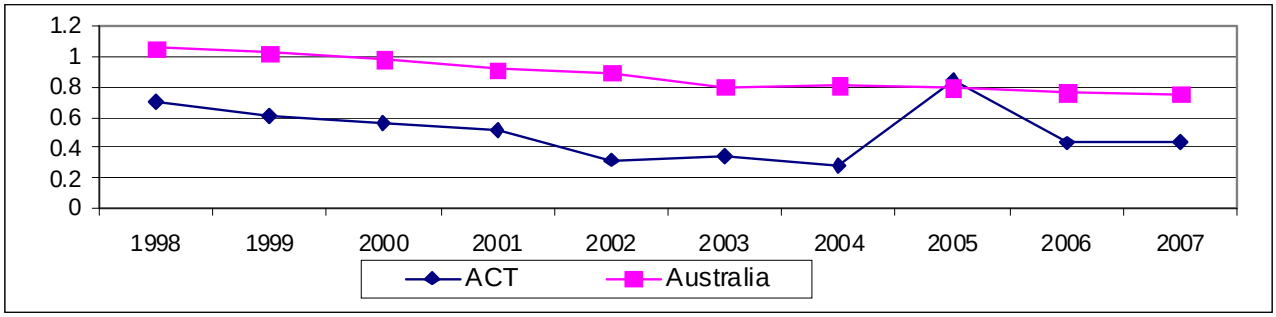
States	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
New South Wales	8.8	9.0	9.3	8.0	8.5	8.1	7.6	7.5	7.3	6.3
Victoria	8.4	8.2	8.6	9.2	8.2	6.7	6.9	6.9	6.6	6.4
Queensland	8.1	9.0	8.9	8.9	8.7	8.1	8.0	8.3	8.2	8.6
Western Australia	12.2	11.8	11.3	8.7	9.3	9.2	9.0	8.0	9.8	11.2
South Australia	11.3	10.2	11.0	10.1	10.1	10.2	9.0	9.5	7.5	7.9
Tasmania	10.2	11.2	9.1	12.9	7.8	8.6	12.0	10.5	11.2	9.1
Northern Territory	36.3	25.4	26.1	25.3	27.5	26.5	17.3	26.7	20.9	26.5
ACT	**7.1**	**5.8**	**5.7**	**5.0**	**3.1**	**3.4**	**2.7**	**7.9**	**3.9**	**4.1**
Australia	9.4	9.3	9.5	8.9	8.7	8.1	7.9	8.0	7.7	7.6



Persons Killed per 100 million Vehicle - kms

States	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
New South Wales	1.06	1.04	1.18	0.89	0.92	0.87	0.87	0.80	0.81	0.69
Victoria	0.87	0.85	0.75	0.87	0.77	0.60	0.65	0.67	0.62	0.57
Queensland	0.94	0.95	0.86	0.84	0.88	0.79	0.75	0.74	0.74	9.78
Western Australia	1.25	1.23	1.07	0.89	0.93	0.86	0.84	0.75	0.89	0.97
South Australia	1.20	1.17	1.26	1.01	1.04	1.04	0.91	1.01	0.75	0.88
Tasmania	1.15	1.40	0.98	1.53	0.83	0.88	1.27	0.96	1.09	0.90
Northern Territory	4.65	3.00	3.13	3.29	3.21	3.37	2.20	3.43	2.67	3.19
ACT	**0.70**	**0.61**	**0.56**	**0.52**	**0.32**	**0.34**	**0.28**	**0.84**	**0.43**	**0.44**
Australia	1.05	1.02	0.98	0.91	0.89	0.80	0.80	0.79	0.76	0.75

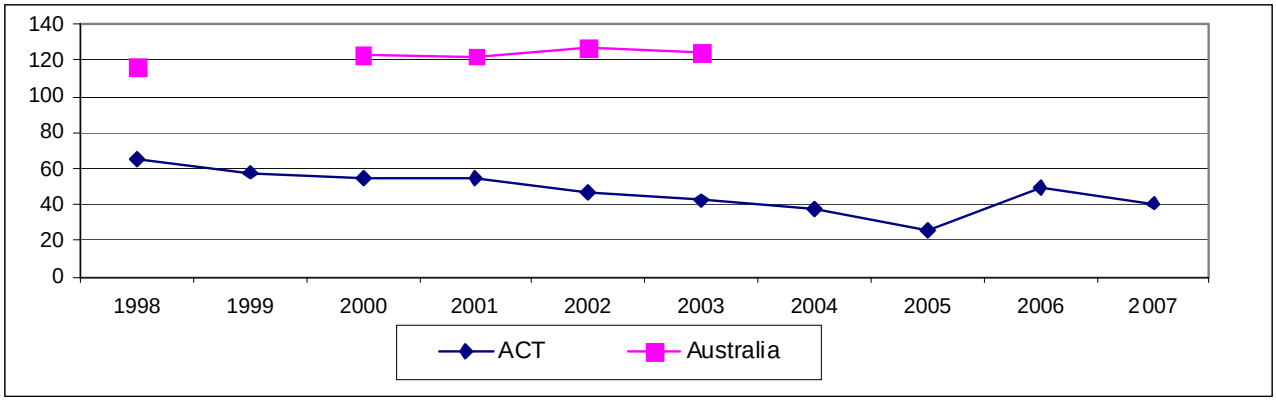
Source: Data for other Australian States is obtained from Austroads' "The Australian Road System and Road Authorities - National Performance Indicators", 2000.



Since 1988, the ACT has recorded rates of persons killed per head of population and per vehicle kilometres of travel lower than the national average. Apart from 2005, the ACT's rate of persons killed per head of population has also been consistently the lowest amongst all Australian States.

Persons Hospitalised per Head of Population (Per 100 000 Population)

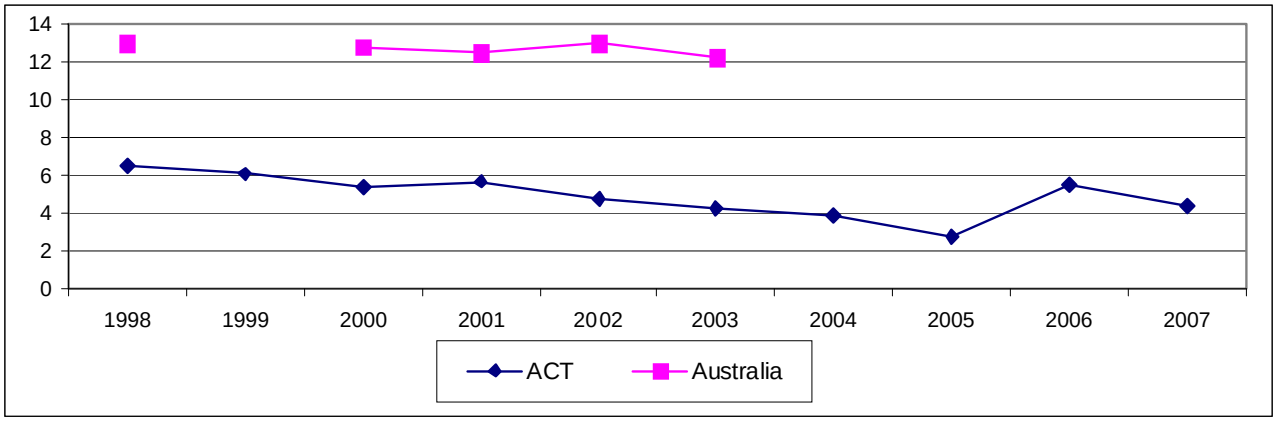
States	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
New South Wales	87.0	NA	115.8	107.4	105.9	104.2	NA	NA	NA	NA
Victoria	136.3	130.0	134.4	139.9	142.4	136.0	128.4	123.6	139.5	151.0
Queensland	127.2	128.6	134.5	146.5	150.7	152.4	159.7	157.9	NA	NA
Western Australia	162.3	136.3	114.0	101.7	149.4	147.2	160.6	152.8	134.3	132.2
South Australia	105.1	107.4	108.1	106.2	101.1	95.9	86.1	83.3	86.6	85.9
Tasmania	94.4	106.1	111.6	100.5	89.7	82.1	78.7	76.3	64.7	66.7
Northern Territory	233.3	224.7	229.1	224.0	205.6	217.0	249.4	236.5	251.2	260.6
ACT	**65.3**	**58.3**	**55.2**	**54.8**	**46.5**	**42.4**	**38.2**	**26.0**	**49.4**	**40.9**
Australia	116.8	NA	123.2	122.2	126.9	124.5	NA	NA	NA	NA



Persons Hospitalised per 100 million Vehicle - kms

States	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
New South Wales	10.5	NA	14.7	12.1	11.6	11.2	NA	NA	NA	NA
Victoria	14.1	13.4	11.7	13.2	13.5	12.2	12.2	12.0	13.1	13.6
Queensland	14.7	13.7	13.0	13.8	15.3	14.9	15.0	14.2	NA	NA
Western Australia	16.6	14.2	10.8	10.4	15.0	13.8	14.9	14.2	12.2	11.5
South Australia	11.2	12.3	12.4	10.6	10.4	9.8	8.7	8.9	8.7	9.6
Tasmania	10.7	13.2	12.0	11.9	9.6	8.5	8.3	7.0	6.3	6.6
Northern Territory	29.8	26.5	27.5	29.1	23.9	27.6	31.2	30.4	32.1	31.4
ACT	**6.5**	**6.1**	**5.4**	**5.7**	**4.8**	**4.3**	**3.9**	**2.8**	**5.5**	**4.4**
Australia	13.0	NA	12.8	12.5	13.0	12.3	NA	NA	NA	NA

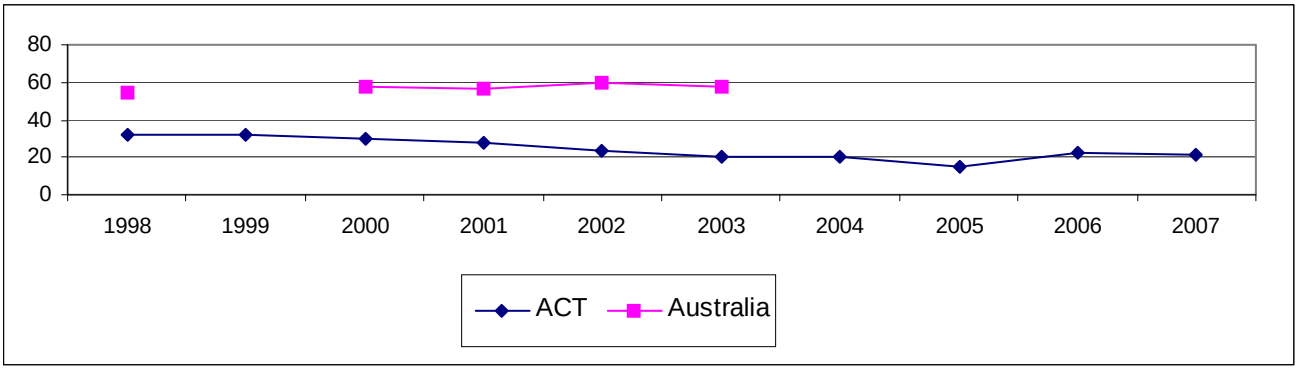
Source: Data for other Australian States is obtained from Austroads' "The Australian Road System and Road Authorities - National Performance Indicators", 2000.



Since 1988, the ACT has recorded the lowest rates of persons hospitalised per head of population and per vehicle kilometres of travel amongst all Australian States. These rates have also been lower than the national average.

Social Cost of Serious Casualty Crashes* ($ million per 100 000 Population)

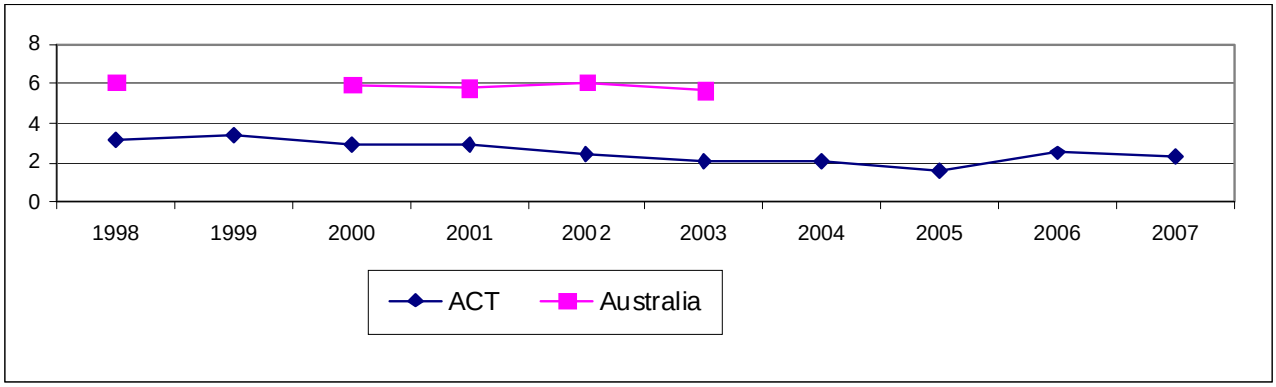
States	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
New South Wales	40.69	NA	52.46	48.17	48.50	47.12	NA	NA	NA	NA
Victoria	61.64	59.15	61.01	62.45	65.88	61.06	57.89	55.93	61.80	66.60
Queensland	58.03	58.14	61.00	66.13	67.88	67.84	71.68	72.05	NA	NA
Western Australia	72.91	60.25	53.25	47.54	66.20	65.75	72.00	67.83	60.29	61.43
South Australia	55.71	55.16	55.25	55.13	52.97	51.24	46.83	43.40	41.97	45.30
Tasmania	50.72	52.27	55.38	52.60	48.02	44.59	43.63	42.83	26.16	35.91
Northern Territory	129.69	122.73	122.28	115.67	111.45	113.71	126.69	123.73	127.38	135.99
ACT	**31.57**	**32.00**	**29.88**	**27.36**	**23.19**	**20.40**	**20.29**	**14.90**	**22.55**	**21.71**
Australia	54.74	NA	57.34	56.47	59.30	57.37	NA	NA	NA	NA



Social Cost of Serious Casualty Crashes per 100 Million Veh-km ($million)

States	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
New South Wales	4.90	NA	6.66	5.41	5.29	5.06	NA	NA	NA	NA
Victoria	6.38	6.10	5.31	5.90	6.23	5.46	5.48	5.44	5.79	5.98
Queensland	6.71	6.19	5.91	6.23	6.87	6.61	6.71	6.46	NA	NA
Western Australia	7.44	6.30	5.02	4.86	6.65	6.17	6.69	6.32	5.49	5.33
South Australia	5.94	6.32	6.32	5.52	5.42	5.24	4.73	4.64	4.24	5.05
Tasmania	5.75	6.53	5.97	6.24	5.12	4.59	4.62	3.93	3.50	3.55
Northern Territory	16.58	14.46	14.70	15.03	12.98	14.46	16.06	15.93	16.29	16.37
ACT	**3.13**	**3.38**	**2.92**	**2.87**	**2.41**	**2.08**	**2.05**	**1.58**	**2.50**	**2.33**
Australia	6.10	NA	5.95	5.76	6.06	5.66	NA	NA	NA	NA

Source: 'Austroads' "The Australian Road System and Road Authorities - National Performance Indicators", 2000.
* A "serious casualty crash" is one where at least one person was killed or admitted to hospital.

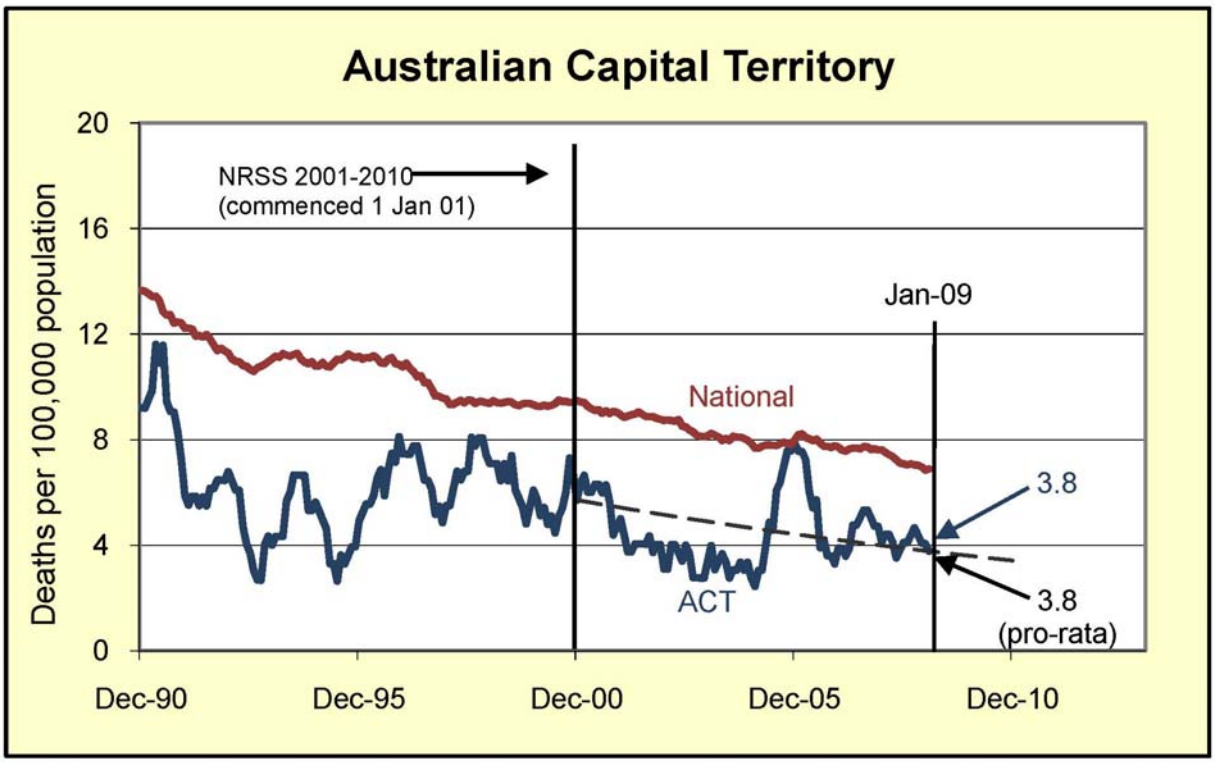


Since 1991, the ACT has recorded the lowest rates of the cost of serious casualty crashes per head of population and per vehicle kilometres of travel (mainly because of the low number of serious casualty crashes) amongst all Australian States. These rates have also been lower than the national average.

2.4 THE ACT ROAD SAFETY STRATEGY

The ACT Road Safety Strategy 2007-2010 was released in April 2007. This Strategy incorporates the ACT Road Safety Action Plan for 2007 and 2008, and complements road safety efforts under the National Road Safety Strategy and Action Plans.

The National Road Safety Strategy covers the ten year period from 2001 to 2010. This Strategy aims to reduce the number of road fatalities per 100,000 population by 40%, from 9.3 in 1999 to no more than 5.6 in 2010.



The ACT consistently records low crash rates compared with other jurisdictions. As shown in the chart above, apart from a spike in the 2005 population fatality rate, the ACT rate is consistently lower than the national average for this indicator.

The challenge for the current ACT Road Safety Strategy is to:

- achieve better than the national target of 5.6 fatalities per 100,000 population; and
- maintain ACT crash rates, both for fatalities and casualties, at a level lower than the national average.

TRAFFIC CRASHES IN 2008

Table 3.1: 2008 Total Crashes by Severity and Accident Type

Code	Accident Type	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
1	Right turn into oncoming vehicle	329	37	1	*367*	*5.08*
2	Right angle collision	1056	80	4	*1140*	*15.77*
3	Same direction side swipe	633	7	0	*640*	*8.85*
4	Opposite direction side swipe	40	7	0	*47*	*0.66*
5	Head on collision	16	12	1	*29*	*0.40*
6	Rear end collision	3110	46	0	*3156*	*43.66*
7	Collision with parked vehicle	289	6	0	*295*	*4.08*
8	Collision while one vehicle reversing	213	0	0	*213*	*2.95*
9	Other - Vehicle to Vehicle	489	27	0	*516*	*7.14*
10	Struck pedestrian	9	37	3	*49*	*0.68*
11	Struck animal (not ridden)	166	7	0	*173*	*2.39*
12	Struck object	43	1	0	*44*	*0.61*
13	Overturned	41	25	0	*66*	*0.91*
14	Fall from moving vehicle	4	1	0	*5*	*0.07*
15	Other - Single Vehicle on Carriageway	43	8	0	*51*	*0.70*
16	Struck pedestrian (on footpath etc.)	0	1	0	*1*	*0.01*
17	Struck vehicle	3	0	0	*3*	*0.04*
18	Struck animal (not ridden)	4	0	0	*4*	*0.05*
19	Struck object	342	50	5	*397*	*5.49*
20	Overturned	5	0	0	*5*	*0.07*
21	No object struck	22	6	0	*28*	*0.39*
22	Other - Single Vehicle off Carriageway	0	0	0	*0*	*0*
Total		*6857*	*358*	*14*	*7229*	*100.00*

The most frequent accident type in 2008 is the 'rear end collision' forming around 44 % of all crashes. This is followed by the 'right angle collision' type. Single vehicle crashes constitute around 11.4% of all crashes, while the majority (88.6 %) involve two or more vehicles.

In terms of severity, the 'right angle collision' type is the most frequent, representing around 22% of all casualty crashes for 2008. Accident types with a high potential for severity (those with at least 15% casualty crashes out of all crashes of that type) include 'Head on collision', 'struck pedestrian', 'overturned' and 'fall from vehicle' types.

Table 3.2: 2008 Total Crashes by Severity and Fixed Object Struck

Fixed Object Code	Fixed Object Struck	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
0	Not Applicable	6507	306	9	*6822*	*94.37*
1	Light or tele pole	75	9	0	*84*	*1.16*
2	Sign or signal pole	35	3	0	*38*	*0.53*
3	Tree	71	21	3	*95*	*1.31*
4	Building or structure	23	3	1	*27*	*0.37*
5	Kerb or guard rail	117	13	1	*131*	*1.81*
6	Guide post	4	0	0	*4*	*0.06*
7	Other	25	3	0	*28*	*0.39*
Total		*6857*	*358*	*14*	*7229*	*100.00*

Amongst crashes involving the striking of fixed objects, 'Tree' caused the highest number of casualty crashes followed by 'kerb or guard rail'. In total, 36% of 2008 fatal crashes involved striking an object.

Table 3.3: 2008 Total Crashes by Severity and Month

Month Code	Month	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
1	**January**	498	30	1	***529***	***7.32***
2	**February**	661	25	1	***687***	***9.50***
3	**March**	648	25	0	***673***	***9.31***
4	**April**	605	23	1	***629***	***8.70***
5	**May**	756	26	2	***784***	***10.85***
6	**June**	704	23	3	***730***	***10.10***
7	**July**	659	30	1	***690***	***9.54***
8	**August**	630	32	3	***665***	***9.20***
9	**September**	571	31	1	***603***	***8.34***
10	**October**	470	34	0	***504***	***6.97***
11	**November**	255	41	0	***296***	***4.10***
12	**December**	400	38	1	***439***	***6.07***
Total		***6857***	***358***	***14***	***7229***	***100.00***

There is no consistent pattern for the distribution of crashes by month of the year in 2008. February, May, June and July recorded the highest proportion of crashes. November and December recorded the least number of crashes. November recorded the highest number of casualty crashes, while April and June recorded the lowest.

Table 3.4: 2008 Total Crashes by Severity and Day of Week

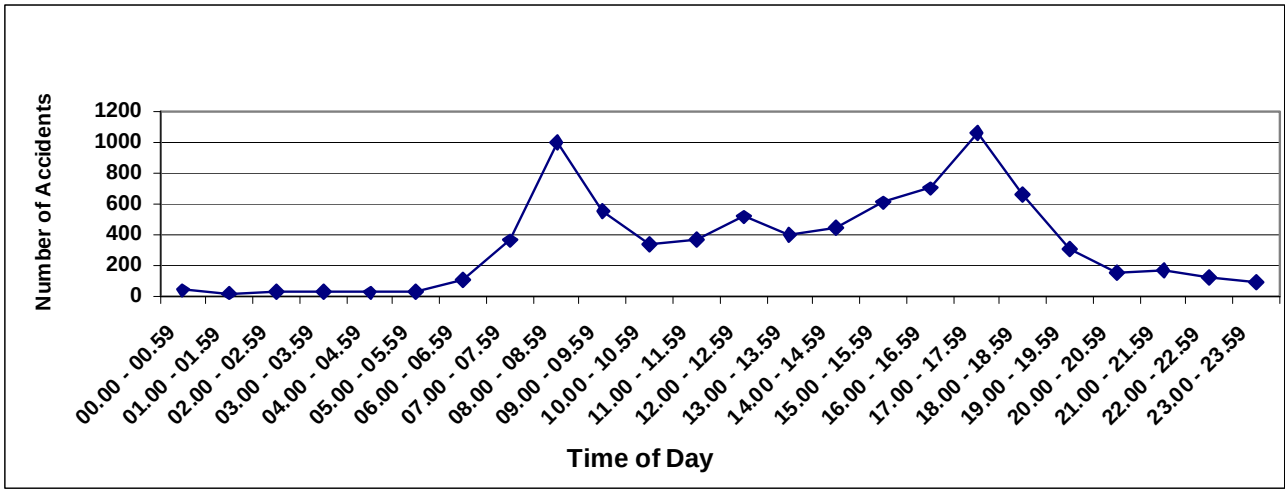
Day of Week	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
Sunday	482	42	1	***525***	***7.26***
Monday	993	57	3	***1053***	***14.57***
Tuesday	1151	54	1	***1206***	***16.68***
Wednesday	1031	51	2	***1084***	***15.00***
Thursday	1192	52	3	***1247***	***17.25***
Friday	1225	55	2	***1282***	***17.73***
Saturday	783	47	2	***832***	***11.51***
Total	***6857***	***358***	***14***	***7229***	***100.00***

There are more crashes on week days than weekends. The highest number and proportion of traffic crashes seem to occur on Thursday and Friday (17.25% and 17.73% respectively), while crashes on Sunday only represent around 7% of all crashes. This trend is consistent with previous years. Monday and Thursday produced the highest number of fatal crashes in 2008 (6 out of 14).

Table 3.5: 2008 Total Crashes by Severity and Time of Day

Time of Crash	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
00.00 - 00.59	43	7	1	***51***	***0.71***
01.00 - 01.59	39	4	0	***43***	***0.59***
02.00 - 02.59	22	7	1	***30***	***0.41***
03.00 - 03.59	23	3	2	***28***	***0.39***
04.00 - 04.59	20	3	0	***23***	***0.32***
05.00 - 05.59	40	5	0	***45***	***0.62***
06.00 - 06.59	107	10	0	***117***	***1.62***
07.00 - 07.59	344	17	1	***362***	***5.01***
08.00 - 08.59	865	45	0	***910***	***12.59***
09.00 - 09.59	430	20	0	***450***	***6.22***
10.00 - 10.59	293	17	1	***311***	***4.30***
11.00 - 11.59	321	15	0	***336***	***4.65***
12.00 - 12.59	385	14	1	***400***	***5.53***
13.00 - 13.59	339	17	0	***356***	***4.93***
14.00 - 14.59	344	8	0	***352***	***4.87***
15.00 - 15.59	540	22	2	***564***	***7.80***
16.00 - 16.59	639	17	1	***657***	***9.09***
17.00 - 17.59	865	28	2	***895***	***12.38***
18.00 - 18.59	514	39	0	***553***	***7.65***
19.00 - 19.59	217	17	1	***235***	***3.25***
20.00 - 20.59	153	18	0	***171***	***2.37***
21.00 - 21.59	135	6	0	***141***	***1.95***
22.00 - 22.59	105	7	0	***112***	***1.55***
23.00 - 23.59	74	12	1	***87***	***1.20***
Total	***6857***	***358***	***14***	***7229***	***100.00***

2008 Total Crashes by Time of Day



The peak hours for crashes coincide with traffic volume peaks. It is interesting to note the sharp morning peak between 8.00 and 9.00 am and the afternoon peak between 5.00 pm and 6.00 pm.

Table 3.6: 2008 Total Crashes by Severity and Traffic Control Type

Traffic Control Code	Traffic Control	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
0	**Unknown**	122	3	0	***125***	***1.73***
1	**Uncontrolled**	3400	223	8	***3631***	***50.23***
2	**Control Not Operated**	22	1	0	***23***	***0.32***
3	**Traffic Lights**	1566	57	2	***1625***	***22.48***
4	**Give Way Sign**	1422	60	4	***1486***	***20.56***
5	**Stop Sign**	215	7	0	***222***	***3.07***
6	**Police**	6	0	0	***6***	***0.08***
7	**School Crossing**	6	0	0	***6***	***0.08***
8	**Marked Pedestrian Crossing**	61	7	0	***68***	***0.94***
9	**Other**	37	0	0	***37***	***0.51***
Total		***6857***	***358***	***14***	***7229***	***100.00***

Crashes at uncontrolled intersections record the highest number of casualty crashes followed by intersections controlled by Give Way signs and traffic lights. Similar trends were observed in previous years.

Table 3.7: 2008 Total Crashes by Severity and Road Location

Location Type Code	Location Type	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
Intersections						
1	**Cross Intersection**	1400	63	3	1466	***20.29***
2	**T Intersection**	1671	90	5	1766	***24.43***
3	**Y Intersection**	45	3	0	48	***0.66***
4	**Multiple Intersection**	73	1	0	74	***1.02***
5	**Roundabout**	1106	27	0	1133	***15.67***
6	**Unknown**	46	0	0	46	***0.64***
Sub Total		***4341***	***184***	***8***	***4533***	**-**
Mid Blocks						
7	**Median Opening**	737	71	1	809	***11.19***
8	**Not median opening**	1619	101	5	1725	***23.86***
9	**Other**	160	2	0	162	***2.24***
Sub Total		***2516***	***174***	***6***	***2696***	**-**
Total		***6857***	***358***	***14***	***7229***	***100.00***

Nearly 63% of all crashes occur at intersections. T-intersections have a high proportion of crashes. The high proportion of T-intersections in the ACT road network out of all intersection types may be a factor in this result. Mid blocks (not involving a median opening) and cross intersections also record high numbers of crashes.

Table 3.8: 2008 Total Crashes by Severity and Weather Conditions

Weather Code	Weather Conditions	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
0	**Unknown**	15	0	0	***15***	***0.21***
1	**Fine**	6085	324	14	***6423***	***88.85***
2	**Light rain**	594	27	0	***621***	***8.59***
3	**Heavy rain**	95	6	0	***101***	***1.40***
4	**Snow**	5	0	0	***5***	***0.07***
5	**Fog**	55	1	0	***56***	***0.77***
7	**Other**	8	0	0	***8***	***0.11***
Total		***6857***	***358***	***14***	***7229***	***100.00***

It is interesting to note that rain may have been a contributing factor to about 10% of crashes. The 14 fatal crashes happened during fine weather.

Table 3.9: 2008 Total Crashes by Severity and Light Conditions

Light Conditions Code	Light Conditions	Property Crashes	Injury Crashes	Fatal Crashes	*Sub Totals*	*% of total Crashes*
0	**Unknown**	13	0	0	***13***	***0.18***
1	**Daylight**	5279	246	6	***5531***	***76.51***
2	**Semi-darkness**	630	31	2	***663***	***9.17***
3	**Dark - no Street lights**	79	9	0	***88***	***1.22***
4	**Dark - poor Street lighting**	263	18	1	***282***	***3.90***
5	**Dark - good Street lighting**	593	54	5	***652***	***9.02***
Total		***6857***	***358***	***14***	***7229***	***100.00***

About 76% of all casualty crashes occur in daylight conditions.

CASUALTIES IN 2008

Table 4.1: 2008 Total Casualties by Casualty Class and Accident Type

Accident Type Code	Accident Type	Fatality	Admitted to Hospital	Received Medical Treatment	*Sub Total*	*% of Total Casualties*
Vehicle to Vehicle Collision						
1	**Right turn into oncoming vehicle**	1	10	33	***44***	***10.30***
2	**Right angle collision**	4	25	65	***94***	***22.01***
3	**Same direction side swipe**	0	0	8	***8***	***1.87***
4	**Opposite direction side swipe**	0	1	13	***14***	***3.28***
5	**Head on collision**	1	9	11	***21***	***4.92***
6	**Rear end collision**	0	12	42	***54***	***12.65***
7	**Collision with parked vehicle**	0	2	4	***6***	***1.41***
8	**Collision while one vehicle reversing**	0	0	0	***0***	***0.00***
9	**Other - Vehicle to Vehicle**	0	6	22	***28***	***6.56***
Sub Total		***6***	***65***	***198***	***269***	
Single Vehicle Accident On Carriageway						
10	**Struck pedestrian**	3	8	29	***40***	***9.37***
11	**Struck animal (not ridden)**	0	1	6	***7***	***1.64***
12	**Struck object (on carriageway)**	0	0	1	***1***	***0.23***
13	**Overturned**	0	6	21	***27***	***6.32***
14	**Fall from moving vehicle**	0	0	1	***1***	***0.23***
15	**Other - Single Vehicle on Carriageway**	0	1	8	***9***	***2.11***
Sub Total		***3***	***16***	***66***	***85***	
Single Vehicle Accident Off Carriageway						
16	**Struck pedestrian (on footpath etc.)**	0	0	1	***1***	***0.23***
17	**Struck Vehicle**	0	0	0	***0***	***0.00***
18	**Struck animal not ridden**	0	0	0	***0***	***0.00***
19	**Struck object (off carriageway)**	5	17	44	***66***	***15.46***
20	**Overturned**	0	0	0	***0***	***0.00***
21	**No object struck**	0	3	3	***6***	***1.41***
22	**Other accidents**	0	0	0	***0***	***0.00***
Sub Total		***5***	***20***	***48***	***73***	
Total		***14***	***101***	***312***	***427***	***100.00***

'Vehicle to vehicle' collisions are responsible for more than 63% of all casualties. Right angle collisions are responsible for about 22% of all casualties followed by rear end collisions. The 'Struck object' accident type was responsible for more fatalities than any other type in 2008.

Table 4.2: 2008 Total Casualties by Casualty Class and Position in Vehicle

Casualty position Code	Casualty position	Fatality	Admitted to Hospital	Received Medical Treatment	*Sub Total*	*% of Total Casualties*
1	**Driver**	3	43	123	***169***	***39.58***
2	**Front left passenger**	2	7	33	***42***	***9.84***
3	**Front centre passenger**	0	0	0	***0***	***0.00***
4	**Rear right passenger**	1	4	5	***10***	***2.34***
5	**Rear centre passenger**	0	1	3	***4***	***0.94***
6	**Rear left passenger**	1	1	8	***10***	***2.34***
7	**Motorcycle**	4	22	51	***77***	***18.03***
8	**Motorcycle pillion**	0	1	2	***3***	***0.70***
9	**Pedal cyclist**	0	12	51	***63***	***14.76***
10	**Pedal cyclist pillion**	0	0	0	***0***	***0.00***
11	**Rear bus passenger**	0	0	0	***0***	***0.00***
12	**Pedestrian**	3	8	30	***41***	***9.60***
13	**Other**	0	2	6	***8***	***1.87***
Total		***14***	***101***	***312***	***427***	***100.00***

Drivers and motorcycle riders account for more than 58% of all casualties. Pedal cyclists account for around 15% of all casualties.

Table 4.3: 2008 Total Casualties by Casualty Class and Traffic Control

Traffic Control Code	Traffic Control	Fatality	Admitted to Hospital	Received Medical Treatment	*Sub Total*	*% of Total Casualties*
0	**Unknown**	0	0	3	***3***	***0.70***
1	**Uncontrolled**	8	65	198	***271***	***63.47***
2	**Control Not Operated**	0	0	1	***1***	***0.23***
3	**Traffic Lights**	2	12	53	***67***	***15.69***
4	**Give Way Sign**	4	23	44	***71***	***16.63***
5	**Stop Sign**	0	0	7	***7***	***1.64***
6	**Police**	0	0	0	***0***	***0.00***
7	**School crossing**	0	0	0	***0***	***0.00***
8	**Marked Pedestrian Crossing**	0	1	6	***7***	***1.64***
9	**Other**	0	0	0	***0***	***0.00***
Total		***14***	***101***	***312***	***427***	***100.00***

About 64% of all casualties occurred at uncontrolled locations, around 16% at traffic lights and 17% at Give Way signs. Similar trends were observed in previous years.

Table 4.4: 2008 Total Casualties by Casualty Class and Road Location

Crash Location Code	Road Location	Fatality	Admitted to Hospital	Received Medical Treatment	*Sub Total*	*% of Total Casualties*
1	**Cross Intersection**	3	9	62	***74***	***17.33***
2	**T Intersection**	5	33	71	***109***	***25.53***
3	**Y Intersection**	0	0	3	***3***	***0.70***
4	**Multiple Intersection**	0	2	0	***2***	***0.47***
5	**Roundabout**	0	7	21	***28***	***6.56***
6	**Median Opening**	1	20	65	***86***	***20.14***
7	**Not Median Opening**	5	30	87	***122***	***28.57***
8	**Unknown**	0	0	3	***3***	***0.70***
Total		***14***	***101***	***312***	***427***	***100.00***

More casualties occurred at intersection locations than the midblock locations of 'median opening' and 'not median opening'. Cross and T Intersections account for about 43% of all casualties.

Table 4.5: 2008 Total Casualties by Casualty Class and Safety Device

Safety Device Code	Safety Device Type	Fatality	Admitted to Hospital	Received Medical Treatment	*Sub Total*	*% of Total Casualties*
1	**Belt worn**	5	54	167	***226***	***52.93***
2	**Belt not worn**	2	1	2	***5***	***1.17***
3	**No belt installed**	0	0	0	***0***	***0.00***
4	**Crash helmet worn**	3	31	94	***128***	***29.98***
5	**Crash helmet not worn**	0	2	5	***7***	***1.64***
6	**Other**	3	7	22	***32***	***7.49***
7	**Not known**	1	6	22	***29***	***6.79***
Total		***14***	***101***	***312***	***427***	***100.00***

A high level of compliance with seat belt and motorcycle helmet wearing is noted.

Table 4.6: 2008 Total Casualties by Casualty Class, Gender and Age

Injury Type	Sex	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	>70	*Unknown*	Total
Fatal	Female		1											4		*5*
Fatal	Male		1	1	1	2		1		1		1		1		*9*
Admitted to Hospital	Female		6	4	15	0	9	6	8	12	7	6	2	4	3	*82*
Admitted to Hospital	Male	1	15	13	6	3	2	3	9	3	1	1	1	2	4	*64*
Admitted to Hospital	Unknown															
Received Medical Treatment	Female	5	7	20	6	5	2	1	3	3	2	1	2	2	20	*79*
Received Medical Treatment	Male	21	22	28	24	12	13	9	16	10	4	4	2	6	14	*185*
Received Medical Treatment	Unknown														3	*3*
Total		*27*	*52*	*66*	*52*	*22*	*26*	*20*	*36*	*29*	*14*	*13*	*7*	*19*	*42*	*427*

Table 4.7: 2008 Vehicle Controller Casualties by Casualty Class, Gender and Age

Injury Type	Sex	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	>70	Unknown	*Total*
Fatal	Female													1		*1*
Fatal	Male			1	1	1				1		1		1		*6*
Admitted to Hospital	Female		3	4	5	0	2	1	1	1	2	1	1	2	2	*25*
Admitted to Hospital	Male		9	13	5	3	2	3	9	3	1	1	0	1	2	*52*
Admitted to Hospital	Unknown															
Received Medical Treatment	Female	1	5	13	13	4	6	6	6	9	6	5	2	2	5	*83*
Received Medical Treatment	Male	4	16	24	23	9	12	9	16	10	4	3	1	4	6	*141*
Received Medical Treatment	Unknown														*1*	*1*
Total		*5*	*33*	*55*	*47*	*17*	*22*	*19*	*32*	*24*	*13*	*11*	*4*	*11*	*16*	*309*

Table 4.8: 2008 Pedestrian Casualties by Casualty Class, Gender and Age

Injury Type	Sex	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	>70	Unknown	*Total*
Fatal	Female													2		*2*
Fatal	Male							1								*1*
Admitted to Hospital	Female								1	1			1	1		*4*
Admitted to Hospital	Male		2		1								1			*4*
Received Medical Treatment	Female	2		2	1	1	1			3					1	*11*
Received Medical Treatment	Male	7	3	3			1					1	1	1	2	*19*
Total		*9*	*5*	*5*	*2*	*1*	*2*	*1*	*1*	*4*		*1*	*3*	*4*	*3*	*41*

In 2008, about 46% of all casualties occurred to people younger than 30 years of age. The single most vulnerable age group seem to be between 20 and 24 accounting for about 15% of all casualties. Males account for 60% of all casualties.

Vehicle controller casualties indicate a similar trend: Vehicle controllers aged between 15 and 30 account for around 44% of all vehicle controller casualties. Pedestrian casualties account for around 10% of all casualties. Young pedestrians aged less than 24 seem to be the most vulnerable accounting for about 46% of all pedestrian casualties. In 2008, three pedestrians were killed.

Table 4.9: 2008 Total Casualties by Casualty Class and Fixed Object Struck

Fixed Object Code	Fixed Object Struck	Fatality	Admitted to Hospital	Received Medical Treatment	*Sub Total*	*% of Total Casualties*
0	**Not Applicable**	9	84	266	***359***	***84.08***
1	**Light or Tele Pole**	0	0	10	***10***	***2.34***
2	**Sign or Signal Pole**	0	0	3	***3***	***0.70***
3	**Tree**	3	8	19	***30***	***7.03***
4	**Building or Structure**	1	4	2	***7***	***1.64***
5	**Kerb or Guard Rail**	1	5	9	***15***	***3.51***
6	**Guide Post**	0	0	0	***0***	***0.00***
7	**Other**	0	0	3	***3***	***0.70***
Total		***14***	***101***	***312***	***427***	***100.00***

Around 15% of all casualties were involved in a 'struck object' crash. Of these casualty crashes, the most common object struck was a tree.

VEHICLES INVOLVED IN ROAD TRAFFIC CRASHES IN 2008

Table 5.1: 2008 Total Vehicles Involved in Crash by Vehicle Type and Accident Type

Accid Type Code	Accident Type	Car or Station Wagon	Taxi or Hire Car	Utility	Panel Van	Articulated Vehicle (Semi)	Truck (Excl. Semi)	Bus	Bicycle	Emergency Vehicle	Motor Cycle/ Scooter	Not Known	*Sub Total*	*% of Total Vehicles*
VEHICLE TO VEHICLE COLLISION														
1	Right turn into oncoming vehicle	664	10	29	7	0	7	2	16	0	14	8	***757***	***5.39***
2	Right angle collision	1997	18	101	18	0	22	17	70	2	43	10	***2298***	***16.36***
3	Same direction side swipe	1040	14	70	12	7	43	42	13	0	20	26	***1287***	***9.16***
4	Opposite direction side swipe	76	0	7	3	0	2	1	1	1	2	1	***94***	***0.67***
5	Head on collision	49	1	0	0	0	0	0	1	0	5	3	***59***	***0.42***
6	Rear end collision	5868	56	358	79	0	72	56	15	0	59	97	***6660***	***47.41***
7	Collision with parked vehicle	506	6	35	11	0	25	10	2	0	1	9	***605***	***4.31***
8	Collision while one vehicle reversing	364	7	31	6	0	11	1	1	1	0	5	***427***	***3.04***
9	Other - Vehicle to Vehicle	824	19	62	22	0	19	17	53	5	17	1	***1039***	***7.40***
SINGLE VEHICLE ACCIDENT														
10	Struck pedestrian	43	0	2	0	0	1	2	0	0	1	0	***49***	***0.35***
11	Struck animal (not ridden)	149	3	8	0	0	0	2	1	0	8	0	***171***	***1.22***
12	Struck object	38	2	0	0	0	1	0	1	0	1	0	***43***	***0.31***
13	Overturned	27	0	3	1	0	4	0	3	0	27	1	***66***	***0.47***
14	Fall from moving vehicle	0	0	0	0	0	0	0	0	0	5	0	***5***	***0.03***
15	Other - Single Vehicle on Carriageway	40	0	1	0	0	0	0	2	0	7	0	***50***	***0.35***
16	Struck pedestrian (on footpath etc.)	1	0	0	0	0	0	0	0	0	0	0	***1***	***0.01***
17	Struck vehicle (off road)	3	0	0	0	0	0	0	0	0	0	0	***3***	***0.02***
18	Struck animal (not ridden)	3	0	0	0	0	0	0	0	0	0	1	***4***	***0.03***
19	Struck object	344	3	24	1	0	6	2	3	2	11	1	***397***	***2.82***
20	Overturned	4	0	0	0	0	1	0	0	0	0	0	***5***	***0.03***
21	No object struck	22	0	2	0	0	0	0	0	0	4	0	***28***	***0.20***
22	Other - Single Vehicle off Carriageway	0	0	0	0	0	0	0	0	0	0	0	***0***	***0.00***
Total		***12062***	***139***	***733***	***160***	***7***	***214***	***152***	***182***	***11***	***225***	***163***	***14048***	**100.00**

The number of vehicles involved in road traffic crashes in 2008 was 14048

Amongst all accident types, the largest number of vehicles were involved in 'rear end collisions'. The most common accident types for motorcyclists seem to be 'rear end collision' & 'Right-angle collision'. About 28% of all motorcycles involved in crashes were involved in single vehicle crashes. The most common accident type for cyclists is the 'right angle collision'.

Table 5.2: 2008 Total Vehicles Involved in Crashes by Vehicle Types and Severity

Vehicle Type	Property Crashes	Injury Crashes	Fatal Crashes	Sub Total	% of Total Vehicles
Car or Station Wagon	11653	396	13	***12062***	***85.86***
Taxi or Hire Car	133	6	0	***139***	***0.99***
Utility	699	31	3	***733***	***5.22***
Panel Van	157	3	0	***160***	***1.14***
Articulated Vehicle (Semi)	7	0	0	***7***	***0.05***
Truck (Excl. Semi)	203	11	0	***214***	***1.52***
Bus	146	6	0	***152***	***1.08***
Bicycle	116	66	0	***182***	***1.30***
Emergency Vehicle	9	2	0	***11***	***0.08***
Motor Cycle / Scooter	141	80	4	***225***	***1.60***
Other	6	0	0	***6***	***0.04***
Not Known	157	0	0	***157***	***1.12***
Total	***13427***	***601***	***20***	***14048***	***100.00***

About 4% of all vehicles involved in traffic crashes were involved in injury crashes. However, out of all bicycles and motorcycles involved in crashes, 36% and 37% were involved in injury crashes respectively. 20 vehicles were involved in fatal crashes.

Table 5.3: 2008 Total Vehicles Involved in Crashes by Vehicle Types and Traffic Control

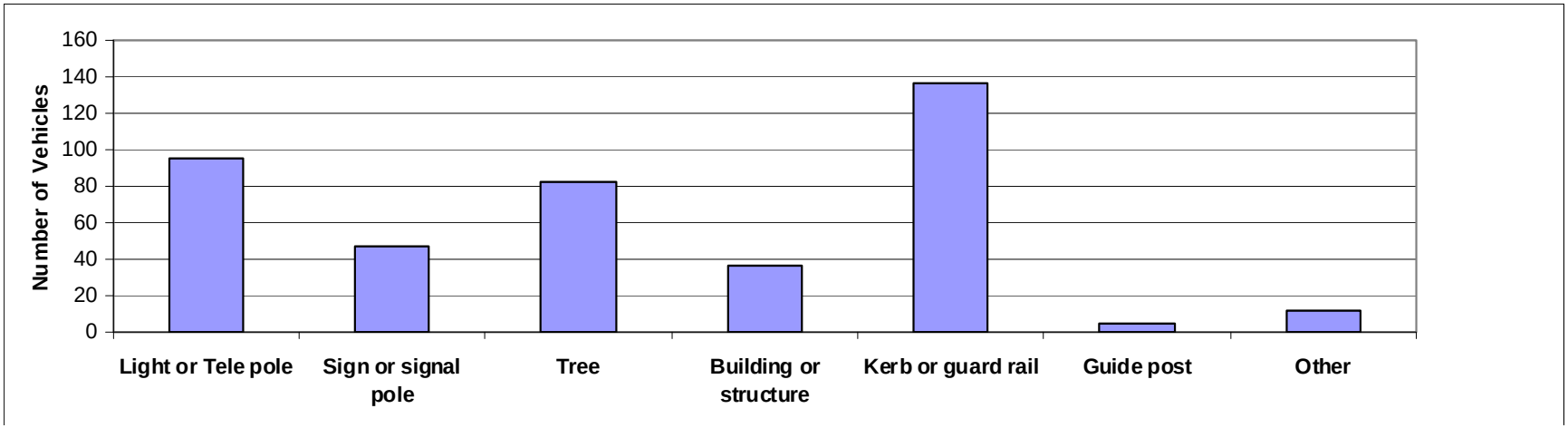
Traffic Control Code	Traffic Control	Car or Station Wagon	Taxi or Hire Car	Utility	Panel Van	Articulated Vehicle (Semi)	Truck (Excl. Semi)	Bus	Bicycle	Emergency Vehicle	Motor Cycle/ Scooter	Not *Known*	Sub Total	% of Total Vehicles
1	**Uncontrolled**	5731	72	373	79	2	138	97	80	9	135	63	***6779***	***48.26***
2	**Control Not Operated**	35	0	3	1	0	1	1	0	0	2	1	***44***	***0.31***
3	**Traffic Lights**	2932	37	167	46	2	41	24	31	2	27	59	***3368***	***23.97***
4	**Give Way Sign**	2593	24	151	26	3	24	23	56	0	45	20	***2965***	***21.11***
5	**Stop Sign**	394	3	18	5	0	6	1	5	0	11	2	***445***	***3.17***
6	**Police**	10	0	2	0	0	1	0	0	0	0	1	***14***	***0.10***
7	**School Crossing**	10	1	1	0	0	0	0	0	0	0	0	***12***	***0.09***
8	**Marked Pedestrian Crossing**	111	1	5	0	0	0	3	6	0	2	3	***131***	***0.93***
9	**Other**	61	0	3	0	0	0	1	1	0	1	2	***69***	***0.49***
0	**Unknown**	185	1	10	3	0	3	2	3	0	2	12	***221***	***1.57***
Total		***12062***	***139***	***733***	***160***	***7***	***214***	***152***	***182***	***11***	***225***	***163***	***14048***	***100.00***

In relation to traffic control types, the trend of previous years continues. Vehicles seem to be more involved in crashes at uncontrolled intersections than Give Way, traffic lights and Stop sign controls. It also seems that motorcycles and bicycles record a relatively high involvement in crashes at uncontrolled intersections.

Table 5.4: 2008 Total Vehicles Involved in Crashes by Vehicle Types and Fixed Object Struck

Fixed Object Code	Fixed Object	Car or Station Wagon	Taxi or Hired Car	Utility	Panel Van	Articulated Vehicle (Semi)	Truck (Excl. Semi)	Bus	Bicycle	Emergency Vehicle	Motor *Cycle*/ Scooter	Not Known	Sub Total	% of Total Vehicles
1	Light or Tele pole	76	1	3	1	0	2	0	0	0	0	1	***84***	***0.60***
2	Sign or signal pole	34	1	1	0	0	0	0	0	1	1	0	***38***	***0.27***
3	Tree	82	0	6	0	0	0	1	0	1	5	0	***95***	***0.68***
4	Building or structure	23	0	2	0	0	1	0	0	0	1	0	***27***	***0.19***
5	Kerb or guard rail	111	0	9	0	0	3	1	3	0	4	0	***131***	***0.93***
6	Guide post	3	0	1	0	0	0	0	0	0	0	0	***4***	***0.03***
7	Other	15	1	2	0	0	0	0	0	0	0	0	***18***	***0.13***
0	Not Applicable	11718	136	709	159	7	208	150	179	9	214	162	***13651***	***97.17***
Total		***12062***	***139***	***733***	***160***	***7***	***214***	***152***	***182***	***11***	***225***	***163***	***14048***	***100.00***

2008 Total Vehicles Involved in Crashes by Fixed Object Struck



Around 3% per cent of all vehicles involved in crashes hit a fixed object.
Cars, station wagons most commonly hit trees, poles and kerbs or guard rails, while motor cycles most commonly hit tree and kerbs or guard rails.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