



briefing notes - road safety issues

Auckland City

New Zealand Transport Agency has prepared this eleventh road safety issues report. It is based on reported crash data and trends for the 2005–2009 period. The intent of the report is to highlight the key road safety issues and be a resource to identify possible ways to reduce the number of road deaths and injuries in Auckland City.

All the material unless otherwise stated in this report applies only to local roads. Local roads are all non State Highway roads in Auckland City.

In March the Government released “Safer Journeys” the road safety strategy for the next ten years. The two following pages contain a brief introduction to the strategy and a link to find more information.

The issues chosen for this report are drawn from either the most common crash types, those that appear over-represented when Auckland City is compared to similar local bodies or those with high social cost (high numbers of fatal and serious crashes mainly).

We have included a brief overview of crashes in Auckland City and we encourage safety engaged staff at Auckland City to use their free access to the Ministry of Transport’s Crash Analysis System (CAS) to delve deeper into the highlighted issues.

All data and maps in this note are from CAS.

Major road safety issues *

Auckland City

Alcohol

Intersections

Crashes at night

Pedestrian crashes

Motorcycle crashes

National priorities from Road Safety 2020— Safer Journeys

Speed

Alcohol / Drugs

Young Drivers

Roads and Roadsides

Motorcyclists

2009 road trauma

Casualties

Auckland City

Deaths

9

Serious casualties

128

Minor casualties

949

Crashes

Auckland City

Fatal crashes

8

Serious injury crashes

116

Minor injury crashes

761

Non-injury crashes

2829

* not in any specific order of importance

Safer Journeys

For the past decade road safety in New Zealand has been directed by the Road Safety 2010 strategy.

This strategy was introduced in 2003 and aimed to reduce deaths and casualties from road crashes.

In March 2010 the Government released a new strategy, "Safer Journeys", to build on the gains made under the Road Safety to 2010.

Under the new strategy, road safety will be looked at from a system wide approach rather than focusing so strongly on the road user.

The emphasis will be on improving all the parts of the road transport system that impact on safety; the road, the vehicle, travel speeds and the road user.

A number of areas were chosen as the areas of focus under the 2020 strategy.

These areas were assigned a priority, based on research that shows five major areas of concern, six areas of lesser concern, and two areas where continued focus is needed, or concern is emerging.

These divisions are shown in "table 3" opposite.

This table is a direct extract from page 12 of the Safer Journeys document which can be found here: <http://www.transport.govt.nz/saferjourneys/Documents/SaferJourneyStrategy.pdf>

We have made changes to the wording and way data is represented in these briefing notes to reflect and emphasize the connections to the new strategy.

In particular we have included more tables showing age distribution as problems with the safety of young drivers as a particular focus of Safer Journeys.

We have also prepared a table on the following page which shows the areas of "high concern" under Safer Journeys 2020 strategy.

This table allows some relative comparison of Safer Journeys priorities across the local bodies in the area covered by the Auckland NZTA Office.

Table 3 – Safer Journeys' areas of concern and the Safe System

AREAS OF CONCERN WE WILL ADDRESS	WHERE WE WILL TAKE ACTION ACROSS THE SAFE SYSTEM			
	SAFE ROADS AND ROAD-SIDES	SAFE SPEEDS	SAFE VEHICLES	SAFE ROAD USE
Areas of high concern				
Reducing alcohol/drug impaired driving			✓	✓
Increasing the safety of young drivers	✓	✓	✓	✓
Safe roads and roadsides	✓			
Safe speeds	✓	✓	✓	
Increasing the safety of motorcycling	✓	✓	✓	✓
Areas of medium concern				
Improving the safety of the light vehicle fleet			✓	✓
Safe walking and cycling	✓	✓	✓	✓
Improving the safety of heavy vehicles	✓	✓	✓	✓
Reducing the impact of fatigue	✓	✓	✓	✓
Addressing distraction	✓		✓	✓
Reducing the impact of high risk drivers		✓	✓	✓
Areas of continued and emerging focus				
Increasing the level of restraint use			✓	✓
Increasing the safety of older New Zealanders	✓	✓	✓	✓

For some priorities (eg motorcycling), complementary action will be taken across all four areas of the Safe System. For others (eg reducing the impact of drink driving or safe roads), more effort would be focussed on one or two of the four Safe System areas.

Table source: Ministry of Transport 2020 Safer Journeys

Status of the areas of “high concern” from Safer Journeys 2020 for the Northland and Auckland Regions 2005 to 2009

(table below refers only to fatal and serious crashes except for the “intersection” column for reasons of sample size and includes local roads as well as State Highways)

Safer Journeys area of concern	Reducing alcohol and drug impaired driving	Increase the safety of young drivers	Safer roads and roadsides			Reducing speed related crashes	Increasing the safety of motorcycling
	Percentage of fatal and serious crashes with this factor	Percentage of fatal and serious crashes with at fault drivers aged 24 years or less	Percentage of fatal and serious crashes with an object struck	Number of urban intersections with three or more injury crashes in the last five years	Number of rural intersections with three or more injury crashes in the last five years	Percentage of fatal and serious crashes with this factor	Percentage of fatal and serious crashes involving a motorcyclist
Far North District	31	32	53	3	5	30	13
Kaipara District	28	38	63	3	1	26	13
Whangarei District	29	42	51	19	6	30	15
Rodney District	29	32	53	13	13	24	20
North Shore City	26	36	33	113	2	15	17
Waitakere City	27	34	41	93	6	27	16
Auckland City	24	32	29	345	12	16	19
Manukau City	33	42	40	158	17	29	13
Papakura District	22	34	46	23	4	20	21
Franklin District	25	28	53	8	10	26	18
Northland Region	30	37	54	25	12	29	14
Auckland Region	27	35	37	753	64	22	17
New Zealand	23	34	45	1938	320	23	18

Auckland City overview

In 2009 on local roads in Auckland City there were 855 injury crashes and 2829 non-injury crashes.

In addition on State Highways in Auckland City there were 251 injury crashes and 889 non-injury crashes. The table below shows the number of injuries resulting from the 885 injury crashes by rural or urban areas for **local** roads (rural is defined as an area with a speed limit of 80km/h or more).

Casualties by urban / rural 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	0	2	9	11
Urban	9	126	939	1074
Total	9	128	948	1085

Over ten years both fatal and serious crashes have shown a downward trend in the city. Minor injury crashes rose sharply in 2003 (almost certainly as a result of improved Police reporting) and have been relatively stable since.

Crashes at intersections continue to be a focus for the city with 56 percent of injury crashes and 50 percent of fatal and serious crashes happening at them. This is above that seen in peer local bodies. Forty-nine percent of injury pedestrian crashes also occur at intersections.

Crash trends in Auckland City				
Year	Fatal crashes	Serious crashes	Minor crashes	Total crashes
2000	10	135	546	691
2001	9	138	531	678
2002	12	154	604	770
2003	20	109	823	952
2004	13	119	723	855
2005	9	124	805	938
2006	12	118	796	926
2007	4	110	772	886
2008	6	126	766	898
2009	8	116	765	889

Local road crash characteristics 2005 to 2009		
Crash type or contributory cause	Percentage fatal and serious crashes of this type or contributory cause	Percentage all injury crashes of this type or contributory cause
Alcohol related	23	14
At intersections	50	56
At night	40	33
Pedestrians	27	15
Motorcyclists	20	12

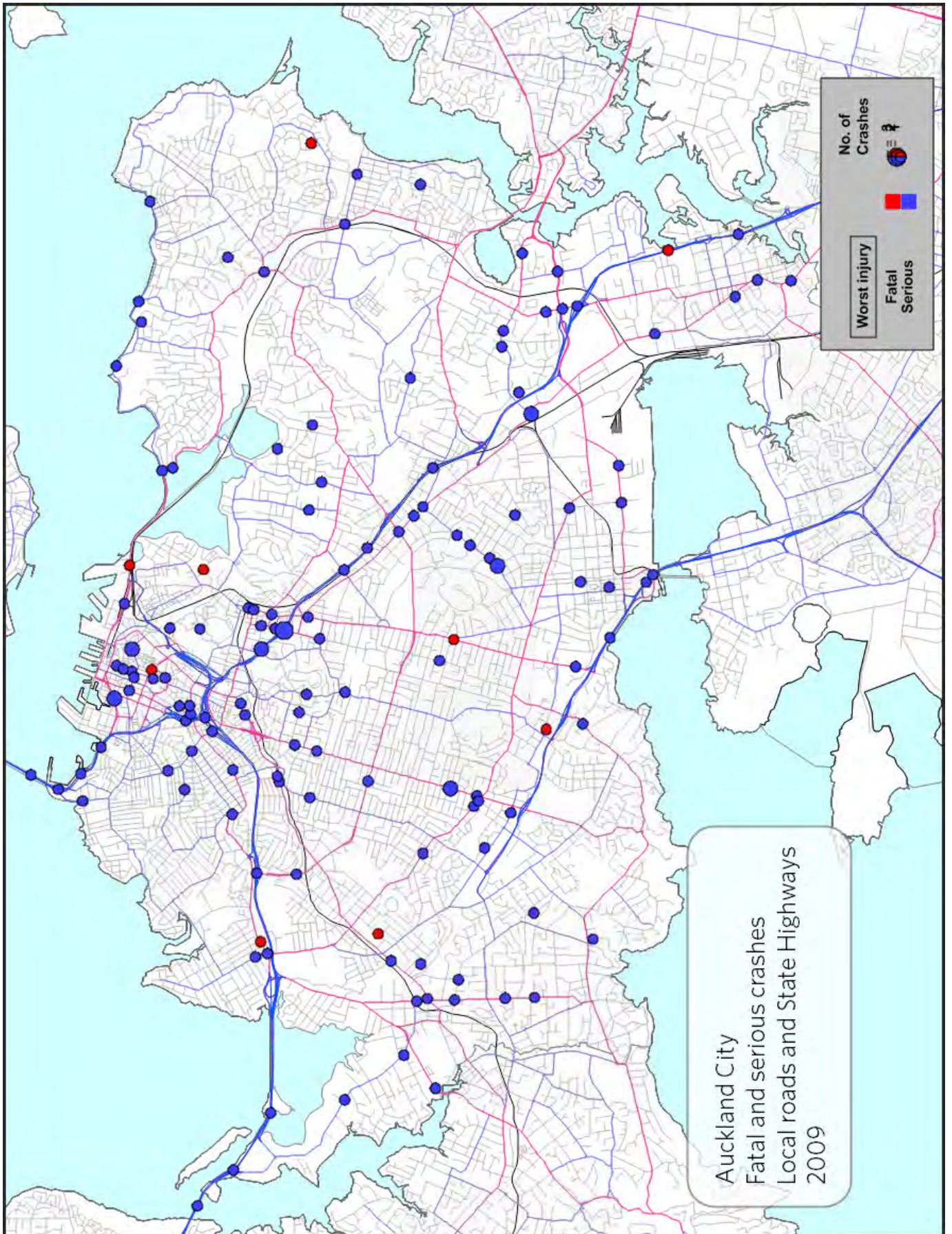
Further information about the 4533 injury and 15532 non-injury crashes on **local** roads in Auckland City 2005 to 2009:

- 41 deaths, 672 serious injuries and 4934 minor injuries
- Worst month May, best January
- Worst day Friday, best Sunday
- 22 percent on wet roads
- 32 percent at night
- 57 percent at intersections
- 6778 roadside objects struck *
- Most represented five year age group in at fault drivers in injury crashes, 20 to 24 years (19 percent of at fault drivers)
- Social cost of crashes in 2009 \$219.6m

Further information about the 1312 injury and 5133 non-injury crashes on **State Highways** in Auckland City 2005 to 2009:

- 12 deaths, 113 serious injuries and 1611 minor injuries
- Worst month June, best January
- Worst day Friday, best Sunday
- 25 percent on wet roads
- 30 percent at night
- 20 percent at intersections
- 1466 roadside objects struck *
- Most represented five year age group in at fault drivers in injury crashes, 20 to 24 years (18 percent of at fault drivers)
- Social cost of crashes in 2009 \$68.6m

* It needs to be noted that if a vehicle hits the same type of object more than once it is only counted in CAS once.



Alcohol

Alcohol affects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver's blood alcohol level rises.

A driver over the legal limit (80mg of alcohol per 100ml of blood) is sixteen times more likely to be involved in a fatal crash than a sober driver.

In Auckland City, alcohol was a factor in 23 percent of fatal and serious crashes and 14 percent of injury crashes.

Number of alcohol related injury crashes			
Crash year	Open road	Urban road	Total
2005	3	103	106
2006	4	154	158
2007	6	103	109
2008	1	132	133
2009	0	119	119
Total	14	611	625

(Open road is classified as any area with a speed limit of 80km/hr or more)

Age group of at fault drivers in alcohol related injury crashes 2005 to 2009 and 25 years ago (prior to lowering the drinking age)		
Age group	Percentage drivers in this age group 2005 to 2009	Percentage drivers in this age group 1980 to 1984
15-19	17	18
20-24	22	28
25-29	17	17
30-34	11	15
35-39	10	7
40-44	8	6
45-49	6	3
50-54	3	3
55-59	2	2
60-64	1	1
65-69	1	1
70-74	1	0
75+	0	0

It is interesting to note the changing age patterns of those choosing to drink and crash.

In Auckland City there has been a shift from being weighted to young drivers to a broader age spread. Twenty-five years ago 63 percent of at fault drivers were aged under 30. Today this is 56 percent.

It would appear then that while very young people are targeted for their binge drinking culture, which may manifest in other health and law issues, in the city this has not translated into an increased proportion in youth alcohol related crashes.

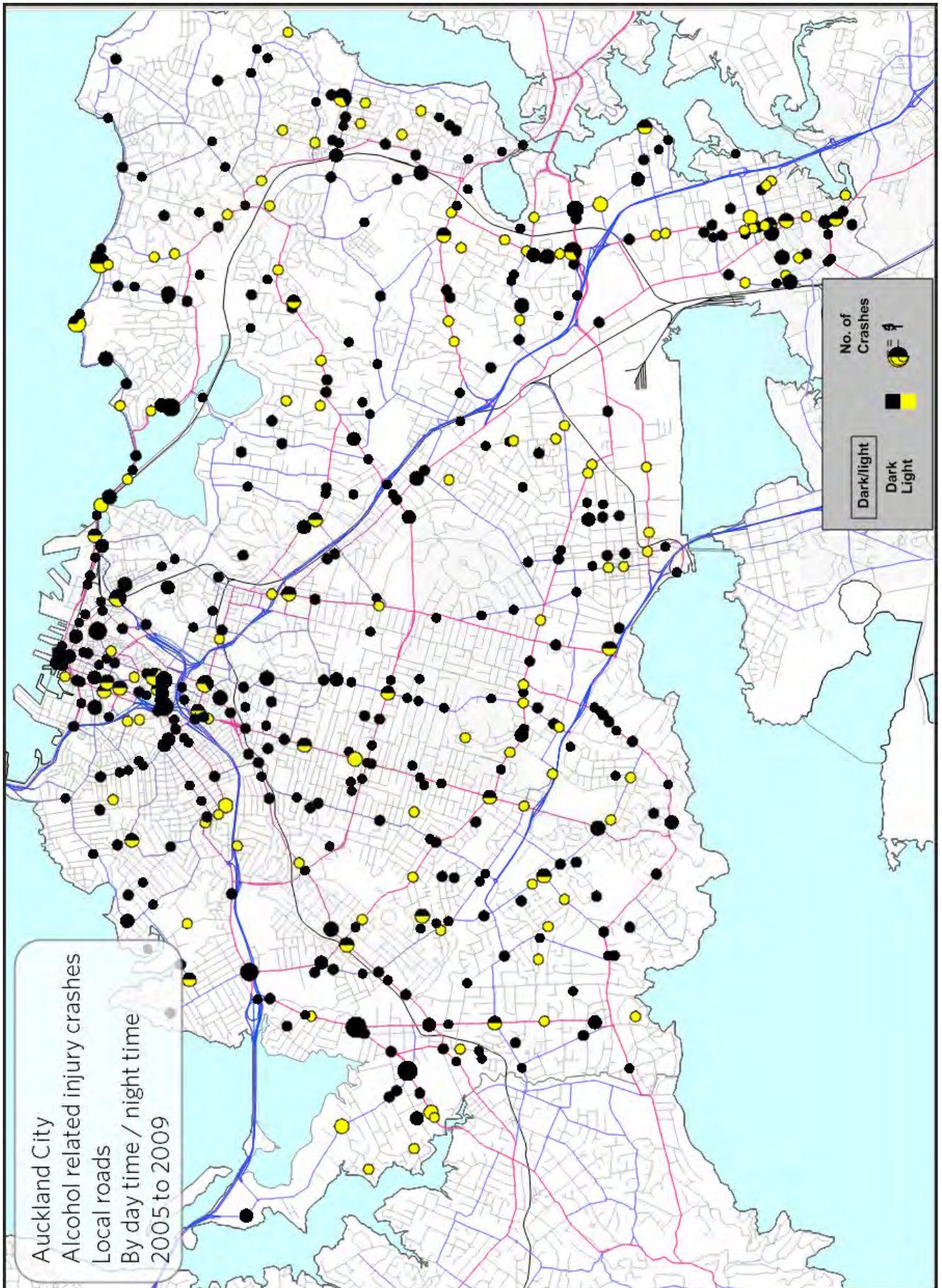
In addition it does need to be noted that despite a population increase in the City the number of alcohol related injury crashes has fallen from 992 in five years 25 years ago to the 625 in the last five years.

Further information about the 625 alcohol related injury crashes on **local** roads in Auckland City 2005 to 2009:

- 17 deaths, 173 serious injuries and 694 minor injuries
- 81 percent of at fault drivers were male
- Most common crash type "lost control at a bend" (203 crashes)
- 44 percent at intersections
- 76 percent night time
- Worst three hour time period, 9pm to midnight
- Worst month October, best January and March (equal)
- Worst day Saturday, best Monday
- Number of roadside objects struck, 526
- Most common object struck, parked vehicle

Further information about the 147 alcohol related injury crashes on **State Highways** in Auckland City 2005 to 2009:

- 5 deaths, 36 serious injuries and 182 minor injuries
- 76 percent of at fault drivers were male
- Most common crash type "lost control at a bend" (46 crashes)
- 27 percent at intersections
- 76 percent night time
- Worst three hour time period, midnight to 3am
- Worst month April, best November
- Worst day Sunday, best Monday
- Number of roadside objects struck, 132
- Most common object struck, guard rail



Intersections

During the five year period 2005 to 2009 within Auckland City there were a total of 2549 injury crashes at intersections.

Injuries at Intersections (casualties)					
Injury type	2005	2006	2007	2008	2009
Fatality	7	3	1	5	2
Serious	67	76	62	65	67
Minor	568	552	558	597	551
Total	642	631	621	667	620

The most common crash type at intersections occurs when a driver turns right (commonly into a side street or driveway) and is hit by a vehicle approaching from the opposite direction on the same road (488 crashes). The second most common being a vehicle turning right, (typically from a side street) and being hit by a vehicle approaching from the right (336 crashes). Drivers at fault aged below 25 account for 30 percent of all at fault drivers.

Age and gender of at fault drivers in injury crashes at intersections 2005 to 2009

Age group	Female	Male	Total
15-19	92	155	247
20-24	144	276	420
25-29	103	180	283
30-34	71	158	229
35-39	74	146	220
40-44	92	123	215
45-49	62	116	178
50-54	51	79	130
55-59	37	50	87
60-64	28	50	78
65-69	15	30	45
70-74	9	17	26
75+	31	32	63
Total	809	1412	2221

In Auckland City there are 325 intersection sites which have had three or more injury crashes in the last five years, including 11 sites with 10 or more injury crashes in the past five years.

Locations with eleven or more injury crashes between 2005 to 2009 including at least one in 2009

Intersection name	2005 to 2009	2009
Gt North / Bullock track	23	7
Ash / Rosebank	16	3
Tamaki / Ngapipi	14	4
Queen / City	12	1
Gt North / Carrington	12	5
Gt South / Main Highway	11	2
Customs St West / Lower Albert	11	1

Further information about the 2549 injury crashes at intersections on **local** roads in Auckland City 2005 to 2009:

- 18 deaths, 337 serious injuries and 2826 minor injuries
- 23 percent wet roads
- 32 percent night time
- Worst month May, best January
- Worst day Friday, best Saturday
- Worst three hour time period, 3pm to 6pm

Further information about the 239 injury crashes at intersections on **State Highways** in Auckland City 2005 to 2009:

- 5 deaths, 28 serious injuries and 275 minor injuries
- 29 percent wet roads
- 44 percent night time
- Worst month April, best January
- Worst day Sunday, best Tuesday
- Worst three hour time period, midday to 3pm

Night time crashes

Between 2005 and 2009 forty percent of fatal and serious crashes in Auckland City occurred at night.

Night time injury crashes					
Road type	2005	2006	2007	2008	2009
Open	2	6	9	4	2
Urban	291	333	265	272	295
Total	293	339	274	276	297

Forty percent of all night times crashes in Auckland City are the responsibility of drivers under the age of 25 years and are male drivers in particular.

Data from the Ministry of Transport's Household Travel survey can give an approximate value for the amount of travel undertaken at night for various age groups to give some perspective to the rate these age groups are crashing.

Looking at night travel as a whole (nationally) approximately 14 percent is undertaken by 15 to 24 year olds, 20 percent by 25 to 34 year olds, 24 percent by 35 to 44 year olds, 24 percent by 45 to 54 year olds and 19 percent by all other age groups.

Age group and gender of at fault drivers in night time injury crashes 2005 to 2009			
Age group	Female	Male	Total
15 to 19	64	164	228
20 to 24	78	220	298
25 to 29	58	140	198
30 to 34	32	94	126
35 to 39	26	82	108
40 to 44	33	81	114
45 to 49	27	57	84
50 to 54	18	40	58
55 to 59	7	30	37
60 to 64	10	14	24
65 to 69	2	13	15
70 to 74	4	5	9
75+	2	10	12
Total	361	950	1311

It is interesting to note in the bullet points below that alcohol as a factor seems far more prevalent on local roads than State Highways. This would suggest that drivers see local roads as a slightly softer option in regards to avoiding probable enforcement intervention.

Some redistribution of alcohol check points in particular may be worth considering.

Further information about the 1479 injury night time crashes on **local** roads in Auckland City 2005 to 2009:

- 22 deaths, 283 serious injuries and 1654 minor injuries
- 15 percent of crashes involved a pedestrian
- 72 percent of at fault drivers were male
- Most common crash type "at an intersection" (820 crashes)
- 32 percent of crashes involved alcohol
- 6 percent of crashes involved "fatigue" as a contributory factor
- 15 percent of crashes involved "speed too fast for the conditions"
- 31 percent were in the wet
- 36 percent of crashes involved a roadside object being struck
- Full licences were held by 51 percent of at fault drivers
- Worst day Saturday, best Monday

Further information about the 464 injury night time crashes on **State Highways** in Auckland City 2005 to 2009:

- 9 deaths, 52 serious injuries and 560 minor injuries
- 68 percent of at fault drivers were male
- Most common crash type "rear end" (194 crashes)
- 24 percent of crashes involved alcohol
- 5 percent of crashes involved "fatigue" as a contributory factor
- 17 percent of crashes involved "speed too fast for the conditions"
- 36 percent of crashes were in the wet
- 22 percent of crashes were at intersections
- 41 percent of crashes involved a roadside object being struck
- Full licences were held by 57 percent of at fault drivers
- Worst day Friday, best Monday

Pedestrians

In the last five years in Auckland City 27 percent of fatal and serious crashes and 15 percent of all injury crashes involved a pedestrian.

Pedestrian injuries 2005 to 2009					
Pedestrian injuries	2005	2006	2007	2008	2009
Fatal	3	4	3	0	4
Serious	39	35	21	36	32
Minor	133	125	91	100	107
Total	175	164	115	136	143

The most common type of pedestrian crash is when a pedestrian is crossing the road and is hit by a vehicle approaching from their right (311 crashes). There are 62 locations in the city with three or more pedestrian injury crashes in the last five years.

Sites with six or more injury crashes in the last five years and at least one in 2009 are in the table below.

Locations with six or more injury pedestrian crashes in the last five years - including at least one crash in 2009		
Location	Number of crashes 2005 to 2009	2009
Albert / Wyndam	6	1
Queen / Wakefield	6	2
Pitt / Karangahape	6	2
Queen / Shortland	6	2

It is interesting to note in the following table how the age distribution of pedestrian crashes has changed in the city over time.

Between 1980 and 1984 forty-seven percent of crashes involved pedestrians aged 19 or less. In the last five years 32 percent of injured pedestrians are in this age range.

A compounding factor here is the national drop in the number of young people walking to school.

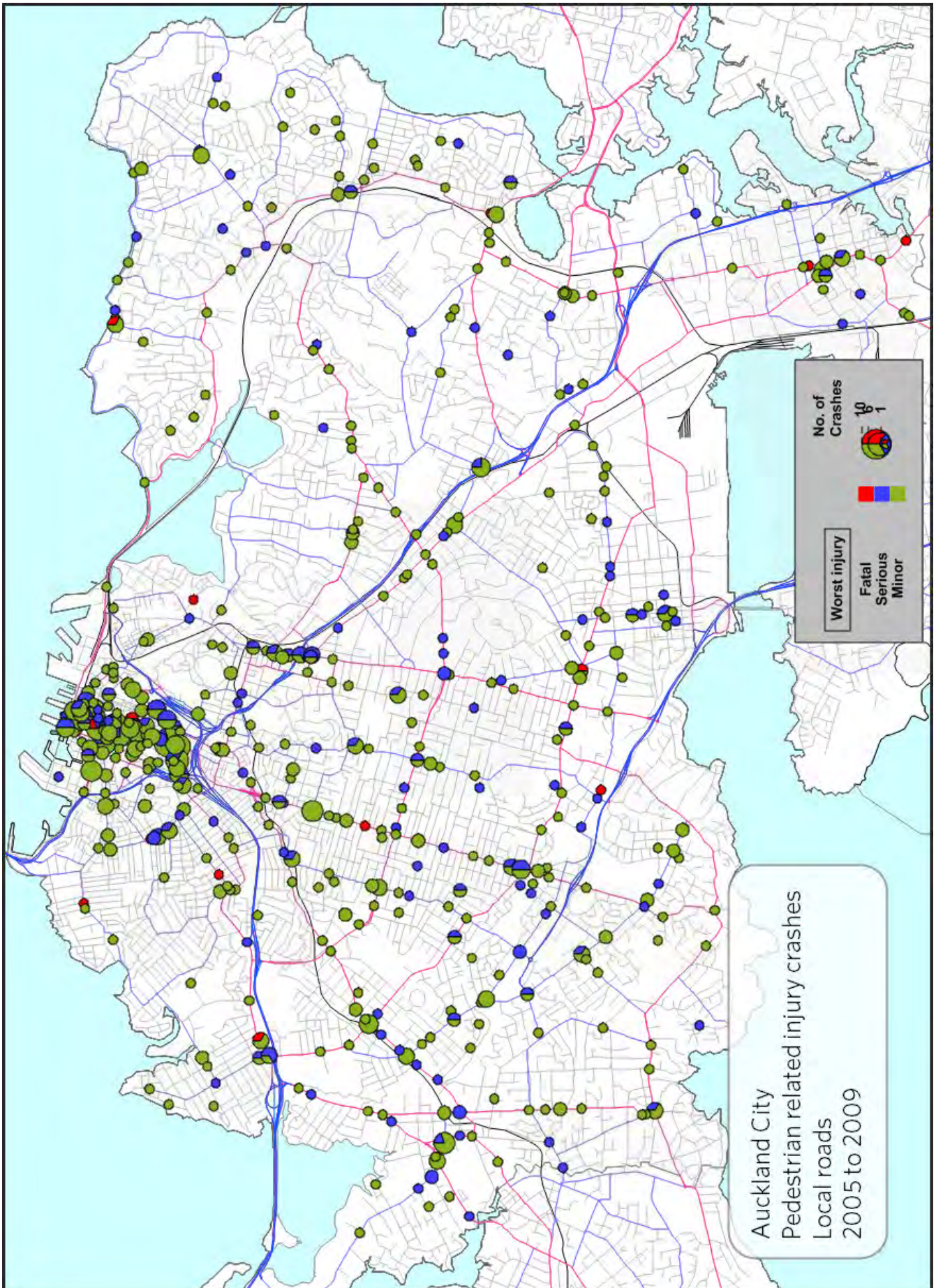
The Ministry of Transport's (MoT's) Household Travel survey shows that nationally just twenty years ago 42 percent of children walked to school. Three years ago this had dropped to 25 percent.

Age group of pedestrian casualties 2005 to 2009 and 25 years ago—as a percentage of the total pedestrians injured

Age group	2005 to 2009	1980 to 1984
0 to 4	2	8
5 to 9	9	15
10 to 14	10	12
15 to 19	11	12
20 to 24	13	9
25 to 29	9	6
30 to 34	6	4
35 to 39	6	3
40 to 44	6	4
45 to 49	4	3
50 to 54	5	4
55 to 59	3	5
60 to 64	3	4
65 to 69	4	3
70 to 74	4	4
75 and over	6	5

Further information about the 710 injury pedestrian crashes on **local** roads in Auckland City 2005 to 2009:

- 49 percent at intersections
- 30 percent at night
- Worst day of week Friday, best Sunday
- Pedestrians themselves contributed wholly (or in part) to 70 percent of the crashes
- In addition there were 6 pedestrian related crashes on **State Highways** (mainly motorways) in the City
- 87 of the pedestrians were intoxicated



Motorcyclists

In Auckland City 20 percent of all fatal and serious crashes involve a motorcyclist or moped.

Motorcyclist and moped injuries					
	2005	2006	2007	2008	2009
Fatal	1	1	0	2	2
Serious	18	30	22	17	33
Minor	69	71	61	96	110
Total	88	102	83	115	145

In the last 20 years there has been a significant shift in the number of crashes and age distribution of motorcyclists being injured in Auckland City as illustrated in the table adjacent.

The table below shows a national analysis of the age of at fault riders in crashes cross referenced with distance ridden data from the MoT's Household travel survey.

It shows that young riders are highly over-represented.

The under 24 age group rides 7.8 percent of the kilometres but represents 34 percent of at fault riders. This certainly reinforces the "young driver" thrust in Safer Journeys. Unfortunately the "distance driven" sample at a local body level is too small to make this comparison in just Auckland City.

All NZ Data - Motorcycle riders		
Age group	Percentage of total distance driven	Percentage of at fault riders in injury crashes
10-14	0.2	1.8
15-19	2.5	18.5
20-24	5.1	14.1
25-29	12.4	8.9
30-34	4.2	9.5
35-39	30.1	9.6
40-44	10.0	10.2
45-49	17.8	10.0
50-54	3.6	7.7
55-59	3.4	4.8
60-64	7.8	2.5
65-69	2.7	1.4
70-74	0.0	0.5
75+	0.3	0.6

Percentage of motorcycle and moped casualties between 2005 and 2009 and 25 years ago in Auckland City (by age group)

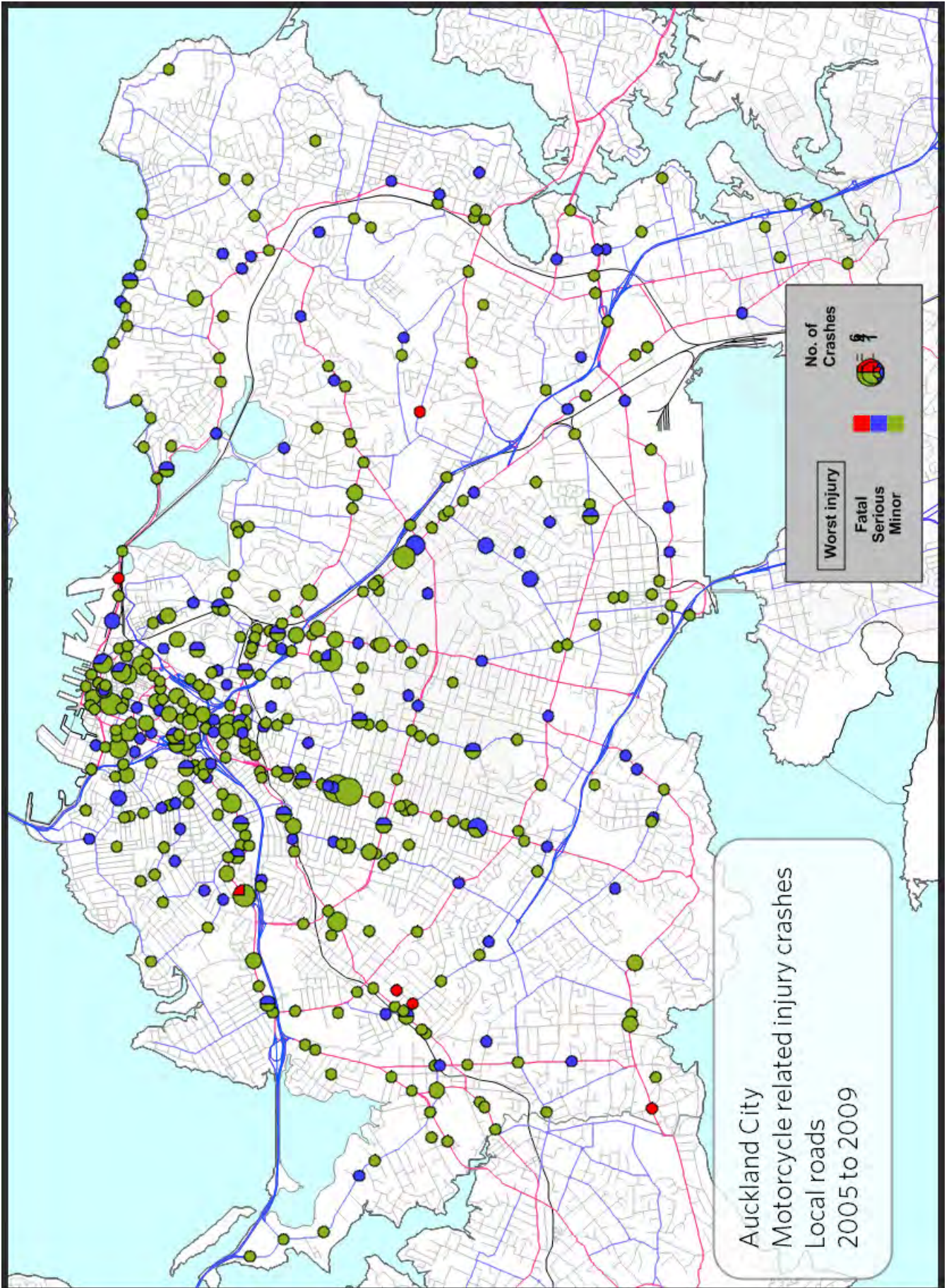
Age group	2005 to 2009 (sample size 529 crashes)	1980 to 1984 (sample size 1516 crashes)
10 to 14	1	0
15 to 19	9	44
20 to 24	23	35
25 to 29	17	12
30 to 34	15	4
35 to 39	10	2
40 to 44	9	1
45 to 49	9	1
50 to 54	3	1
55 to 59	2	1
60 to 64	2	0
65 to 69	1	0
70 to 74	0	0
75+	0	0

Further information about the 529 injury motorcyclist and moped crashes on **local** roads in Auckland City 2005 to 2009:

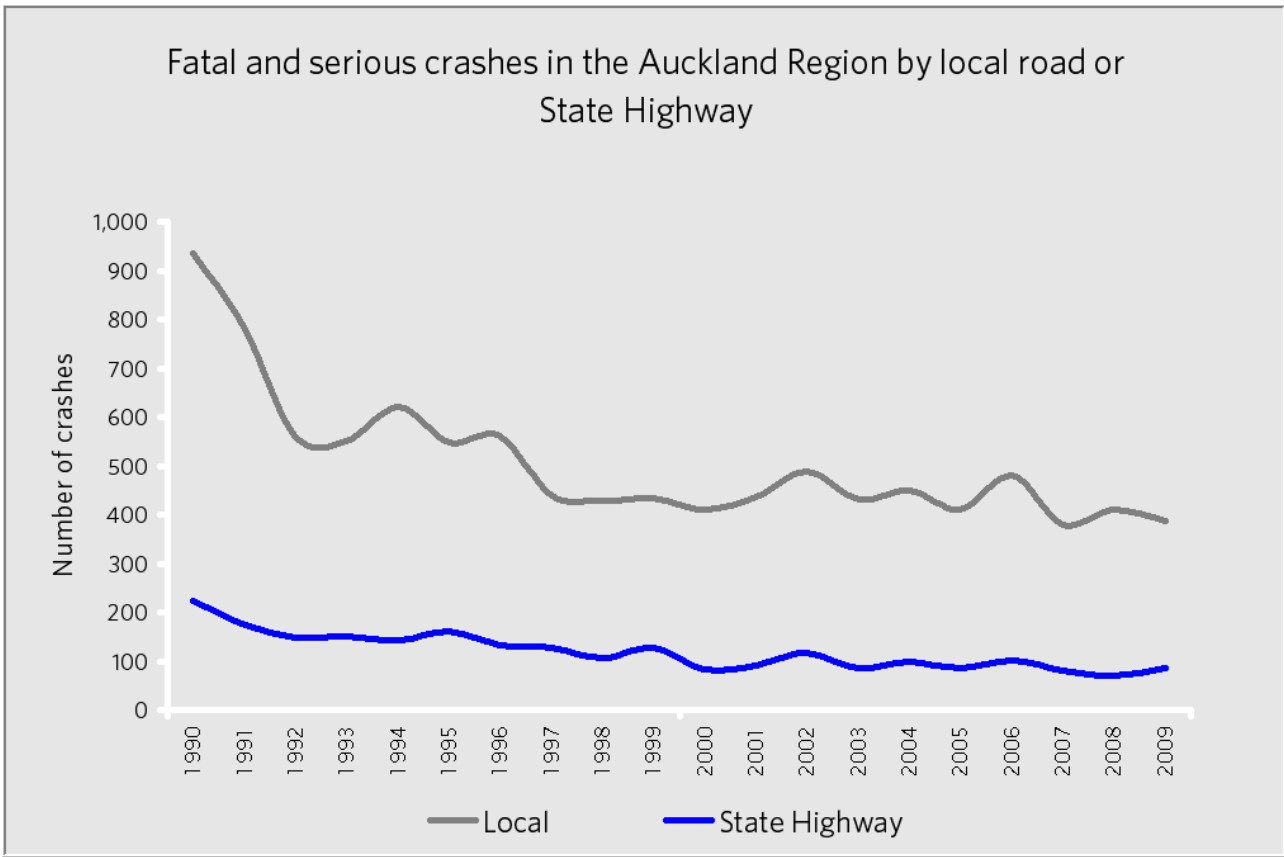
- 6 motorcyclists died, 120 received serious injuries and 407 minor injuries
- 5 percent involved "speed too fast for the conditions"
- From a total of 588 at fault (or part fault) drivers, 180 of these were motorcyclists
- 24 percent at night
- Worst month March, best December
- Worst day Wednesday, best Sunday

Further information about the 99 injury motorcyclist and moped crashes on **State Highways** in Auckland City 2005 to 2009:

- 1 motorcyclist died, 17 received serious injuries and 82 minor injuries
- 5 percent involved "speed too fast for the conditions"
- 22 percent at night
- Worst month March, best August and September (equal)
- Worst day Friday, best Monday



Looking back—the last two decades



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