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VEHICLE SAFETY RATINGS ESTIMATED FROM POLICE REPORTED CRASH DATA: 2008 UPDATE

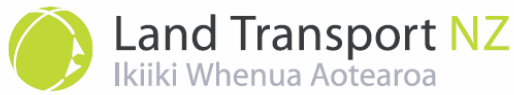
AUSTRALIAN AND NEW ZEALAND CRASHES DURING 1987-2006

by

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& Max Cameron

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Abstract:

This study describes the calculation of updated vehicle safety ratings that measure the relative safety of vehicles in preventing severe injury to people involved in crashes. Three different aspects of secondary safety are examined: crashworthiness which focuses on drivers of the rated vehicle, aggressivity which focuses on drivers of other vehicles and unprotected road users such as pedestrians, cyclists and motorcyclists colliding with the rated vehicle and total secondary safety which examines the combined crashworthiness and aggressivity performance of the rated vehicle. Updated ratings for 1982-2006 model vehicles were estimated based on data on crashes in Victoria and New South Wales during 1987-2006, in Queensland, Western Australia and New Zealand during 1991-2006 and in South Australia during 1995-2006. Each rating is measured as a combination of injury severity (the risk of death or serious injury given an injury was sustained) and injury risk (the risk of injury given crash involvement). The ratings were adjusted for the sex and age of the person whose injury outcome was being measured, speed limit at the crash location, number of vehicles, crash configuration and type or road user involved where relevant, the jurisdiction in which the crash occurred and the year in which the crash occurred. These factors were strongly related to injury risk and/or severity. The ratings estimate the risk of being killed or admitted to hospital when involved in a crash, to a degree of accuracy represented by the confidence limits of the rating in each case.

Crashworthiness estimates and their associated confidence limits were obtained for 406 vehicle models classified into 10 market groups with 210 models of vehicle identified as having superior or inferior crashworthiness characteristics compared with the average vehicle. Aggressivity rating estimates and their associated confidence limits were obtained for 374 vehicle models and were sufficiently sensitive that they were able to identify 145 models of vehicle with superior or inferior aggressivity characteristics compared with the average vehicle. Total secondary safety index estimates and their associated confidence limits were obtained for 456 vehicle models classified into 10 market groups and were sufficiently sensitive that they were able to identify 181 models of vehicle that have superior or inferior total secondary safety characteristics compared with the average vehicle.

The relationship between vehicle crashworthiness and the year of manufacture of Australian passenger and light commercial vehicles manufactured from 1964 to 2006 was also investigated. Trends were examined by year of manufacture both for the fleet as a whole and by market group for vehicles manufactured from 1982 to 2006.

The results of this report are based on a number of assumptions and warrant a number of qualifications that should be noted.

Key Words: (IRRD except when marked*)

Injury, Vehicle Occupant, Collision, Passenger Car Unit, Passive Safety System, Statistics

Disclaimer:

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EXECUTIVE SUMMARY

This report describes the development of further updated vehicle safety ratings for 1982-2006 model vehicles. The ratings produced cover vehicle crashworthiness, aggressivity and total safety. Crashworthiness ratings measure the relative safety of vehicles in preventing severe injury to their own drivers in crashes whilst aggressivity ratings measure the serious injury risk vehicles pose to other road users with which they collide. The aggressivity rating measure is based on collisions between the vehicle being rated and both other vehicles and unprotected road users including pedestrians, bicyclists and motorcyclists. The total secondary safety index measure integrates into one measure the combined crashworthiness and aggressivity performance of a vehicle in a way most representative of the crash population involving the vehicle fleet being rated. It considers relative injury outcomes in a mix of crashes involving light passenger vehicles including single and multi vehicle crashes, crashes with heavy vehicle and crashes involving unprotected road users. It was first developed in Newstead et al (2007a) to represent the total secondary safety performance of the vehicle across the full range of collision partners and crash types.

All three measures of vehicle secondary safety performance are estimated from data on real crashes reported to police. The update is based on crash data from Victoria and New South Wales during 1987-2006, from Queensland, Western Australia and New Zealand during 1991-2006 and from South Australia during 1995-2006. The rating of vehicle crashworthiness through analysis of real crash data, as carried out here, and through crash tests carried out by consumer groups such as the Australian New Car Assessment Program is aimed at informing consumers about relative vehicle safety performances as well as encouraging manufacturers to improve vehicle safety.

Crashworthiness ratings were measured by a combination of injury severity (of injured drivers) and injury risk (of drivers involved in crashes). Crashworthiness injury severity was based on 322,242 drivers injured in crashes in Victoria during 1987-2006, in New South Wales during 1987-1998, in South Australia during 1995-2006 and in Queensland, Western Australia and New Zealand during 1991-2006. Crashworthiness injury risk was based on 1,716,373 drivers involved in crashes in New South Wales during 1987-2006, in South Australia during 1995-2006 and Western Australia and Queensland during 1991-2006 where a vehicle was towed away or someone was injured. The crashworthiness ratings were adjusted for the driver sex and age, the speed limit at the crash location, the year in which the crash occurred, the jurisdiction in which the crash occurred and the number of vehicles involved in the crash. These factors were found to be strongly associated with injury risk and injury severity. Adjustments were made with the aim of measuring the effects of vehicle factors alone, uncontaminated by other non-vehicle related factors available in the data that affected crash severity and injury susceptibility.

The crashworthiness ratings estimate the risk of a driver of the focus vehicle being killed or admitted to hospital when involved in a tow-away crash, to a degree of accuracy represented by the confidence limits of the rating in each case. Crashworthiness ratings and their associated confidence limits were calculated for 406 individual vehicle models manufactured between the years 1982-2006. The estimates and their associated confidence limits were sufficiently sensitive that they were able to identify 210 models of passenger cars, four wheel drive vehicles, passenger vans and light commercial vehicles that have superior or inferior crashworthiness characteristics compared with the average

crashworthiness across all vehicles in the data. Vehicles were classified into one of 10 market groups for presentation of the ratings with average crashworthiness of vehicles in each market group estimated.

The measure of aggressivity was calculated for 374 models of Australian and New Zealand passenger vehicles manufactured between the years 1982-2006. The aggressivity ratings estimate the risk of a vehicle driver or unprotected road user impacting with the focus vehicle model being killed or admitted to hospital when involved in a crash. The estimates and their associated confidence limits were sufficiently sensitive that they were able to identify 145 vehicle models that have superior or inferior aggressivity characteristics compared with the average aggressivity across all vehicle models in the data. Average aggressivity for vehicles in each of the 10 defined market groups was also estimated. Estimated vehicle aggressivity towards drivers of other vehicles or unprotected road users was found to have little or no relationship with ratings of vehicle crashworthiness, demonstrating the independence of the two complementary measures.

Total secondary safety injury severity was based on 546,160 road users injured in crashes in Victoria during 1987-2006, in New South Wales during 1987-1998 and in Queensland, Western Australia and New Zealand during 1991-2006. Injury risk was based on 2,562,612 road users involved in crashes in New South Wales during 1987-2006, South Australia during 1995-2006 and Western Australia and Queensland during 1991-2006 where a vehicle was towed away.

The total secondary safety index measures the average risk of death or serious injury to light passenger vehicle drivers and unprotected road users (pedestrians, cyclists and motorcyclists) when involved in a crash with a light passenger vehicle to a degree of accuracy represented by the confidence limits of the index in each case. The index was measured by a combination of injury severity (the risk of death or serious injury given an injury was sustained) and injury risk (the risk of injury given crash involvement). As far as possible, the index reflects the total secondary safety performance related to vehicle design alone by controlling for a range of non-vehicle related factors known to affect injury outcome.

The index was adjusted for the sex and age of the person whose injury outcome was being measured, speed limit at the crash location, number of vehicles involved, the jurisdiction in which the crash occurred and the year in which the crash occurred. These factors were strongly related to injury risk and/or severity. In addition to the above factors this rating was also adjusted for the type of crash and road user combination as this factor was strongly related to injury risk and/or severity. Total secondary safety index estimates and their associated confidence limits were obtained for 456 vehicle models classified into 10 market groups. They were sufficiently sensitive that they were able to identify 181 models of passenger cars, four-wheel drive vehicles, passenger vans and light commercial vehicles that have superior or inferior total secondary safety characteristics compared with the average vehicle.

Estimated total secondary safety was found to have a stronger relationship with ratings of vehicle crashworthiness than with vehicle aggressivity. This reflects that crashworthiness is relevant to the injury outcome of road users in a wider range of crash types than are covered by the aggressivity ratings. The index serves as a valuable summary of overall secondary

safety of light passenger vehicles both for consumer information as well as for regulators and vehicle safety advocates in identifying and promoting vehicle safety characteristics that optimise overall secondary safety characteristics.

For each type of rating estimated, the expanded data set has been able to produce more up-to-date and reliable estimates of the of individual car models than those published previously.

The crashworthiness of passenger vehicles in the Australian vehicle fleet (cars, station wagons, four wheel drives and vans), has been estimated by year of manufacture for the years 1964 to 2006. This study further updates the original one by Cameron et al (1994a) for years of manufacture 1964 to 1992. Updated trends in Australian crashworthiness by year of manufacture show similar patterns as previously obtained with the greatest gains over the years 1970 to 1979 in which a number of new Australian Design Rules aimed at occupant protection took effect. Further significant gains in crashworthiness have also been observed over the years 1986 to 2006, with notable steady gains from 1985 to 1995 and since 2000. Trends in crashworthiness by year of vehicle manufacture from 1982 to 2006 for each of the 10 vehicle market groups were also estimated showing differential improvement in crashworthiness by market group by year of manufacture.

The results and conclusions are based on a number of assumptions and warrant a number of qualifications that should be noted.

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VEHICLE SAFETY RATINGS ESTIMATED FROM POLICE REPORTED CRASH DATA: 2008 UPDATE

AUSTRALIAN AND NEW ZEALAND CRASHES DURING 1987-2006

1. INTRODUCTION

For over 16 years the Monash University Accident Research Centre (MUARC) has been involved in a program of research examining issues relating to vehicle safety in both Australia and New Zealand through the analysis of mass data records on crashes reported to police. Data on which the research to date is based has come from reports compiled by police in various States across Australia and in New Zealand. In Victoria, the police reported crash data has been augmented by data on injury compensation claims resulting from transportation crashes compiled by the Victorian Transport Accident Commission (TAC).

A principal focus of the research program has been to produce vehicle secondary safety ratings for specific makes and models of vehicles and by market group of vehicle. For many years the ratings have focused on two aspects of vehicle safety performance: crashworthiness, being the ability of a vehicle to protect its own occupants in the event of a crash, and aggressivity, the ability of a vehicle to protect other road users with which it collides. More recently, an overall secondary safety ratings measure has been developed called the total secondary safety rating. It measures the combined relative crashworthiness and aggressivity performance of various makes and models of vehicles based on exposure to the mix of major crash types on Australasian roads where vehicle crashworthiness and / or aggressivity are important in determining injury outcomes.

The ratings have been published annually by the agencies supporting the research as a source of consumer information to aid the purchase of safe vehicles. They are marketed as the Used Car Safety Ratings reflecting the fact that ratings can only be produced some time after a vehicle is released for sale once sufficient real world crash experience has been accumulated. It also differentiates these ratings from those derived under the Australia New Car Assessment Program based on crash barrier testing results which are targeted largely at new vehicle buyers.

1.1 Crashworthiness Ratings

Crashworthiness ratings rate the relative safety of vehicles in protecting their own occupants by examining injury outcomes to drivers in real world crashes reported to police. The crashworthiness rating of a vehicle in the ratings system used in this report is a measure of the risk of death or serious injury to a driver of that vehicle when it is involved in a crash. This risk is estimated from large numbers of records of injury to drivers of that vehicle type involved in real crashes on the road. It is measured in two components:

1. Rate of injury for drivers involved in crashes where a vehicle is towed away or someone is injured (injury risk)
2. Rate of serious injury (death or hospital admission) for injured drivers (injury severity).

Multiplying these two rates together forms the crashworthiness rating. This is a measure of the risk of serious injury for drivers involved in crashes where a vehicle is towed away or someone is injured. Measuring crashworthiness as a product of two components, reflecting risk and severity of injury respectively, was first developed by Folksam Insurance, which publishes the well-known Swedish ratings (Gustafsson et al 1989) and were first published in Australia in Cameron et al (1994a,b) These ratings use an analysis method that was developed to maximise the reliability and sensitivity of the results from the available data whilst adjusting for the effects on injury outcome of non-vehicle factors that differ between vehicles. In addition to the speed

zone and driver sex, the method of analysis adjusts for the effects of driver age and the number of vehicles involved, producing results with all those factors taken into account.

The ratings have been updated at regular intervals (Newstead et al 1996, Newstead et al 1997, Newstead et al 1998, Newstead et al 1999, Newstead et al 2000, Newstead et al 2003a, Newstead et al 2004b, Newstead et al 2005b, Newstead et al 2006, Newstead et al 2007a, 2007b). The most recent prior update covered vehicles manufactured over the period 1982-2005 and crashing during 1987-2005. Progressive enhancement of the methods of statistical analysis has been incorporated through the ratings updates. From 1999 the ratings incorporated police-reported crash data from Queensland whereas previously only crash data from New South Wales and Victoria had been used. From 2003 the ratings also added police-reported crash data from Western Australia. From 2004 the ratings included police-reported crash data from New Zealand after a rigorous program of research establishing the comparability of vehicles between the Australian and New Zealand vehicle fleets in terms of their specification and secondary safety performance (Voyce, 2000; Robinson, 2000a,b, Newstead, 2000b, Newstead, 2002, Newstead et al 2003b). From 2007 the ratings also added police-reported crash data from South Australia. The crashworthiness ratings covered individual models of sedans, station wagons, four wheel drives, passenger vans and light commercial vehicles and are given as estimates of risk of severe injury for each model along with 90% and 95% confidence limits on each estimate.

1.2 Aggressivity Ratings

The aggressivity measure used in the Australian vehicle safety rating system estimates the risk of the driver of another car or an unprotected road user (pedestrian, bicyclist or motorcyclist) being killed or seriously injured when involved in a collision with the subject model vehicle. It is representative of the total aggressivity performance of the vehicles being rated across all potential collision partners that are susceptible to injury. Like the crashworthiness measure, it is calculated as the product of two component measures, one measuring injury risk the other measuring injury severity.

Because an estimate of the risk of injury cannot be calculated for unprotected road users since crashes are generally not reported to the police when the unprotected road user is uninjured, the measure of aggressivity injury risk is based only on the injury risk to the drivers of other vehicles (ROU). It is defined as:

Aggressivity Injury Risk = ROU = proportion of other vehicle drivers involved in crashes who were injured

In contrast, complete records of both other drivers and unprotected road users injured in crashes are available in police reported crash data and can be used to examine injury severity outcomes in the aggressivity measure. The aggressivity injury severity measure (SOU) is defined as:

Aggressivity Injury Severity = SOU = proportion of other vehicle drivers or
unprotected road users who were killed or
admitted to hospital.

The aggressivity measure for each subject car model is then calculated as:

Aggressivity to other driver or unprotected road user = AOU = ROU x SOU.

Like the crashworthiness ratings, the aggressivity measure was adjusted for the effects of non-vehicle factors differing between the subject car models which may have affected injury outcome to the driver of the other vehicle. Non-vehicle factors available in the data included:

- speed limit at the crash location
- subject vehicle driver age (younger drivers may be driving at relatively fast speeds not fully represented by the speed limit)
- subject vehicle driver sex (male drivers may be driving at relatively fast speeds or more aggressively)
- other car occupant age (older occupants are more susceptible to injury)
- other car occupant sex (female occupants are more susceptible to injury, but males appear to be associated with relatively high injury severities)
- collision partner type (vehicle, pedestrian, bicyclist or motorcyclist) (injury severity analysis only)

1.3 Total Secondary Safety Index

Past presentations of the crashworthiness and aggressivity ratings for consumer information simply present the two ratings side by side. This leaves the consumer to decide the relative importance of each rating in making a decision on vehicle safety priority in their purchasing decision. From a consumer information perspective, this might seem a good strategy as it allows the consumer to balance the relative priority they give to their own safety versus the safety of other road users on an individual basis. However, it may not be ideal from the perspective of trying to steer the vehicle fleet as a whole in the direction of optimum safety which should be the overarching priority for safety advocates, regulators and, indeed, the community as a whole. If consumers generally based their vehicle choices only on crashworthiness performance and largely ignored aggressivity, sub optimal choices on a community wide safety basis may result. Similar sub-optimal choices may result if only aggressivity were considered. A desire to optimise vehicle secondary safety on a whole of community basis highlights the need for an index which combines the crashworthiness and aggressivity performance of a vehicle into a single index. The total safety index captures the overall secondary safety of the vehicle in the most meaningful way for the environment in which it is driven and hence crash circumstances to which it is exposed.

The international vehicle safety literature shows a paucity of effort in developing such an index. The only group to have given the concept serious consideration are the University of Oulu transport research group in Finland (Huttula et al, 1997). The Finnish group have measures of vehicle aggressivity and crashworthiness similar in concept to those developed by MUARC. From these they have developed a total passive safety index which is essentially the sum of the crashworthiness and aggressivity measures for each vehicle. Deriving the total passive safety index in this way implicitly assumes that crashworthiness and aggressivity have equal weighting in the overall passive safety performance of a vehicle. Whether this is the most appropriate approach is questionable since the relative balance of importance between crashworthiness and aggressivity will depend on the mix of crash circumstances the vehicle is exposed to.

A more detailed approach to the issue of estimating total vehicle passive or secondary safety has been explored in Newstead et al (2004a) and Newstead et al (2004b). This work, based on analysis of Australian crash data, commenced by identifying the four primary crash types in

which light passenger vehicles in were involved and identifying the principal injury outcomes of interest in the crash. The crash types identified were:

1. Crashes between two light passenger vehicles:
2. Single light passenger vehicle crashes.
3. Crashes between a light passenger vehicle and a heavy vehicle (bus, rigid truck or articulated truck).
4. Crashes between a light passenger vehicle and unprotected road user (pedestrian, bicyclist or motorcyclist).

The total secondary safety index defined by Newstead et al (2004b) was calculated by broad market group of vehicle and was a weighted average of four individual crashworthiness or aggressivity based measures. They are:

1. The crashworthiness of the light passenger vehicle in crashes between two light vehicles as a function of its impact partner market group (embodying both the crashworthiness of the focus vehicle market group as well as the aggressivity of the impact partner vehicle market group) – Crash type 1.
2. The crashworthiness of the light passenger vehicle in single vehicle crashes – Crash type 2.
3. The crashworthiness of the light passenger vehicle in crashes with heavy vehicles as a function of the heavy vehicle type – Crash type 3
4. The aggressivity of the light passenger vehicle towards unprotected road users – Crash type 4.

The total secondary safety index was defined as the weighted average of each of the four safety measures with the weighting factors used being the proportionate representation of each of the four crash types. As such, it represented the overall secondary safety performance of a vehicle, classified by market group in this case, in protecting all road users involved in the full range of crashes reflecting the relative incidence of each major crash type.

It is evident from examining the form of the total secondary safety index that the traditional measure of overall vehicle crashworthiness performance is embodied in the safety measures relating to crash types 1, 2, and 3. The traditional aggressivity measure is embodied in the safety measures relating to crash types 1 and 4. Constructing the total secondary safety index in this way is similar in basic principle to the approach used by the Oulu researchers. However it differs in the fact that it gives appropriate weighting to each aspect of a vehicle's secondary safety performance by weighting each component according to its relevance in Australian real world circumstances.

The work of Newstead et al (2004a) and Newstead et al (2004b) was useful in, for the first time, defining an overall secondary safety index for light passenger vehicles relevant to Australian circumstances. It was then able to use the index effectively to quantify the broad overall secondary safety effects of changing the mix of vehicles in the fleet. The index did, however, have some limitations related to the manual construction of the index from its components. First, there had to be sufficient data to estimate each of the component safety measures comprising the index. In the demonstration of the methodology this meant results could only be obtained by

broad market group of vehicle and not for individual makes and models of vehicle. Second, estimates of statistical confidence on the index could not be estimated due to its complex nature. Both these difficulties highlighted the need for development of an integrated total secondary safety index that could be estimated by vehicle make and model with associated estimates of statistical confidence.

Building on the approach to modelling vehicle total secondary safety demonstrated in Newstead et al (2004a) and Newstead et al (2004b), the study of Newstead et al (2007c) developed and applied an integrated single index of total secondary safety for light passenger vehicles in the Australian and New Zealand vehicle fleets. The index measures the average risk of death or serious injury to light passenger vehicle drivers and unprotected road users (pedestrians, cyclists and motorcyclists) when involved in a crash with a light passenger vehicle to a degree of accuracy represented by the confidence limits of the index in each case. It provides an overall summary of the combined crashworthiness and aggressivity performance of a vehicle. The index was measured by a combination of injury severity (the risk of death or serious injury given an injury was sustained) and injury risk (the risk of injury given crash involvement). As far as possible, the index reflects the total secondary safety performance related to vehicle design alone by controlling for a range of non-vehicle related factors known to affect injury outcome. The index was adjusted for the sex and age of the person whose injury outcome was being measured, speed limit at the crash location, number of vehicles involved, the jurisdiction in which the crash occurred and the year in which the crash occurred. These factors were strongly related to injury risk and/or severity. In addition to the above factors this rating was also adjusted for the type of crash and road user combination as this factor was strongly related to injury risk and/or severity.

The index serves as a valuable summary of overall secondary safety of light passenger vehicles both for consumer information as well as for regulators and vehicle safety advocates in identifying and promoting vehicle safety characteristics that optimise overall secondary safety characteristics.

1.4 Trends in Vehicle Safety by Year of Manufacture and Market Group

Another focus of the vehicle crashworthiness ratings study has been to track historical improvements in the average crashworthiness of the Australian vehicle fleet since 1964. In 1994, the Royal Automobile Club of Victoria (RACV) commissioned a study to investigate the effects of the year of manufacture of vehicles (vehicle year) on their road safety (Cameron et al 1994c). This project focused on investigating the relationship between crashworthiness and vehicle year of manufacture for the years 1964 to 1992. The aim of the original study of Cameron et al (1994c) was, to the extent possible, to measure the crashworthiness of vehicles of different years of manufacture. The method employed was designed to eliminate the influence of other key factors affecting the risk of injury that might also be associated with vehicle year (e.g. driver age and sex, use on high speed roads, etc.).

The original study of Cameron et al (1994c) showed that the crashworthiness of passenger vehicles in Australia has improved over the years of manufacture 1964 to 1992 with rapid improvement over the years from about 1970 to 1979. Drivers of vehicles manufactured during 1970 to 1979 could be expected to have benefited from the implementation of a number of Australian Design Rules (ADRs) for motor vehicle safety which previous research has shown to be effective in providing occupant protection. The study has been updated with each vehicle

crashworthiness ratings update. The most recent analysis included vehicles with years of manufacture from 1964 to 2005 (Newstead et al 2007a, 2007b). Similar analyses have been undertaken for the New Zealand vehicle fleet by Newstead and Watson (2005a) showing quite different trends in crashworthiness by year of manufacture to that observed in the Australian fleet reflecting the different regulatory frameworks across the two countries and the significant used vehicle import program in operation in New Zealand.

Extending the basic analysis, Newstead and Cameron (2001) examined trends in vehicle crashworthiness by year of manufacture from 1982 to 1998 within specific vehicle market groups. Vehicles were grouped into 4 market categories: small cars (<1100kg), medium cars (1100-1400kg), large cars (>1400kg) and four wheel drive vehicles (Sports Utility Vehicles). Results of analysis found statistically significant differences in the trends in crashworthiness by year of manufacture between different market groups in both the injury risk and injury severity components of the crashworthiness measure. This analysis was most recently updated in Newstead et al (2007a, 2007b) for vehicles manufactured over the years 1982-2005 and grouped into 10 market classifications.

Using similar methods to those used for investigating trends in crashworthiness by year of manufacture, Newstead et al (2004a) has investigated trends in aggressivity by year of vehicle manufacture for the Australian fleet as a whole as well as by 8 broad market group classifications. Although differential trends in aggressivity were found between the various market groups of vehicle analysed, for the Australian vehicle fleet as a whole there has been no significant trend to improving or worsening aggressivity over the years of manufacture studied from 1964 to 2000.

1.5 Project Aims

The aim of this project was to update the previously published crashworthiness and aggressivity ratings of Newstead et al (2007a, 2007b) including additional crash data from the year 2006 for Victoria, NSW, Queensland, South Australia, Western Australia and New Zealand and to update the previously published total safety rating of Newstead et al (2007c) including additional crash data from the years 2005 and 2006 for Victoria, NSW, Queensland, South Australia, Western Australia and New Zealand. The updated ratings aimed to cover the drivers of light passenger vehicles including cars, station wagons, four wheel drive vehicles, passenger vans, and light commercial vehicles manufactured during 1982-2006 and crashing in Victoria or NSW during 1987-2006 or South Australia during 1995-2006 or Queensland, Western Australia and New Zealand during 1991-2006.

This project also aimed to update the estimates of crashworthiness by vehicle year of manufacture for the Australian vehicle fleet to include vehicles manufactured over the years 1964 to 2006. For vehicle models from 1982 to 2006 that could be classified into a market grouping, the project also aimed to further investigate trends in crashworthiness of the Australian vehicle fleet by year of vehicle manufacture within each specific market group.

The study also aimed to further assess the relationships between vehicle crashworthiness and both the year of manufacture for all vehicles and the year of first registration for used vehicle imports in New Zealand. The study focused on light passenger vehicles manufactured from 1964 to 2006 and crashing in New Zealand during 1991 to 2006. The results are published separately in a supplement to this report.

2. CRASH DATA

Data from Victoria, New South Wales, Queensland, South Australia, Western Australia and New Zealand used to produce the crashworthiness ratings of Newstead et al (2007) covering vehicles manufactured over the period 1982-2005 and crashing during the years 1987-2005 was again used here. In addition, data for 2006 from each of the five previously included Australian states and New Zealand was obtained and integrated bringing the total period of crash data covered to 1987-2006. Subsets of these data were taken in order to estimate the aggressivity measures. Similarly, data from Victoria, New South Wales, Queensland, South Australia and Western Australia used to produce the crashworthiness by year of manufacture estimates of Newstead et al (2007) covering vehicles manufactured over the period 1964-2005 and crashing during the years 1987-2005 was again used here. As for the crashworthiness ratings, data from 2006 from these five Australian states were also integrated for this analysis. The methods of selecting appropriate cases from each data source will be detailed here.

2.1 Victorian Crashes

Transport Accident Commission (TAC) injury claims from all types of road users who were involved in crashes in the period 1987 to 1998 had been merged with Police crash reports for the previous crashworthiness ratings. The Police reports were for all persons involved in crashes regardless of the Police officer recording the person as injured or uninjured. This procedure was followed because it was possible for an injury claim to be made in circumstances where injury was not apparent at the time of the crash. Crashes are reported to the Police in Victoria if a person is killed or injured, if property is damaged but names and addresses are not exchanged, or if a possible breach of the Road Traffic Regulations has occurred (Green 1990). The levels of matching of TAC claims with persons recorded on Police reports for each year during 1987-1998 achieved by Newstead et al (2003a) are shown in Table 1. The methods of matching for the data are detailed in Cameron et al (1994b).

Due to a breakdown in the matching process from 1999 subsequent updates of the ratings have used police crash data unmatched with TAC claims, although matched data prior to 1999 was still used. Any inconsistencies in injury severity coding introduced by changing from matched to unmatched data were controlled for in the analysis methodology through compensating for year of crash differences.

Table 1: *TAC claims for injury compensation from crashes during 1987-1998*

Year	TAC claims (all types of injured road users)	TAC claims matched with Police reports	Match rate (%)
1987	30,892	17,509	56.7
1988	28,427	16,672	58.6
1989	25,399	17,494	66.3
1990	19,633	13,886	70.7
1991	19,538	12,774	65.4
1992	19,251	13,118	68.1
1993	18,590	12,618	67.8
1994	19,341	11,927	61.6
1995	20,189	12,452	61.7
1996	19,954	14,034	70.3
1997	18,754	13,036	69.5
1998	18,561	12,395	66.8

Changes to the police data collection system in Victoria during 2005 meant that only data to about September 2005 was available for the most recent update of Newstead et al (2007a). In this update, complete 2005 crash data and 2006 crash data complete to about the end of September was available. Unmatched Victorian crash data for 2005 represented 11,793 injured drivers of 1982-2005 model vehicles involved in a crash in Victoria. Unmatched Victorian crash data for 2006 represented 8,547 injured drivers of 1982-2006 model vehicles involved in a crash in Victoria. These records were combined with the merged files of TAC claims with Police reports for 1987-1998 and police reported data only from 1999-2004, which represented 102,559 injured drivers of 1982-2004 model vehicles crashing during 1987-2004. The resulting file covered 120,780 injured drivers of 1982-2006 model cars. The information on these drivers was combined with data on drivers injured in the other four jurisdictions (see Section 2.6) to produce the updated crashworthiness ratings. For the study of crashworthiness by year of vehicle manufacture the merged TAC claims for injury during 1987-98 and police crash records during 1999-2006 covered 168,380 injured drivers of cars, station wagons or taxis manufactured over the years 1964-2006.

Calculation of aggressivity ratings required selecting vehicles involved in two car crashes followed by matching of the vehicle and occupant injury details for the two cars involved in the crash. For those vehicles manufactured over the period 1982 to 2006 injury details for the driver of the other vehicle in the crash were matched by returning to the full Victorian Police reported crash data files for 1987-2006. The data matching process identified 75,313 vehicles manufactured between 1982 and 2006 that had been involved in a crash with one other vehicle where the other vehicle had no restriction on its year of manufacture. Of the drivers of these other vehicles, 41,416 were injured and 33,897 were uninjured. It was not possible to use the uninjured records from the Victorian data, as they are incomplete due to the fact that only crashes involving injury are reliably reported in Victoria. Hence only the 41,416 records of other driver injury were used for calculation of the injury severity component of the vehicle aggressivity ratings. Of the 41,416 injured drivers, 9,397 were severely injured.

Collisions between a single vehicle and an unprotected road user where the vehicles were restricted to those manufactured between 1982 and 2006 were also identified for calculation of the aggressivity ratings using a variable identifying accident type from records for the years 1987 to 2006. Vehicles were matched with the unprotected road user casualty records to obtain the unprotected road user injury level. For the period 1987 to 2006, 16,466 unprotected road users were matched with vehicle records with an identified make and model and manufactured between 1982 and 2006. Of these 16,466 unprotected road users, 16,301 were injured, 6,655 seriously.

2.2 New South Wales Crashes

The Roads and Traffic Authority (RTA) in New South Wales supplied files covering 1,194,339 light passenger vehicles manufactured from 1982 to 2006 involved in Police reported crashes during 1987-2006 that resulted in death or injury or a vehicle being towed away. Model and year of manufacture have been added to each vehicle after matching with the NSW vehicle register via registration number and vehicle make. This was achieved using a procedure developed by the NRMA. The total crash files covered four wheel drive vehicles, passenger vans, and light commercial vehicles as well as cars and station wagons of all years of manufacture crashing in 1987 to 2006. The method of assembly of this data is given in Cameron et al (1994b).

NSW crash data files from 1987 to 1998 had injury severity of people involved in crashes coded using a four level scale. Levels used were: fatality, hospital admission, other injury and not injured. From 1998 onwards, the RTA identified inaccuracies by the Police in reporting injury severity that could not be rectified. In response, the RTA changed the injury severity coding in the NSW crash data to give only three levels: fatality; injury; and not injured. For the purpose of computing crashworthiness ratings, this meant the NSW data for 1999-2006 could not be used to estimate the injury severity measure in the same manner as previous rating updates.

Preparation of the NSW data for final analysis involved merging the files with vehicle information, including driver age and gender, with files supplied by NSW RTA covering details of the person casualties (killed and injured persons) and the reported crashes for the same years. Each vehicle/driver matched uniquely with the corresponding crash information, but only injured drivers could match with persons in the casualty files. A driver who did not match was considered to be uninjured. Of the 1,194,339 drivers involved in tow-away crashes, 200,221 were injured. Of the injured drivers, 72,678 were injured in crashes from 1987 to 1998 and had a valid injury severity level coded (serious or other injury).

Of the 1,194,339 1982-2006 model year vehicles involved in crashes in NSW, 749,031 were coded as being involved in crashes with one other traffic unit (i.e. the crash involved a total of two traffic units). In order to compare occupant injury levels in crashes involving two vehicles, it was necessary to match the crash and occupant injury information for each of the two vehicles involved in the crash.

The data used for calculation of the crashworthiness ratings covered only vehicles manufactured from 1982 to 2006. Consequently, initial matching of only the crashworthiness data to determine pairs of vehicles involved in a crash identified both the vehicles in the crash when both vehicles were manufactured from 1982 to 2006. A second matching stage was then required to identify the details of drivers of vehicles manufactured before 1982 that had collided with the unmatched 1982-2006 model year vehicles in the crashworthiness file. This required retrieval of the

remaining crash records in the 1987-2006 NSW crash files not used for crashworthiness ratings in order to match vehicles manufactured prior to 1982. The two-stage data matching process identified 342,726 matched records of vehicles manufactured between 1982 and 2006 that had been involved in a crash with one other vehicle where the other vehicle had no restriction on its year of manufacture. Of the drivers of these other vehicles, 48,525 were injured. Of the injured drivers, 19,922 were injured in crashes from 1987 to 1998 and had a valid injury severity level coded (serious or other injury).

Calculation of the aggressivity rating also required the identification of crashes between a single light vehicle and an unprotected road user where the vehicles were restricted to those manufactured between 1982 and 2006. The required crashes were identified using a variable identifying accident type. Casualty records for the crash years 1987 to 2006 were used to identify unprotected road users injured in a collision with one vehicle. The vehicles were then matched with the unprotected road user casualty records to obtain the pedestrian, bicyclist or motorcyclist injury level. For the period 1987 to 2006, 49,452 unprotected road users were matched with vehicle records. Of these 49,452 unprotected road users, 26,869 were injured in crashes from 1987 to 1998 and had a valid injury severity level coded. Of these, 8,486 were seriously injured.

For the study of crashworthiness by vehicle year of manufacture, the NSW data represented 1,458,897 drivers of cars, station wagons or taxis manufactured from 1964 to 2006 who were involved in tow-away crashes. Of these drivers, 241,080 were injured, 119,503 of these during 1987-1998 and with a valid injury severity code.

The presence of uninjured drivers in the merged data file meant that it was suitable for measuring the risk of driver injury (in cars sufficiently damaged to require towing). This contrasted with the Victorian and New Zealand data files, which could not be used to measure injury risk directly because not all uninjured drivers were included.

2.3 Queensland Crashes

Queensland Transport supplied files covering 352,638 light passenger vehicles involved in Police reported crashes during 1991-2006 that resulted in death or injury or a vehicle being towed away. The files supplied covered years of vehicle manufacture from 1982-2006 including models of four wheel drive vehicles, passenger vans, and light commercial vehicles as well as cars and station wagons for which a model could be identified.

The vehicle files, which also contained links to separate files with driver age and sex, were merged with files supplied by Queensland Transport covering details of the person casualties (killed and injured persons) and the reported crashes for the same years. Each vehicle/driver matched uniquely with the corresponding crash information, but only injured drivers could match with persons in the casualty files. As for NSW, a driver who did not match was considered to be uninjured. Out of the 352,638 drivers involved in tow-away crashes, 90,877 were injured.

Of the 352,638 vehicles reported as crashed in Queensland and used in estimation of crashworthiness ratings, 235,174 were coded as being involved in crashes with one other traffic unit (i.e. the crash involved a total of two traffic units). In order to compare occupant injury levels between two vehicles involved in a crash, it was necessary to match the crash and

occupant injury information for each of the two vehicles involved in the crash in the same manner as for NSW. Using the same two stage data matching process as used for NSW and described above, the process identified 118,118 vehicles manufactured between 1982 and 2006 that had been involved in a crash with one other vehicle where the other vehicle had no restriction on its year of manufacture. Of the drivers of these other vehicles, 30,992 were injured, 6,931 seriously. These records were used for calculation of vehicle aggressivity ratings toward drivers of other vehicles.

Records on unprotected road users involved in a crash with one light vehicle unit were retrieved and identified using variables classifying unit type and number of units in the crash. Single vehicle collisions were identified using a variable identifying unit type and number of vehicles in the crash. These vehicles were then matched with the unprotected road user casualty records to obtain the injury level. A total of 18,398 unprotected road users were matched with records on 1982-2006 year passenger vehicles with model details identified. Of these 18,398 unprotected road users, 17,976 were injured, 7,612 seriously.

For the study of crashworthiness by vehicle year of manufacture, the Queensland data represented 312,617 drivers of cars, station wagons or taxis manufactured from 1964 to 2006 who were involved in tow-away crashes. Of these drivers, 81,408 were injured. The number of vehicles crashing in Queensland and available for the year of manufacture analysis was less than expected. This is because a large proportion of the vehicles in the Queensland data from 1997 and 1998 had year of manufacture missing due to difficulties in accessing the vehicle register to determine vehicle details at the time of assembling the data from these two years. Some of the vehicles with missing year of manufacture could, however, be assigned an accurate model code though the VIN decoding process described below despite the missing field.

As with the data from NSW, the presence of uninjured drivers in the data file meant that it was also suitable for measuring the risk of driver injury (in cars sufficiently damaged to require towing).

2.4 Western Australia Crashes

The Western Australian Department of Main Roads maintains a database of all crashes in Western Australia reported to the police. Crashes in Western Australia must be reported to police if anyone involved is killed or injured or the crash results in property damage greater than \$1,000 (Road Safety Council of Western Australia, 2001). This means that, like New South Wales, South Australia and Queensland, both injury and non-injury crashes are reported making the data suitable for inclusion in estimating both the injury risk and injury severity components of the vehicle safety ratings. Although the Western Australia crash data is held as a relational database, Western Australia Department of Main Roads supplied the data in a single flat file with a record for each person involved in a reported crash. Data covered the period 1991 to 2006. The data was re-issued in 2005 for the period 1991 to 2003 due to a change in database structure and variable definitions in 1995 that may have caused some inconsistency in the data over the entire time period. In 2006 the data was re-issued for the period 1991 to 2005 to include registration plates of crashed vehicles. This registration plate detail was used for matching to Western Australian registration data to obtain VIN data for vehicle decoding as described in Section 3.1. The 2006 crash data was again supplied with registration plates of crashed vehicles. In addition matched registration data was provided.

The files supplied covered 878,766 light passenger vehicles manufactured between 1982 and 2006 involved in Police reported crashes during 1991-2006 that resulted in death or injury or a vehicle being towed away. The files supplied covered models of four wheel drive vehicles, passenger vans, and light commercial vehicles as well as cars and station wagons. Out of the 878,766 drivers involved in tow-away crashes, 123,047 were injured.

Of the 878,766 vehicles reported as crashed in WA and used in estimation of crashworthiness ratings, 662,701 were involved in crashes with one other traffic unit. Of the drivers of the matched vehicles, 64,653 were injured. These records were used for calculation of vehicle aggressivity ratings toward drivers of other vehicles.

Records on unprotected road users involved in a crash with one vehicle unit for the period 1991 to 2006 were retrieved and identified using variables classifying unit type and number of units in the crash. 31,017 unprotected road users in the Western Australia crash records were identified as colliding with a 1982-2006 year of manufacture passenger vehicle with model details identified. Of the 21,312 unprotected road users who were injured, 8,137 were severely injured.

For the study of crashworthiness by vehicle year of manufacture, the Western Australia data represented 788,689 drivers of cars, station wagons or taxis manufactured from 1964 to 2006 who were involved in tow-away crashes. Of these drivers, 106,345 were injured.

2.5 South Australia Crashes

The Road Crash Information Unit of the Department of Transport, Energy and Infrastructure maintains a database of all crashes in South Australia reported to the South Australian Police via vehicle crash reports. Crashes included involved at least one person being killed or injured, or a vehicle towed away, or total property damage of \$3,000 or greater. Prior to 01 July 2003 the Department processed 'property damage only' crashes with an aggregated damage value of \$1000 or greater. This change in property damage value occurred as data processing costs and budget reductions had reached an unsustainable level. The decision was made to process all casualty crashes, property damage only greater than \$3000, and tow-away crashes regardless of value. Crash data was provided for the years 1995 to 2005 with three files provided for each year. The three files provided contain detail on the crash, traffic unit and casualties. In addition, data files have been provided with road and Local Government Area details. Like NSW, Queensland and Western Australia, both injury and non-injury crashes are reported making the data suitable for inclusion in estimating both the injury risk and injury severity components of the vehicle safety ratings.

The files supplied covered 576,069 light passenger vehicles manufactured between 1982 and 2006 involved in Police reported crashes during 1995-2006 that resulted in death or injury or a vehicle being towed away. The files supplied covered models of four wheel drive vehicles, passenger vans, and light commercial vehicles as well as cars and station wagons. Out of the 576,069 drivers involved in tow-away crashes, 48,301 were recorded as injured.

Of the 576,069 vehicles reported as crashed in South Australia and used in estimation of crashworthiness ratings, 442,338 were involved in crashes with one other traffic unit. Of the drivers of the matched vehicles, 24,872 were injured. These records were used for calculation of vehicle aggressivity ratings toward drivers of other vehicles.

Records on unprotected road users involved in a crash with one vehicle unit for the period 1995 to 2006 were retrieved and identified using variables classifying unit type and number of units in the crash. 17,320 unprotected road users in the South Australia crash records were identified as colliding with a 1982-2006 year of manufacture passenger vehicle with model details identified. Of the 11,417 unprotected road users who were injured, 2,879 were severely injured.

For the study of crashworthiness by vehicle year of manufacture, the SA data represented 666,948 drivers of cars, station wagons or taxis manufactured from 1964 to 2006 who were involved in tow-away crashes. Of these drivers, 57,788 were injured.

2.6 Crash and Registration Data from New Zealand

Two sources of data from New Zealand were used in the calculation of vehicle crashworthiness and aggressivity ratings. The first data source provided was a crash file showing the registration, vehicle, driver and various crash characteristics for all police reported crashes in New Zealand for the years 1991 to 2006. The second data source was registration data giving details of all crash involved vehicles on the NZ register in each year from 1991 to 2006. Extracts from both data sources supplied for estimation of vehicle safety ratings are described below. The method of assembly of this data is given in Cameron et al (1994b) and in the most recent used car safety ratings of Newstead et al (2007).

After assembling the data, 195,996 light passenger vehicles manufactured between 1982 and 2006 were used in the crashworthiness analysis. Of the drivers of these vehicles 93,669 were not injured or had unknown injury status, whilst the remaining 102,327 were injured to some degree. The injury details of the 102,327 injured drivers were used for estimation of the crashworthiness injury severity measure in conjunction with the Australian data. Records on the uninjured drivers in the New Zealand injury crash data could not be used in the calculation of the injury risk component of the crashworthiness ratings. This was because non-injury crashes in New Zealand, and hence uninjured drivers involved in these crashes, were not suitable for use in the analysis and therefore records on all uninjured drivers in all crashes in New Zealand were incomplete.

A subset of the New Zealand data described above and used for estimation of crashworthiness injury severity formed the basis of the data used in the calculation of the aggressivity ratings. For calculation of aggressivity ratings, vehicles involved in two vehicle crashes were identified. Of the drivers of vehicles colliding with the vehicles identified, 32,740 were injured whilst 26,172 were uninjured. Information on the injury level of the 32,740 injured drivers, 5,284 of whom were seriously injured, was used in conjunction with the Australian data to estimate the injury severity component of the aggressivity ratings.

Records on unprotected road users involved in a crash with one light vehicle unit for the period 1991 to 2006 were retrieved and identified using variables classifying unit type and number of units in the crash. 21,320 unprotected road users were identified as impacting with a 1982-2006 year of manufacture passenger vehicle with model details identified. Of the 21,120 unprotected road users who were injured, 6,087 were severely injured.

2.7 Combined Data from the Six Jurisdictions

When the data on the injured drivers was combined for analysis, it covered 687,672 drivers of 1982-2006 model vehicles who were injured in crashes in Victoria or New South Wales during 1987-2006 or in South Australia during 1995-2006 or in Western Australia, Queensland or New Zealand during 1991-2006. Of these 560,129 had a valid injury severity code, with 127,543 drivers injured in crashes in NSW during 1999-2006 excluded because of missing injury severity. Information on the 560,129 injured drivers was used to assess the injury severity of the injured drivers of the different makes and models when computing crashworthiness ratings. The information on the 3,001,812 drivers involved in tow-away crashes in NSW during 1987-2006 or South Australia during 1995-2006 or Western Australia and Queensland during 1991-2006 was used to assess the injury rate of drivers of the different makes and models for computing crashworthiness ratings.

The combined data on drivers injured in crashes between two light vehicles used for estimation of vehicle aggressivity ratings covered 243,186 drivers of vehicles colliding with 1964-2006 model vehicles. These drivers were injured in two car crashes in Victoria during 1987-2006 or NSW during 1987-1998 or in South Australia during 1995-2006 or in Western Australia, Queensland and New Zealand during 1991-2006. Excluding the 28,585 injured drivers from NSW during 1999-2006 without a valid injury severity code left 214,601 cases for analysis. This information was used to assess the injury severity of the injured drivers colliding with the different makes and models when computing aggressivity ratings. The aggressivity injury risk component was estimated from data including information on the 1,391,832 drivers involved in two-car tow-away crashes in NSW during 1987-2006 or in South Australia during 1995-2006, or Western Australia and Queensland during 1991-2006.

The combined data on unprotected road users used for estimation of aggressivity covered 114,995 injured unprotected road users, of whom 39,856 were seriously injured. These unprotected road users were involved in a collision with a 1982-2006 model vehicle in Victoria or NSW during 1987-2006, or in South Australia during 1995-2006 or in Western Australia or Queensland or New Zealand during 1991-2006.

For the study of crashworthiness by year of vehicle manufacture, the combined data covered 533,424 drivers of vehicles manufactured between 1964 and 2006 who were injured in crashes, 119,252 severely, in Victoria during 1987-2006, NSW during 1987-1998, in South Australia during 1995-2005 and Western Australia and Queensland during 1991-2006. For the assessment of injury risk by year of vehicle manufacture, the combined data covered 3,226,477 drivers involved in tow-away crashes in NSW during 1987-2006 or in South Australia during 1995-2006 or Western Australia and Queensland during 1991-2006.

3. MODELS AND MARKET GROUPS OF VEHICLES

3.1 Vehicle Model Identification

A procedure initially developed by the NRMA based on decoding Vehicle Identification Numbers (VIN) or chassis numbers was extended and used as the primary means to determine the models of light passenger vehicles. The decoding identified some light truck and unusual commercial models that were not considered further. Of the light passenger vehicles manufactured during 1982-2005 around 95% had their model identified by the VIN decoder. Further details of the VIN decoding process are given by Pappas (1993). The VIN decoding procedure was used to identify all vehicle models in the New South Wales and Queensland data and 1989 year of manufacture vehicles onwards in the Victorian data from 1994. For the first time VINs were obtained from the Western Australian vehicle register, managed by the WA Department of Transport. This meant the VIN decoding system used on data from the other four states to identify vehicle model details was used for some of the Western Australia crash data. Because only a recent snapshot of the registration file was obtained registration details of expired registrations was not available. The VIN decoding system was also used to identify make and model details for vehicles sold new in New Zealand with a valid ISO VIN recorded.

For those vehicles in Western Australia without a VIN available, the previous decoding method based on make, model and year of manufacture codes held in the vehicle register and described in Newstead et al (2006) was used. A similar system was used to classify new vehicles in the New Zealand crash data without a valid ISO VIN and for used imported vehicles from Japan. For Victorian vehicles in the pre 1994 data without a VIN, a system of decoding based on vehicle mass and power was used. This is also described in Newstead et al (2006).

South Australia registration data was matched to crash data by the Driver and Vehicle Licensing section of the Department of Transport, Energy and Infrastructure using an extract comprising of the crash date and six character plate detail of the crashed vehicle from the crash data provided to MUARC by the Transport Services Division of the same Department. The vehicles were selected on the basis that the plate was registered as being on the vehicle as at the crash date and the vehicle was registered by the client as at the crash date and was described by the extracted vehicle details. Plate detail in the provided crash data was only six characters whilst the plate numbers on the South Australia register can be longer than six characters, so the numbers were used "as they are" to extract the data. Plates are identified on the South Australia register using plate type and plate number. This resulted in some plate/crash date combinations being extracted more than once. These were excluded from the analysis. Where no match has been possible, the original plate and crash date remain with no extract details populated. Other vehicle details including make, year of manufacture and model which is a free format field on the register and as such, doesn't contain codified or verified data were supplied. This meant the VIN decoding system used on data from the other four states to identify vehicle model details was able to be used for the South Australia crash data.

RACV, NRMA, the Australian Transport Safety Bureau (ATSB, formerly FORS) and VicRoads provided advice on the particular models that had experienced substantial changes in design (and hence potential crashworthiness) and in which years the design was relatively constant. This resulted in certain models being split into ranges of years of manufacture. Where the new model was introduced near the beginning or end of a year (up to two months either way), this process

was relatively straightforward (accepting a small mis-classification in some circumstances). However, when the model changed near the middle of the year, the model for that year was kept separate and potentially treated as a "mixed" model (e.g. the Daihatsu Charade 1987 models). Where exact model decoding was possible from the VIN, without using year of vehicle manufacture, this was used. They also provided advice on vehicle models that could be combined with each other (sometimes only for specific years) because they were essentially the same design or construction but registered as having different manufacturers.

As in previous crashworthiness ratings, models were excluded with fewer than 20 injured drivers and/or fewer than 100 involved drivers appearing in the crash data. The same selection criteria were also used for aggressivity ratings except exclusion was based on the number of road users colliding with the focus vehicle model. These selection criteria were used to ensure stability in fitting the logistic regression models along with suitably small confidence limits on the estimated crashworthiness ratings.

3.2 Pooled Car Models

Vehicle model sharing amongst manufacturers retailing in the Australian market has been relatively common. Because shared models are generally identical, particularly with respect to safety performance, it is possible to pool such models for safety rating, allowing a more precise estimate of the safety of models for which data is pooled rather than considering each separately. Pooled models are indicated in Table 2.

Table 2: *Pooled Models of Cars*

Ford Laser 82-89	with	Mazda 323 / Familia 82-88
Ford Laser 99-03	with	Mazda 323 99-03
Ford Telstar 83-87	with	Mazda 626 / MX6 / Capella 83-86
Ford Telstar 88-91	with	Mazda 626 / MX6 / Capella 88-91
Ford Telstar 92-97	with	Mazda 626 / MX6 / Capella / Cronos 92-97
Ford Corsair 89-92	with	Nissan Pintara / Bluebird 89-92
Holden Commodore VR/VS	with	Toyota Lexcen 93-97
Holden Commodore VN-VP	with	Toyota Lexcen 89-93
Holden Nova 89-92	with	Toyota Corolla 88-92
Holden Nova 93-96	with	Toyota Corolla 93-97
Holden Astra 84-86	with	Nissan Pulsar / Langley 83-86
Holden Astra 88-90	with	Nissan Pulsar / Sentra 87-91
Holden Barina 85-88	with	Suzuki Swift / Cultus 86-88
Holden Barina 89-93	with	Suzuki Swift / Cultus 89-00
Holden Apollo JK/JL 89-92	with	Toyota Camry / Vista 90-93
Holden Apollo JM/JP 93-97	with	Toyota Camry / Sceptor 94-97
Ford Maverick 88-97	with	Nissan Patrol 88-97
Suzuki Scurry 85-87	with	Holden Carry 85-90
Suzuki Samurai / SJ410 / SJ413 82-00	with	Holden Drover 85-87
Nissan XFN Utility	with	Ford Falcon Utility 82-95
Ford Festiva WA 91-93	with	Mazda 121 87-90
Ford Courier 98-02	with	Mazda B-Series 98-02
Ford Courier 03-06	with	Mazda Bravo 03-06
Ford Escape 01-06	with	Mazda Tribute 01-06

It should be noted that some of the vehicle models identified in the Victorian, New South Wales, South Australia, Western Australia, Queensland and New Zealand crash data have optional safety equipment, such as air bags, which could significantly alter the crashworthiness rating of the vehicle model when fitted. It is, however, generally not possible to identify which particular vehicles of a model series do and do not have such optional safety equipment installed using the model decoding procedures described above. Consequently, for those vehicle models with optional safety equipment, the estimated crashworthiness rating represents an average of the safety performance for vehicles with and without the optional safety equipment weighted by the number of each in the crash data.

As the ratings only measure the outcome of drivers involved in a crash, the effect of fitment of active or crash avoidance safety features such as anti-lock braking or electronic stability control systems on crash avoidance was not measured by these ratings. As only drivers were considered, optional or standard safety features for the front or rear seat passengers, such as passenger frontal airbag systems, would also not have affected the ratings.

3.3 Vehicle Market Groups

Previous updates of the vehicle safety ratings have classified vehicle models, for the purpose of publication, into one of a number of market groups. The market groups defined are based heavily on those used by the Federal Chamber of Automotive Industries (FCAI) for reporting Australian vehicle sales as part of their VFACTS publication (see www.fcai.com.au for further details). In the vehicle safety ratings update of Newstead et al (2006) rated vehicles were classified into one of 12 market group classifications, comprising 7 classes of regular passenger car, 3 classes of four wheel drive (4WD) vehicle (also known as Sport Utility Vehicles) and 2 classes of light commercial vehicle. In the most recent update of the vehicle safety ratings (Newstead et al, 2007a,b) the previously defined luxury and sports market groups were distributed across the remaining 5 classes of regular passenger cars, reducing the number of market groups to 10. This classification into 10 market groups was again used in this update. The 10 market groups were defined as follows.

Passenger Cars

Light	Passenger car, hatch, sedan, coupe or convertible 3 or 4 cylinder engine, up to 1,500 cc.
Small	Passenger car, hatch, sedan, wagon, coupe or convertible 4 cylinder engine, 1,501 cc - 1,900 cc.
Medium	Passenger car, hatch, sedan, wagon, coupe or convertible 4 cylinder engine, 1,901 cc upward.
Large	Passenger car, hatch, sedan, wagon, coupe or convertible 6 or 8 cylinder engine.
People Movers	Passenger usage seating capacity > 5 people.

Four Wheel Drive Vehicles (high ground clearance, off road wagon)

4WD Compact	Index rating < 550 (typically less than 1700kg tare mass)
4WD Medium	Index rating 550 - 700 (typically between 1700kg and 2000kg tare mass)
4WD Large	Index rating > 700 (typically greater than 2000kg tare mass)

Light Commercial Vehicles

Van	Blind & window vans.
Utility	Two and four wheel drive, normal control (bonnet), utility, cab chassis and crew-cabs.

The classification of 4WD vehicles is based on an index developed by VFACTS that considers gross vehicle mass, maximum engine torque and the availability of a dual range transmission. The index typically classifies the vehicles roughly by tare mass as indicated on the classifications above. Some departures from the VFACTS classification have been made in presenting the ratings in this study. VFACTS defines a luxury 4WD category based on vehicle price as well as classifying sports cars priced above the luxury car tax threshold as luxury vehicles. Here, the luxury 4WDs have been distributed amongst the 3 defined 4WD categories based on tare mass, as the information for computing the classification index used by VFACTS was not available at the time of the study.

There have also been some departures from the classification principles defined above for certain vehicle models that have a range of engine sizes and hence fall across two different defined categories. These are typically passenger vehicles and include, for example, cars like some models of the Toyota Camry that come fitted with a large 4 cylinder engine in some variants and a 6 cylinder engine in other variants. In these cases, a value judgement has been made for each vehicle model individually based on the other vehicle models with which each typically competes in the market place.

4. ANALYSIS

4.1 Overview of Analysis Methods: Crashworthiness

The crashworthiness rating (C) is a measure of the risk of serious injury (hospitalisation or death) to a driver of a car when it is involved in a crash. It is defined to be the product of two probabilities (Cameron et al, 1992):

- i) the probability that a driver involved in a crash is injured (injury risk), denoted by R; and
- ii) the probability that an injured driver is hospitalised or killed (injury severity), denoted by S.

That is

$$C = R \times S.$$

Folksam Insurance, who publishes the well-known Swedish ratings, first measured crashworthiness in this way (Gustafsson et al, 1989).

In the present report, each of the two components of the crashworthiness rating was obtained by logistic regression modelling techniques (Hosmer & Lemeshow, 1989). Such techniques are able to simultaneously adjust for the effect of a number of factors (such as driver age and sex, number of vehicles involved, etc.) on probabilities such as the injury risk and injury severity whilst estimating the role of vehicle model, market group or year of manufacture in the injury outcome. This method, described fully in Newstead et al (2006), has previously been used to produce the Australian and New Zealand vehicle fleet crashworthiness ratings. For estimation of the crashworthiness ratings, factors in the logistic model included the available non-vehicle factors influencing injury outcome as well as the variable indicating vehicle model, market group or year of manufacture. Newstead et al (2006) details how confidence limits on the regression estimates of injury risk and severity are calculated with these techniques also being used here.

A stepwise procedure was used to identify which non-vehicle factors and their interactions had an important influence on driver injury outcome. Logistic models were obtained separately for injury risk and injury severity because it was likely that the various factors would have different levels of influence on these two probabilities. The non-vehicle factors considered in the analysis for both injury risk and injury severity were

- **sex:** driver sex (male, female)
- **age:** driver age (≤ 25 years; 26-59 years; ≥ 60 years)
- **speedzone:** speed limit at the crash location (≤ 75 km/h; ≥ 80 km/h)
- **nveh:** the number of vehicles involved (one vehicle; > 1 vehicle)
- **state:** jurisdiction of crash (Victoria, NSW, SA, QLD, WA, NZ)
- **year:** year of crash (1987, 1988, ... ,2006)

These variables were chosen for consideration because they were part of the Victorian, Queensland, New South Wales, South Australia, Western Australia and New Zealand databases. Other variables were only available from one source and their inclusion would have drastically reduced the number of cases that could have been included in the analysis. All data were

analysed using the Logistic Regression procedure of the SAS statistical package (SAS, 1989). Some model exclusions were made from the analysis by make and model of vehicle for vehicle model classifications that had no practical interpretation or where there were too few cases for inclusion. This included models in a particular year where there was a change from one series to the next and year of manufacture was necessary to determine the series break (such as Mitsubishi Pajero 1991). It also included some groups of highly aggregated models that would be of no intrinsic interest to consumers using the ratings (such as Jeep Others or Mazda Commercials). After exclusion, the regression analyses were performed on 406 individual car models (or pooled similar models). A list of all vehicle models considered, with those with sufficient data for analysis indicated, is given in Appendix 1.

These techniques were applied to produce estimates of injury risk, injury severity and crashworthiness by vehicle make and model, market group or year of manufacture.

4.2 Overview of the Analysis Methods: Aggressivity

The aggressivity rating estimates the risk of death or admission to hospital to both the drivers of the other cars and to unprotected road users when involved in a collision with the subject model car. Unprotected road users include pedestrians, bicyclists and motorcyclists. Because an estimate of the risk of injury cannot be calculated for unprotected road users as explained above the measure of aggressivity injury risk used was based only on the injury risk to the other driver (ROU). It is defined as:

Aggressivity Injury Risk = ROU = proportion of other vehicle drivers involved in crashes who were injured

In contrast, complete records of both other drivers and unprotected road users injured in crashes are available and can be used to examine injury severity outcomes in the aggressivity measure. The aggressivity injury severity measure (SOU) is defined as:

Aggressivity Injury Severity = SOU = proportion of other vehicle drivers or unprotected road users who were killed or admitted to hospital.

Based on the definition of ROU and SOU above, an aggressivity measure for each subject car model was then calculated as before:

Aggressivity to other driver or unprotected road user = AOU = ROU x SOU.

Consideration was given to taking into account likely differences between the crash circumstances of the subject car models, which may result in a distorted view of its aggressivity only partly related to the characteristics of the subject cars. Factors available in the data to consider such differences were as follows.

- **agefcd** : age of driver of subject car (<=25 years, 26-59 years, >=60 years)
- **sexfcd** : sex of driver of subject car
- **ageoo** : other car driver age (<=25 years, 26-59 years, >=60 years)
- **sexoo** : other car driver sex (male, female)
- **speedzone**: speed limit at the crash location (≤75 km/h; ≥80 km/h)
- **state**: jurisdiction of crash (Victoria, NSW, SA, QLD, WA, NZ)

- **year:** year of crash (1987, 1988, ... ,2006)
- **crash type:** collision partner type (vehicle, pedestrian, bicyclist or motorcyclist) (injury severity only)

Estimation of the aggressivity measure has utilised logistic regression techniques to adjust ROU and SOU separately for any major differences that emerge between models of the subject cars regarding these factors. The adjusted ROU and SOU have been multiplied together for each subject car model to provide the final measure of aggressivity, AOU. Full details of the analysis techniques are given in Newstead et al (2006). Analyses by make and model of vehicle were performed on 374 individual car models for calculation of the aggressivity rating. Estimates were also obtained by market group.

4.3 Overview of Analysis Methods: Total Safety

The concept of the total secondary safety index developed in Newstead et al (2004b) forms the basis of the integrated single measure of total secondary safety developed in Newstead et al (2007c) and used here and has some inherent similarities to the crashworthiness and aggressivity metrics developed by MUARC as will become evident. Like the initial index of Newstead et al (2004b), the integrated total secondary safety index is formulated by considering the four major crash types involving light passenger vehicles and the most relevant injury outcomes in those crashes. Table 3 summarises the key elements necessary to calculate the total secondary safety index. The table is categorised by each of the four major crash types considered giving the focus crash participants whose injury outcomes are considered in the index and representations of the key injury counts by injury severity level. The final column of Table 3 gives the proportion of the total crash population represented by each crash type for the crash population being considered.

Table 3: *Light passenger vehicle crash types, injury outcome counts and percentage representation components for formulating the total secondary safety index.*

Crash Type	Focus Crash Participant	Number Involved	Number Injured	Number Killed or Seriously Injured	Proportion of Total Crash Population
1. Passenger Vehicle to Passenger Vehicle	Focus light vehicle driver	E_{1f}	I_{1f}	S_{1f}	p_1
	Other light vehicle driver	E_{1o}	I_{1o}	S_{1o}	
2. Single Passenger Vehicle	Light vehicle driver	E_2	I_2	S_2	p_2
3. Passenger Vehicle to Heavy Vehicle	Light vehicle driver	E_3	I_3	S_3	p_3
4. Passenger Vehicle to Unprotected Road User	Unprotected road user	N/A	I_4	S_4	p_4

N/A – Not fully reported in police crash records

As noted in Newstead et al (2004a), heavy vehicle drivers are typically not injured in crashes with light passenger vehicles and are hence not considered in the total secondary safety index. Similarly, drivers of the light passenger vehicle are not injured in crashes with unprotected road users and have not been included in formulating the index. Vehicle occupants other than drivers

have not been considered as they are often not recorded by police in their crash reports unless injured. Similarly, crashes involving uninjured unprotected road users are generally not reported to police and hence the total number of unprotected road users involved in crashes is unknown. The ‘focus’ light vehicle driver in Table 3 refers to the driver of the vehicle being rated whilst the ‘other’ vehicle is the collision partner.

Like the crashworthiness and aggressivity measure, the total secondary safety index is defined as the product of an injury risk component and an injury severity component. The need to define a two component measure is necessary to be able to make best use of the police reported crash databases in New Zealand and Victoria that record only crashes involving injury. It is not possible to determine the total number of crash involved people in these jurisdictions since records on crashes where no one is injured are not available. Hence these two data sets are only useful for measuring relative injury severity and not injury risk.

The measure of total secondary safety injury risk, R_T , is defined as follows:

$$R_T = p_1 \left(\frac{I_{1f} + I_{1o}}{E_{1f} + E_{1o}} \right) + p_2 \frac{I_2}{E_2} + p_3 \frac{I_3}{E_3}$$

It measures the average risk of injury across all key participants in a crash involving a light passenger vehicle weighted by the relative exposure of each participant type across the entire crash population. Since unprotected road users are generally injured crashes reported to police, they are not included in the injury risk measure. The corresponding total secondary safety injury severity measure, S_T , is defined as follows:

$$S_T = p_1 \left(\frac{S_{1f} + S_{1o}}{I_{1f} + I_{1o}} \right) + p_2 \frac{S_2}{I_2} + p_3 \frac{S_3}{I_3} + p_4 \frac{S_4}{I_4}$$

It measures the average risk of death or serious injury given some injury was sustained across all key participants in a crash weighted again by the relative exposure of each participant type across the entire crash population. The integrated total secondary safety index, T , is defined to be the product of the injury risk and injury severity components:

$$T = R_T \times S_T .$$

It measures the average risk of death or serious injury in crash involving a light passenger vehicle across all key participants in a crash weighted again by the relative exposure of each participant type across the entire crash population. It can be estimated for individual vehicle models, by vehicle market groups or for the fleet as a whole as desired with a table of the form of Table 3 being derived for each entity at the level of disaggregation desired.

The description of the total secondary safety index has defined 5 key focus crash participants whose injury outcome forms the basis of the index. Depending on the available data, it is possible to define a more detailed index that further breaks down the categories of key participants. Further breakdowns considered in developing the index were:

Unprotected road user into	Bicyclist
	Pedestrian

Cyclist

Heavy vehicle collision partner into

Rigid Truck
Articulated Truck
Bus

This made a total of 9 key participant categories considered in the total secondary safety index. The final number of categories that were able to be sustained in practical application of the index depended on the amount of crash data available from each category and the level of vehicle aggregation at which the index was being calculated (e.g. make and model of vehicle vs market group).

Like the crashworthiness and aggressivity indices developed by MUARC, the aim for the integrated total secondary safety index was that it reflect only the influence of the vehicle on injury outcome and not factors external to the vehicle such as key participant or crash characteristics. Consequently, there was a need to compensate for differences in these key non vehicle related factors that existed from vehicle model to vehicle model or by market group. Logistic regression analysis was utilised to produce total secondary safety ratings appropriately adjusted for the influence on non-vehicle related factors on injury outcome. For estimation of the total secondary safety ratings, factors in the logistic model included the available non-vehicle factors influencing injury outcome, such as driver or unprotected road user age and gender, year and jurisdiction of crash and crash configuration, as well as the variable indicating vehicle model or market group.

Since the analysis potentially included 2 drivers from the same crash in a light vehicle to light vehicle crash, an assumption implicit in the logistic modelling process was that, given the level of impact severity of the crash represented by non-vehicle factors in the logistic model, it was assumed that the injury outcome of the two drivers was independent. This assumption was considered reasonable since the estimated crashworthiness and aggressivity of vehicles rated by Newstead et al (2007a) appear to be essentially independent and each of these measure focuses heavily on the injury outcome of each driver in a two vehicle crash.

In the present report, as with the crashworthiness and aggressivity ratings each of the two components of the total secondary safety index was obtained by logistic regression modelling techniques (Hosmer & Lemeshow, 1989). Such techniques are able to simultaneously adjust for the effect of a number of factors on probabilities such as the injury risk and injury severity whilst estimating the role of vehicle model, market group or year of manufacture in the injury outcome. Only the average total secondary safety across a standardised set of crash circumstances and occupant characteristics was of interest. This method is described fully in Newstead et al (2007c) along with details on how confidence limits on the regression estimates of injury risk and severity are calculated.

The factors considered during this stage of the analysis for both injury risk and injury severity were

- **sex:** driver or unprotected road user sex (male, female)
- **age:** driver or unprotected road user age (≤ 25 years; 26-59 years; ≥ 60 years)
- **speedzone:** speed limit at the crash location (≤ 75 km/h; ≥ 80 km/h)
- **nveh:** the number of vehicles involved (one vehicle; >1 vehicle)
- **state:** jurisdiction of crash (Victoria, NSW, QLD, WA, NZ)

- **year:** year of crash (1987, 1988, ... ,2006)

A further critical factor that is likely to vary between vehicle models is the mix of collisions between light passenger vehicles and both other vehicles of various types and unprotected road users. The injury severity (S_T) and injury risk (R_T) components of the new total secondary safety measure (T) is an average of injury severity or injury risk outcomes respectively across the mix of crash types involving the focus vehicle. Since injury outcomes will vary considerably across the mix of crash types it is necessary to adjust the new total secondary safety injury severity measure and injury risk measure to account for differences in the proportion of crash type combinations between vehicle models. To adjust for potential differences a further factor was included in the logistic regression models for both total secondary safety injury risk and injury severity. The factor used was:

- **crashtyp** crash combination type,

For the injury risk analysis the crash combination types consisted of:

- two vehicle – focus vehicle driver
- two vehicle – other vehicle driver
- single vehicle
- heavy vehicle collisions (including collisions with articulated trucks, rigid trucks or buses)

For the injury severity analysis an additional collision combination type was included being collisions between a light passenger vehicle and unprotected road users (pedestrians, bicyclists or motorcyclists). This additional collision combination type was excluded from the injury risk analysis because in general crashes involving pedestrians, bicyclists and motorcyclists are seldom reported to the Police unless someone is killed or injured which is usually the unprotected road user. This means that an estimate of the risk of injury cannot be calculated for the unprotected road user.

Although heavy collisions could be further categorised into rigid truck, articulated truck or bus collisions and unprotected road users could be further categorised into pedestrians, bicyclists and motorcyclists it was important to ensure that the logistic model adequately described the data and did not yield coefficients that were imprecise or unstable. For this reason, for both heavy vehicle collisions and unprotected road user collisions, the sub type classifications were pooled to ensure sufficient data for precise and stable results.

5. RESULTS

5.1 Vehicle Crashworthiness Ratings

5.1.1 Injury Risk

Injury risk was estimated from the data on 3,001,812 drivers involved in tow-away crashes in New South Wales, South Australia, Queensland and Western Australia during 1987-2006. This data set is referred to as the "involved drivers". Because of missing values in one or more of the covariates driver sex and age, speed zone and number of vehicles involved in the crash amongst the 3,001,812 involved drivers and vehicle models of interest, the final file used for analysis consisted of the 1,716,373 drivers for which all the covariate data was complete. Of these drivers 284,597 were injured. The following non-vehicle related factors and their interactions were significantly associated with injury risk and were included in the logistic model:

Base effect terms	First order interactions	Second order interactions
Sex	Speedzone*Nveh	Age*Speedzone*Nveh
Speedzone	Sex*Nveh	Sex*Speedzone*Nveh
Age	Sex*Age	Speedzone*Year*Nveh
Nveh	Age*Nveh	Sex*Speedzone*State
State	Speedzone*Age	Speedzone*Nveh*State
Year	State*Year	State*Year*Nveh
	Nveh*State	Age*State*Nveh
	Year*Nveh	Age*Speedzone*State
	Age*State	Age*Sex*State
	Age*Year	Age*Speedzone*Year
	Speedzone*Year	Speedzone*State*Year
	Speedzone*State	Age*State*Year
	Sex*Speedzone	
	Sex*Year	
	Sex*State	

The overall (average) injury risk for involved drivers in tow-away crashes in NSW, South Australia, Western Australia and Queensland was 16.58 injuries per 100 involved drivers. Appendix 2 gives the estimates of injury risk derived by logistic regression for the 406 individual car models that were rated. Injury risk ranged from 6.99% for the 1996-2004 Peugeot 406 to 42.10% for the 1982-1990 Daihatsu Hi Jet. An estimate of the variability in the injury risk estimates was calculated from the width of the corresponding 95% confidence intervals. Individual confidence interval widths ranged from 0.69% for both the 1989-1993 and 1993-1997 Holden Commodore VN/VP, Toyota Lexcen to 16.68% for the 1982-1991 Porsche 944. The small variability for the Holden Commodore and Toyota Lexcen series sedan is not surprising due to the large number of cars of this model in the data set and precision is known to improve with increasing sample size.

The estimated injury risk for each market group is also given in Appendix 2. The large four wheel drive vehicles had the lowest injury risk (12.38%) and the light car market group had the highest (22.13%).

5.1.2 Injury Severity

The data on "injured drivers" covered 560,129 drivers of 1982-2006 model vehicles who were injured in crashes in Victoria, New South Wales, South Australia, Western Australia, Queensland or New Zealand during 1987-2006. Because of missing values in one or more of the covariates amongst the 560,129 injured drivers, the final file used for analysis consisted of the 322,242 drivers for which all the covariate data was complete. Of these drivers 66,520 were seriously injured. The following non-vehicle related factors and their interactions were significantly associated with injury severity and were included in the logistic model:

Base effect terms	First order interactions	Second order interactions	Third order interactions
Sex	Sex*State	Speedzone*Nveh*State	Speedzone*State*Year*Nveh
Speedzone	Speedzone*Nveh	Speedzone*State*Year	
Age	Age*Sex	Age*State*Nveh	
Nveh	Nveh*State	Age*State*Year	
State	Speedzone*Age	State*Year*Nveh	
Year	Age*State	Speedzone*Year*Nveh	
	Age*Nveh	Age*Speedzone*State	
	State*Year		
	Speedzone*Year		
	Age*Year		
	Year*Nveh		
	Speedzone*State		

The average injury severity for injured drivers in the data analysed was 20.64 deaths or serious injuries per 100 injured drivers. Appendix 3 gives the estimates of injury severity derived by logistic regression for 406 individual car models, or sets of combined models. Of the cars analysed, injury severity ranged from 4.68% for the 2004-2006 Volkswagen Golf / Jetta to 47.25% for the 1982-1984 Alfa Romeo GTV. An estimate of the variability in the estimates of injury severity was calculated from the width of the corresponding 95% confidence intervals. Individual confidence interval widths ranged from 1.84% for the 1982-88 Ford Laser and Mazda 323 / Familia to 42.32% for the 1982-1991 Porsche 944.

The estimated injury severity for each market group is also given in Appendix 3. Compact four wheel drive vehicles performed best with respect to injury severity, having the lowest average injury severity of 19.38%. The light car market group had the highest average injury severity of 22.07%.

5.1.3 Crashworthiness Ratings

The crashworthiness ratings for each car model and market group were obtained by multiplying the individual injury risk and injury severity estimates. Because each of the two components had been adjusted for the confounding factors, the resultant crashworthiness rating was also adjusted for the influence of these factors.

Crashworthiness ratings were obtained for each individual model and market group after adjusting for the confounding factors. Appendix 4 gives the crashworthiness ratings and the associated 95% confidence intervals for each of the 406 car models included in the analyses. Appendix 4 also gives the crashworthiness ratings with 90% confidence limits for each of the 406 vehicle models. Each rating is expressed as a percentage, representing the number of drivers killed or admitted to hospital per 100 drivers involved in a tow-away crash. Overall ratings for the market groups are also given.

Each crashworthiness rating is an *estimate* of the true risk of a driver being killed or admitted to hospital in a tow-away crash and, as such, each estimate has a level of uncertainty about it. This uncertainty is indicated by the confidence limits in Appendix 4. There is 95% probability that the confidence interval will cover the true risk of serious injury (death or hospital admission) to the driver of the particular model of vehicle. Unlike in previous updates no ratings have been excluded at this stage as it was considered useful for consumer information to present them.

Table 4 gives a summary of the estimated ratings for each of the 10 defined vehicle market groups. It shows the estimated injury risk and severity components, and the resulting crashworthiness rating with upper and lower 95% confidence limits, and the width of the 95% confidence limit. The relative ranking of the crashworthiness rating on each market group is also given in Table 4 although this should be interpreted with care as there is not necessarily a statistically significant difference between the average crashworthiness of vehicle market groups with different rankings. Statistical significance in average crashworthiness between market groups at the 5% level is only achieved when the 95% confidence limits do not overlap. Similar comments apply to interpreting results in Appendix 4.

Table 4: *Estimated Vehicle Crashworthiness by Market Grouping*

Market Group	Injury Risk (%)	Injury Severity (%)	Crashworthiness Rating*	Overall rank order	Lower 95% Confidence limit	Upper 95% Confidence limit	Width of Confidence interval
Overall Average	16.58	20.64	3.42				
COMPACT FOUR WHEEL DRIVE	17.76	19.38	3.44	6	3.24	3.65	0.41
MEDIUM FOUR WHEEL DRIVE	12.87	19.44	2.50	1	2.32	2.70	0.38
LARGE FOUR WHEEL DRIVE	12.38	21.39	2.65	2	2.51	2.79	0.28
COMMERCIAL - VAN	17.57	20.82	3.66	7	3.46	3.87	0.41
COMMERCIAL - UTE	15.28	21.28	3.25	4	3.15	3.36	0.21
LARGE	15.56	20.20	3.14	3	3.08	3.21	0.13
MEDIUM	16.88	20.23	3.42	5	3.34	3.50	0.16
PEOPLE MOVERS	17.96	21.15	3.80	8	3.58	4.03	0.44
LIGHT	22.13	22.07	4.88	10	4.75	5.02	0.28
SMALL	19.26	20.58	3.97	9	3.88	4.05	0.17

* Serious injury rate per 100 drivers involved

5.1.4 Comparisons with the All Model Average Rating

Based on the average injury risk and injury severity values in the data used to compute the ratings estimate, the average crashworthiness of all vehicles appearing in the data was 3.42% (3.42 serious driver injuries per 100 crash involvements). Computing the all model average in this way gives more weight to vehicles with greater representation in the crash data. Another way of computing the all model average rating is to simply take an un-weighted numerical average of the 406 vehicles for which a crashworthiness rating was calculated. This method

gives equal weight to each vehicle in the average. For the 406 vehicles rated in this study, the un-weighted numerical average crashworthiness is 3.68 (3.68 serious driver injuries per 100 crash involvements).

Ultimately the point against which ratings for individual vehicles are compared is arbitrary, whether it is either of the averages described above or some other point. For the purpose of comparing the crashworthiness ratings to an average value in this study, the un-weighted numerical average of all vehicles included in the analysis (3.68) was used. This was chosen as it gave better distribution of the vehicles into the five rating categories used for presentation of the ratings for consumer information (see Section 5.4). Any other comparison value could be used with equal legitimacy.

90% confidence limits were used to judge whether the true risk of death or hospitalisation for a driver of a specific model car involved in a tow-away crash is really different from the defined average for all models, i.e. 3.68 per 100 involved drivers. An upper limit below the average is indicative of superior crashworthiness, whereas a lower limit above the average suggests inferior crashworthiness. Other models also have crashworthiness ratings at the low or high end of the scale, but their confidence limits overlap the all model average. Although such models may also have superior or inferior crashworthiness characteristics, the database did not contain sufficient numbers of these models for the data to represent scientific evidence that this is the case.

In terms of statistical significance, it should be noted that classifying vehicles as having inferior or superior crashworthiness compared to the defined average means only that vehicle models with 'superior' crashworthiness have statistically significantly better crashworthiness than vehicles in the defined 'inferior' group. It is possible that vehicles within the inferior and superior crashworthiness categories also had statistically significant differences in crashworthiness. This could be assessed by examining overlap in the statistical confidence limits for any pair wise comparison of two vehicles. One of the main points in defining groups of vehicles with inferior and superior crashworthiness is to show that the analysis can differentiate with statistical precision crashworthiness between groups of vehicles within the rated vehicle population.

One hundred and five models had ratings representing evidence of superior crashworthiness because their upper 90% confidence limits were less than the average rating. These were distributed across market group classifications as follows:

Compact Four Wheel Drives	6
Medium Four Wheel Drives	8
Large Four Wheel Drives	9
Commercial – Vans	5
Commercial – Utes	12
Large cars	24
Medium cars	21
People Movers	5
Small cars	15

The specific models were (in order of estimated risk of serious driver injury in a crash, from lowest to highest):

- Volkswagen Golf / Jetta (2004-2006)
- Kia Carnival (1999-2006)

- Hyundai Grandeur / XG (1999-2000)
- Volkswagen New Beetle (2000-2006)
- Mazda MPV (1994-1999)
- Ford Explorer (2001-2005)
- Mercedes Benz M-Class W163 (1998-2005)
- BMW 7 Series E38 (1995-2001)
- Peugeot 406 (1996-2004)
- Lexus IS200 / IS300 (1999-2004)
- Ford Transit (2001-2006)
- Ford Focus LS (2005-2005)
- Volkswagen Passat (1998-2006)
- Audi A3/S3 (1997-2004)
- Volkswagen Caravelle / Transporter (1995-2004)
- Saab (199000 86-1997)
- Land Rover Range Rover (1995-2002)
- Toyota Landcruiser Prado (2003-2006)
- Mitsubishi Pajero NM / NP / NS (2000-2006)
- Jeep Grand Cherokee WJ/WG (1999-2005)
- Toyota Kluger (2003-2006)
- Toyota Landcruiser Prado (1996-2003)
- Mitsubishi Magna TL/TW / Verada KL/KW (2003-2005)
- Ford Falcon Ute BA/BF (2003-2006)
- Honda CR-V (2002-2006)
- Peugeot 307 (2001-2006)
- Nissan Pathfinder / Terrano / Regulus (1995-2005)
- Mazda 3 (2003-2006)
- Mazda 6 (2002-2006)
- Holden Astra AH (2004-2006)
- Holden Statesman/Caprice WH (1999-2003)
- Honda Accord Euro (2003-2006)
- Saab (19900/9-3 (1994-2002)
- BMW 5 Series E39 (1996-2003)
- Volkswagen Golf / Bora (1999-2004)
- Mercedes Benz Vito / Viano (1999-2006)
- Jaguar XJ6 (1987-1994)
- Nissan Patrol / Safari (1998-2004)
- Land Rover Discovery (1991-2002)
- Honda Odyssey (1995-2000)
- Nissan Serena (1992-1995)
- Peugeot 306 (1994-2001)
- Honda CR-V (1997-2001)
- Ford Falcon Panel Van (1996-1999)
- Mitsubishi Triton MK (1996-2006)
- Subaru Forester (2002-2006)
- Ford Fairlane & LTD AU (1999-2002)
- Nissan Navara (1997-2005)
- Toyota Camry (2002-2006)
- Honda Accord (1999-2002)
- BMW 3 Series E46 (1999-2004)
- Holden Commodore VY/VZ (2002-2006)
- Kia Sportage (1998-2003)
- Ford Falcon BA/BF (2002-2006)
- Mercedes Benz E-Class W210 (1996-2002)
- Holden Rodeo (2003-2006)
- Subaru Forester (1997-2002)
- Mercedes Benz C-Class W202 (1995-2000)
- Subaru Liberty / Legacy / Outback (1999-2003)

- Audi A4 (1995-2001)
- Volvo 700/900 Series (1984-1992)
- Ford Falcon Ute AU (2000-2002)
- Ford Mondeo (1995-2001)
- Holden Commodore VY/VZ Ute (2002-2006)
- Subaru Impreza (2001-2006)
- Peugeot 505 (1982-1993)
- Toyota Landcruiser (1998-2006)
- Mitsubishi Pajero (1992-1999)
- Nissan / Ford Patrol / Maverick / Safari (1988-1997)
- Mercedes Benz E-Class W124 (1986-1994)
- Ford Ford F-Series (1982-1992)
- Toyota Avalon (2000-2005)
- Holden Vectra (1997-2003)
- Honda Legend (1986-1995)
- Volvo 850/S70/V70/C70 (1992-2004)
- Toyota Hilux (2003-2004)
- Jeep Cherokee XJ (1996-2000)
- Land Rover Range Rover (1982-1994)
- Toyota Hilux (1998-2002)
- Ford Focus LR (2002-2005)
- Ford Falcon AU (1998-2002)
- Toyota Corolla (1998-2001)
- Toyota Cressida / Mark II (1989-1993)
- Toyota Tarago / Previa / Estima (1991-1999)
- Holden Commodore VT/VX (1997-2002)
- Ford Fairlane N & LTD D (1988-1994)
- Holden Astra TS (1998-2006)
- Ford / Mazda Courier / B-Series / Bounty (1998-2002)
- Honda Accord (1991-1993)
- Toyota Camry (1998-2002)
- Toyota Landcruiser (1990-1997)
- Ford Falcon Ute (1996-1999)
- Subaru Liberty / Legacy / Outback (1994-1998)
- Holden Rodeo (1999-2002)
- Mitsubishi Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante (1996-2003)
- Toyota RAV4 (1994-2000)
- Ford Falcon EF/EL (1994-1998)
- Toyota Hiace/Liteace (1996-2004)
- BMW 3 Series E36 (1992-1998)
- Holden Stateman/Caprice VR/VS (1994-1998)
- Toyota Corolla (2002-2006)
- Holden / Toyota Commodore VR/VS / Lencen (1993-1997)
- Ford / Mazda Laser / 323 (1999-2003)
- Mitsubishi Magna TR/TS / Verada KR/KS / V3000 / Diamante (1991-1996)
- Ford Falcon EB Series II / Falcon ED Apr (1992-1994)

One hundred and five models had ratings representing evidence of inferior crashworthiness because their lower confidence limits were greater than the average rating. These were distributed across market group classifications as follows:

Compact Four Wheel Drives	5
Large Four Wheel Drives	1
Commercial – Vans	7
Commercial – Utes	6

Large cars	8
Medium cars	15
People Movers	3
Light cars	22
Small cars	38

The specific models were (in order of estimated risk of serious driver injury in a crash, from highest to lowest):

- Daihatsu Hi-Jet (1982-1990)
- Suzuki Alto (1985-2000)
- Daihatsu Mira (1990-1996)
- Holden / Suzuki Scurry / Carry (1982-2000)
- Suzuki Mighty Boy (1985-1988)
- Suzuki Hatch / Alto (1982-1984)
- Subaru Sherpa / Fiori / 700 / Rex (1989-1992)
- Daihatsu Handivan (1982-1990)
- Mitsubishi Starion (1982-1987)
- Suzuki Swift (1982-1985)
- Daihatsu Charade (1982-1986)
- Nissan Exa (1983-1986)
- Alfa Romeo GTV (1982-1984)
- Holden / Suzuki Barina / Swift / Cultus (1986-1988)
- Mitsubishi Starwagon / L300 (1983-1986)
- Honda City (1983-1986)
- Toyota MR2 (1987-1990)
- Volkswagen Golf (1982-1994)
- Holden Statesman/Caprice WB (1982-1985)
- Honda CRX (1987-1991)
- Nissan Micra (1995-1997)
- Daihatsu Rocky / Rugger (1985-1998)
- Holden Shuttle / WFR Van (1982-1987)
- Hyundai Excel (1986-1990)
- Subaru Brumby (1982-1992)
- Toyota Supra (1982-1990)
- Nissan NX/NX-R (1991-1996)
- Daihatsu Charade (1988-1992)
- Daihatsu Charade (1993-2000)
- Hyundai Getz (2002-2006)
- Daewoo Kalos (2003-2004)
- Holden / Nissan Astra / Pulsar / Langley (1984-1986)
- Holden Cruze (2002-2006)
- Honda Civic / Ballade / Shuttle (1984-1987)
- Mitsubishi Cordia (1983-1987)
- Ford / Mazda Festiva WA / 121 (1987-1990)
- Ford Festiva WD/WH/WF (1994-2001)
- Mitsubishi Mirage / Colt (1982-1988)
- Holden Gemini RB (1986-1987)
- Kia Ceres (1992-2000)
- Nissan Gazelle / Silvia (1984-1986)
- Holden / Suzuki Drover / Sierra / Samurai / SJ410 / SJ413 (1982-1999)
- Ford Capri (1989-1994)
- Toyota Tarago (1983-1989)
- Daewoo Espero (1995-1997)
- Holden / Suzuki Barina / Swift / Cultus (1989-1999)

- Hyundai Excel (1990-1994)
- Toyota Hiace/Liteace (1982-1986)
- Ford / Mazda Laser / 323 / Familia (1982-1988)
- Suzuki Ignis (2000-2002)
- Holden Gemini (1982-1984)
- Toyota Tercel (1983-1988)
- Toyota Corolla (1982-1984)
- Mazda RX7 (1982-1985)
- Holden Camira (1982-1989)
- Honda Civic (1982-1983)
- Mitsubishi Lancer / Mirage CB (1991-1992)
- Hyundai S Coupe (1990-1996)
- Nissan Bluebird (1982-1986)
- Holden WB Series (1982-1985)
- Daihatsu Terios (1997-2005)
- Honda Accord (1982-1985)
- Daewoo Matiz (1999-2004)
- Toyota Starlet (1996-1999)
- Toyota Hiace/Liteace (1987-1989)
- Toyota Corolla (1986-1988)
- Mitsubishi Starwagon / Delica Starwagon (1987-1993)
- Hyundai Excel / Accent (1995-2000)
- Holden / Nissan Astra / Pulsar / Vector / Sentra (1988-1990)
- Hyundai Lantra (1991-1995)
- Toyota Corona (1982-1988)
- Daewoo Lanos (1997-2003)
- Honda Integra (1986-1988)
- Subaru 1800 / Leone / Omega / 4WD Wagon (1982-1993)
- Honda Civic / Shuttle (1988-1991)
- Holden Commodore VB-VL (1982-1988)
- Mitsubishi Sigma / Galant / Sapporo / Lambda (1982-1984)
- Nissan / Ford Pintara / Corsair / Bluebird (1989-1992)
- Toyota Camry (1983-1986)
- Hyundai Accent (2000-2006)
- Mazda 121 / Autozam Review (1994-1996)
- Daihatsu Applause (1989-1999)
- Holden Barina SB (1995-2000)
- Daewoo Cielo (1995-1997)
- Ford Laser (1995-1997)
- Toyota 4Runner/Hilux (1982-1985)
- Suzuki Vitara / Escudo (1988-1998)
- Mazda (19929 / Luce (1982-1990)
- Mitsubishi Magna TM/TN/TP / Sigma / V3000 (1985-1990)
- Toyota Hiace/Liteace (1990-1995)
- Nissan Skyline (1983-1988)
- Toyota / Holden Corolla / Nova (1989-1993)
- Subaru Impreza (1993-2000)
- Ford Laser (1991-1994)
- Honda Prelude (1983-1991)
- Mitsubishi Lancer / Mirage CE (1996-2003)
- Nissan Pulsar / Vector / Sentra (1996-1999)
- Ford / Mazda Telstar / 626 / MX6 / Capella (1983-1986)
- Nissan Pintara (1986-1988)
- Mitsubishi Lancer / Mirage CC (1993-1995)
- Toyota 4Runner/Hilux (1986-1988)
- Toyota Landcruiser (1982-1989)
- Ford Falcon XE/XF (1982-1988)

- Toyota / Holden Corolla / Nova (1994-1997)
- Holden / Toyota Commodore VN/VP / Lexcen (1989-1993)

Figures 1 to 10 display for each of the market groups the crashworthiness ratings of vehicles together with their 90% confidence limits. Also displayed on each graph is a line representing the average crashworthiness rating of 3.68% and two lines at 3.13% and 4.23% representing 15% better than average or 15% worse than average respectively.

Figure 1: *Crashworthiness Ratings for Compact Four Wheel Drive vehicles (with 90% confidence limits)*

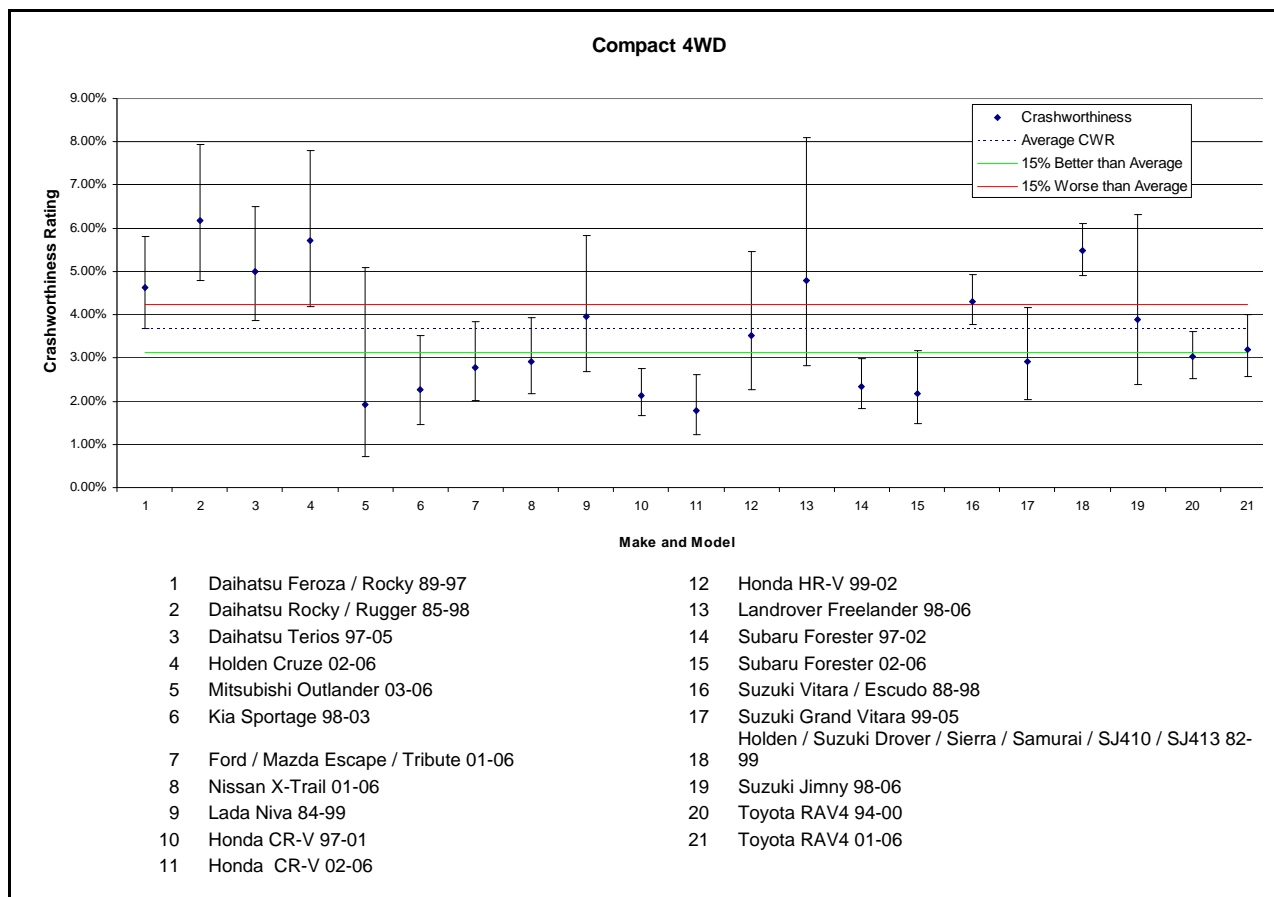


Figure 2: *Crashworthiness Ratings for Medium Four Wheel Drive vehicles (with 90% confidence limits)*

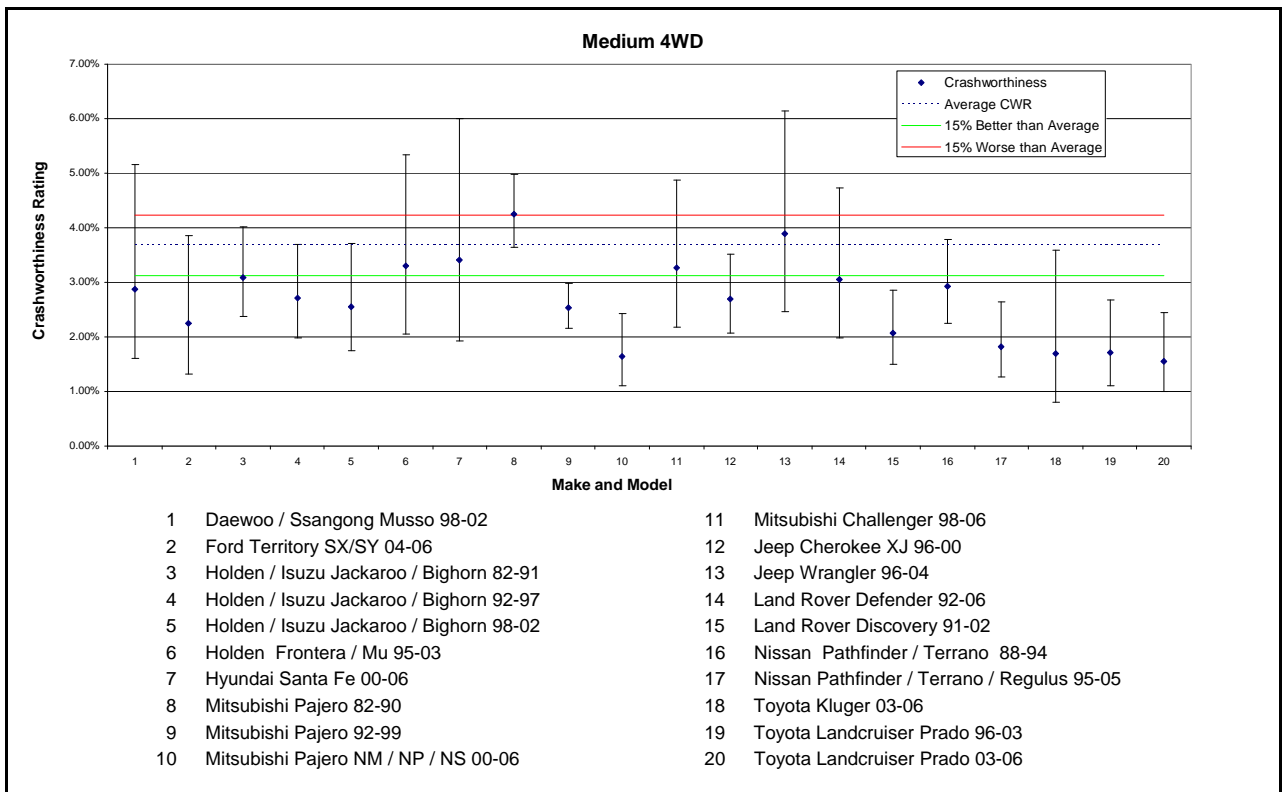


Figure 3: *Crashworthiness Ratings for Large Four Wheel Drive vehicles (with 90% confidence limits)*

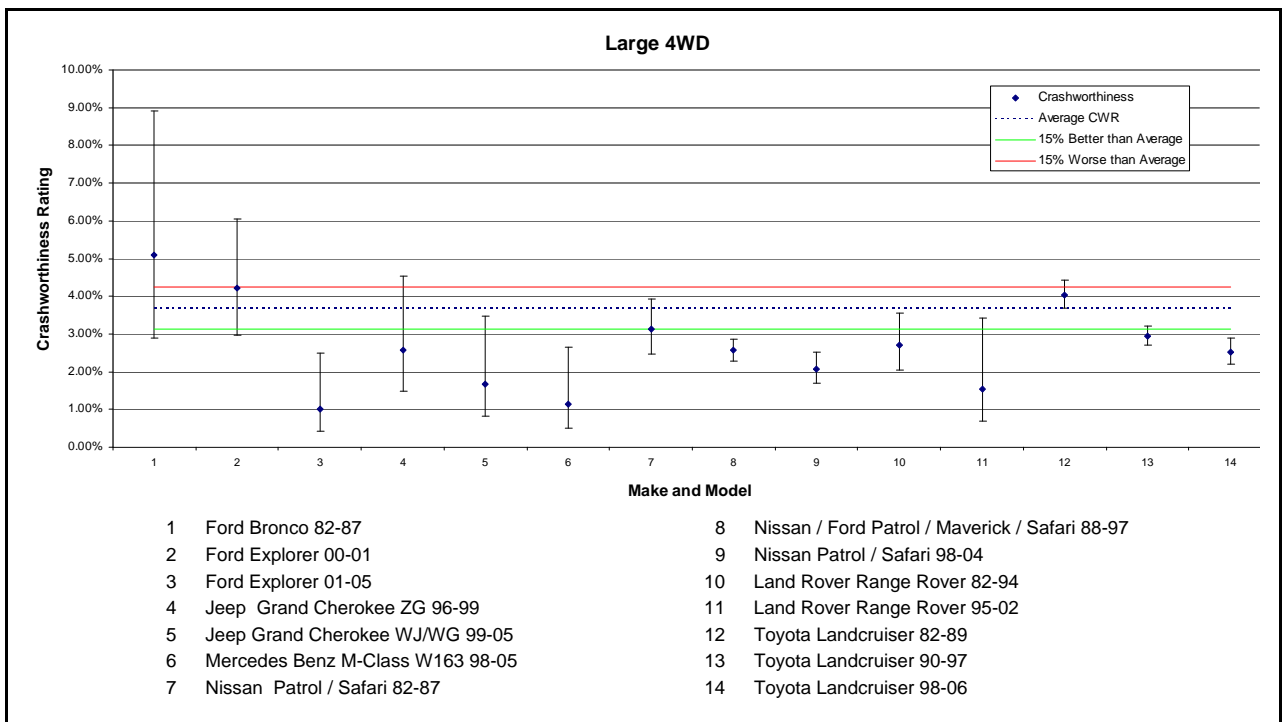


Figure 4: *Crashworthiness Ratings for Commercial Vans (with 90% confidence limits)*

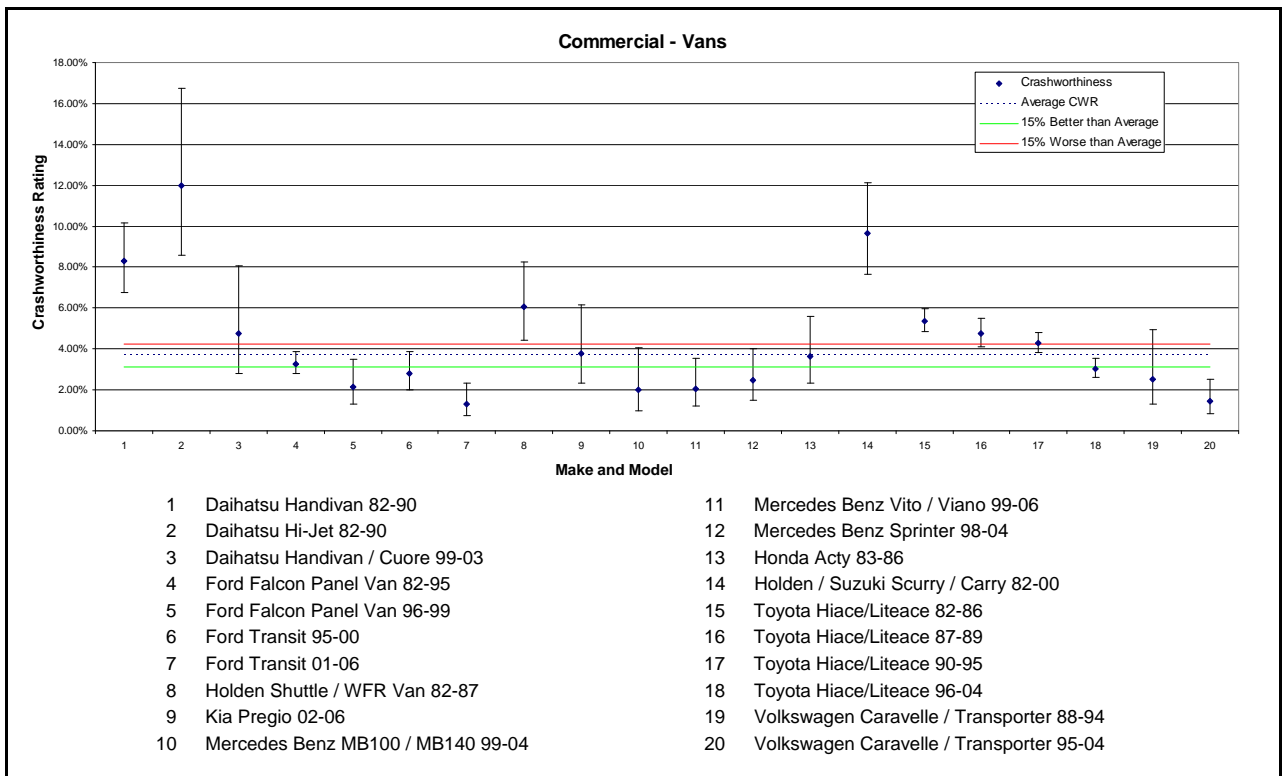


Figure 5: *Crashworthiness Ratings for Commercial Utes (with 90% confidence limits)*

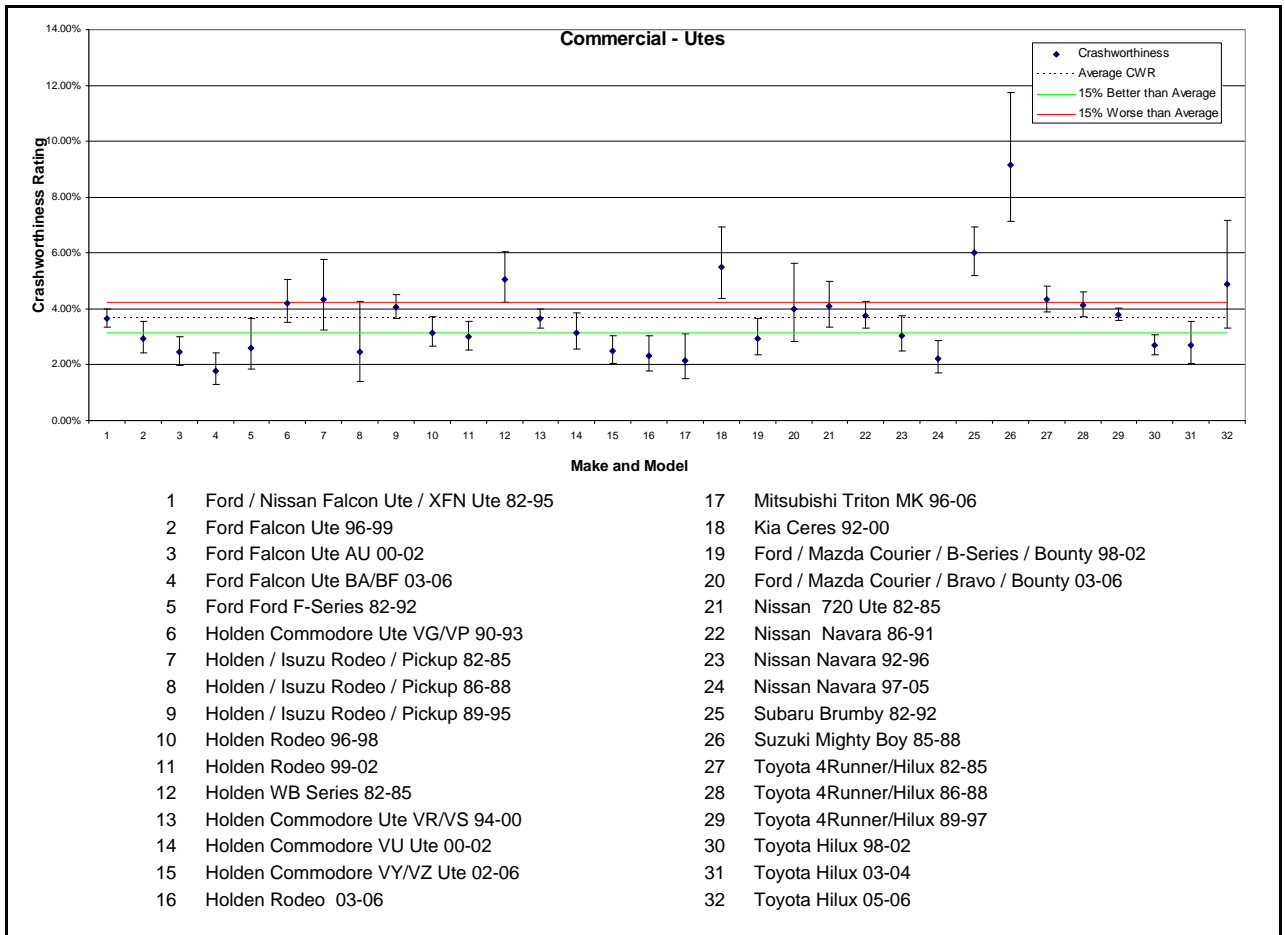


Figure 6: Crashworthiness Ratings for Large cars (with 90% confidence limits)

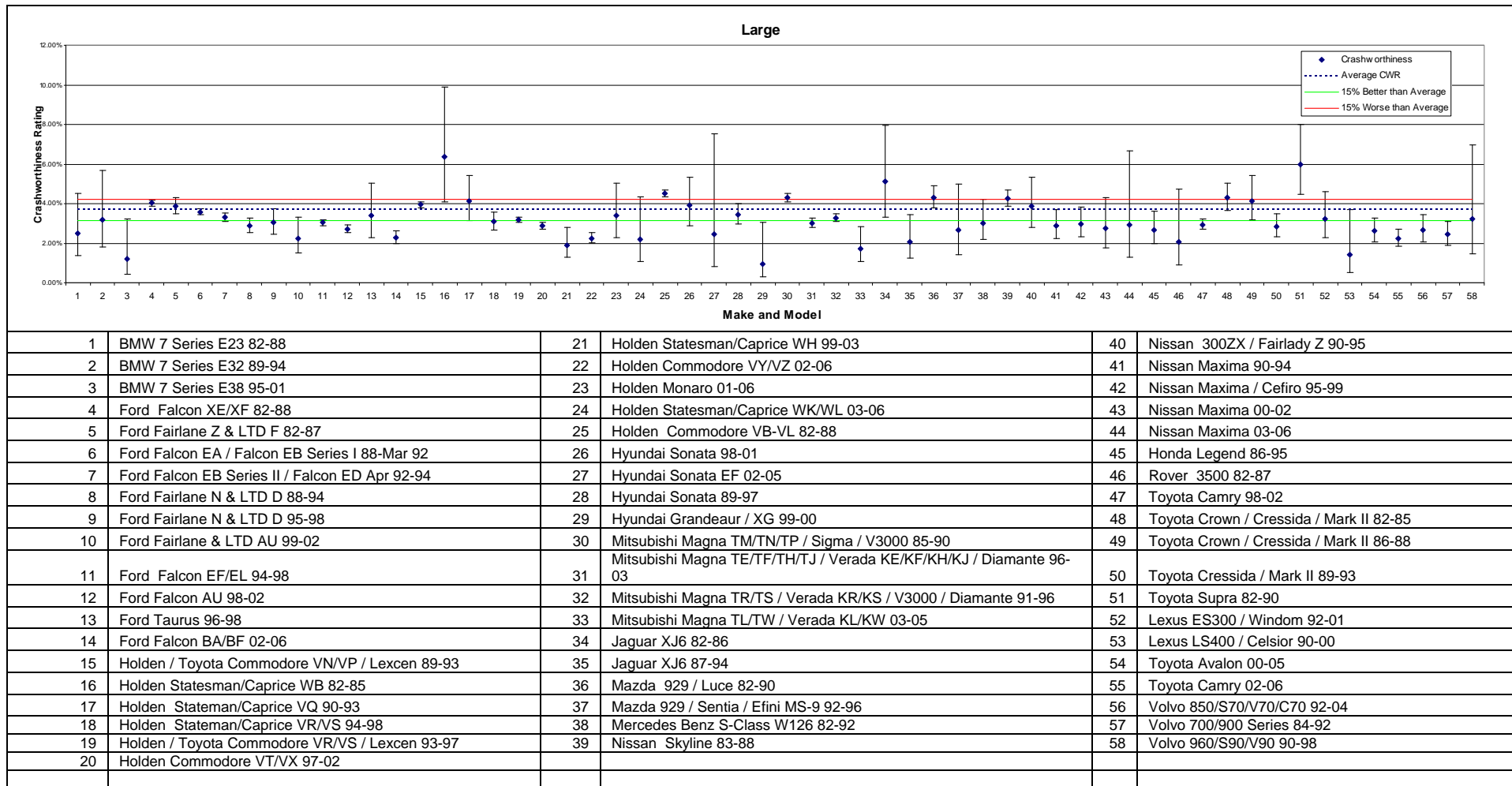


Figure 7: Crashworthiness Ratings for Medium cars (with 90% confidence limits)

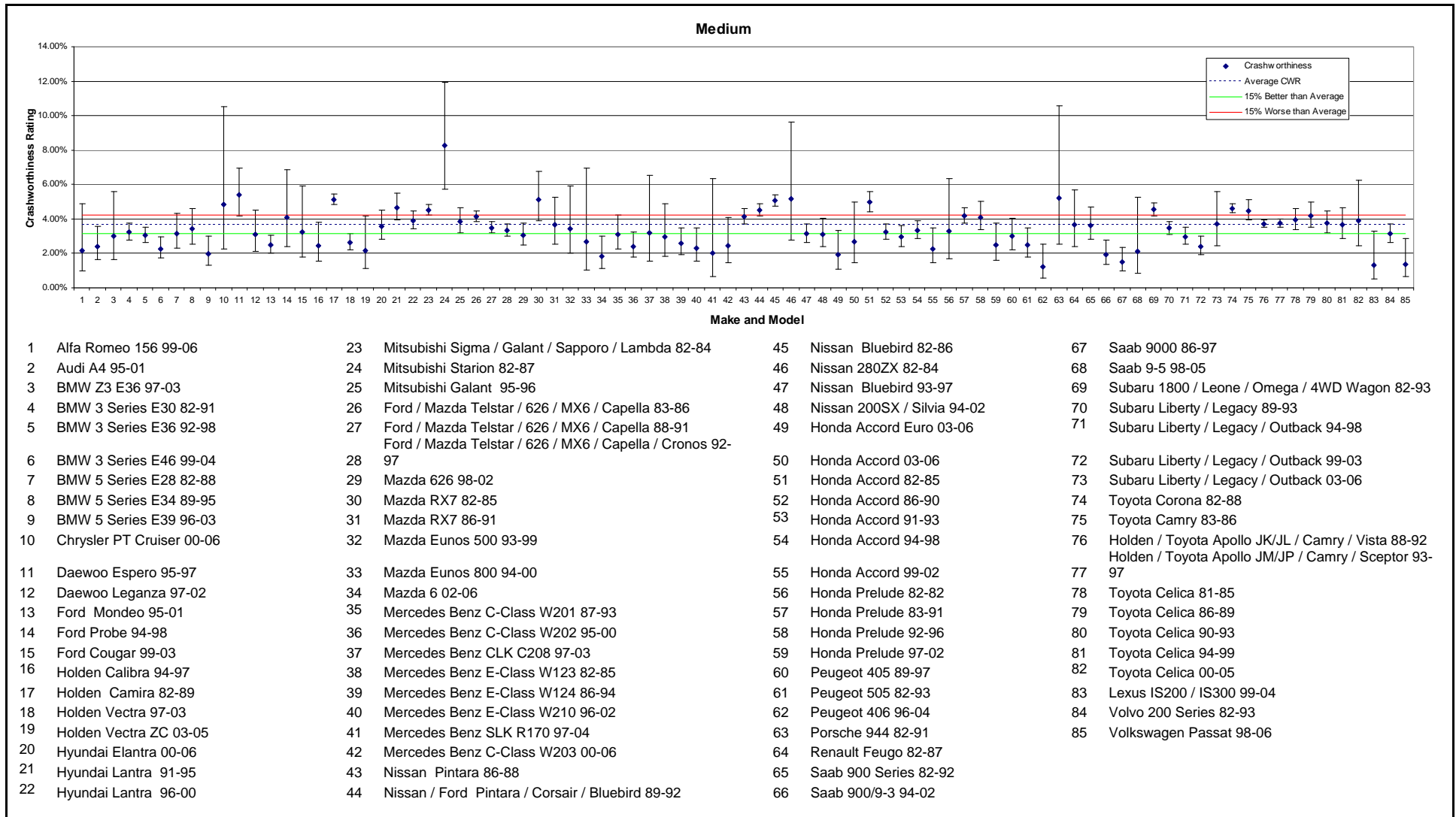


Figure 8: *Crashworthiness Ratings for Small cars (with 90% confidence limits)*

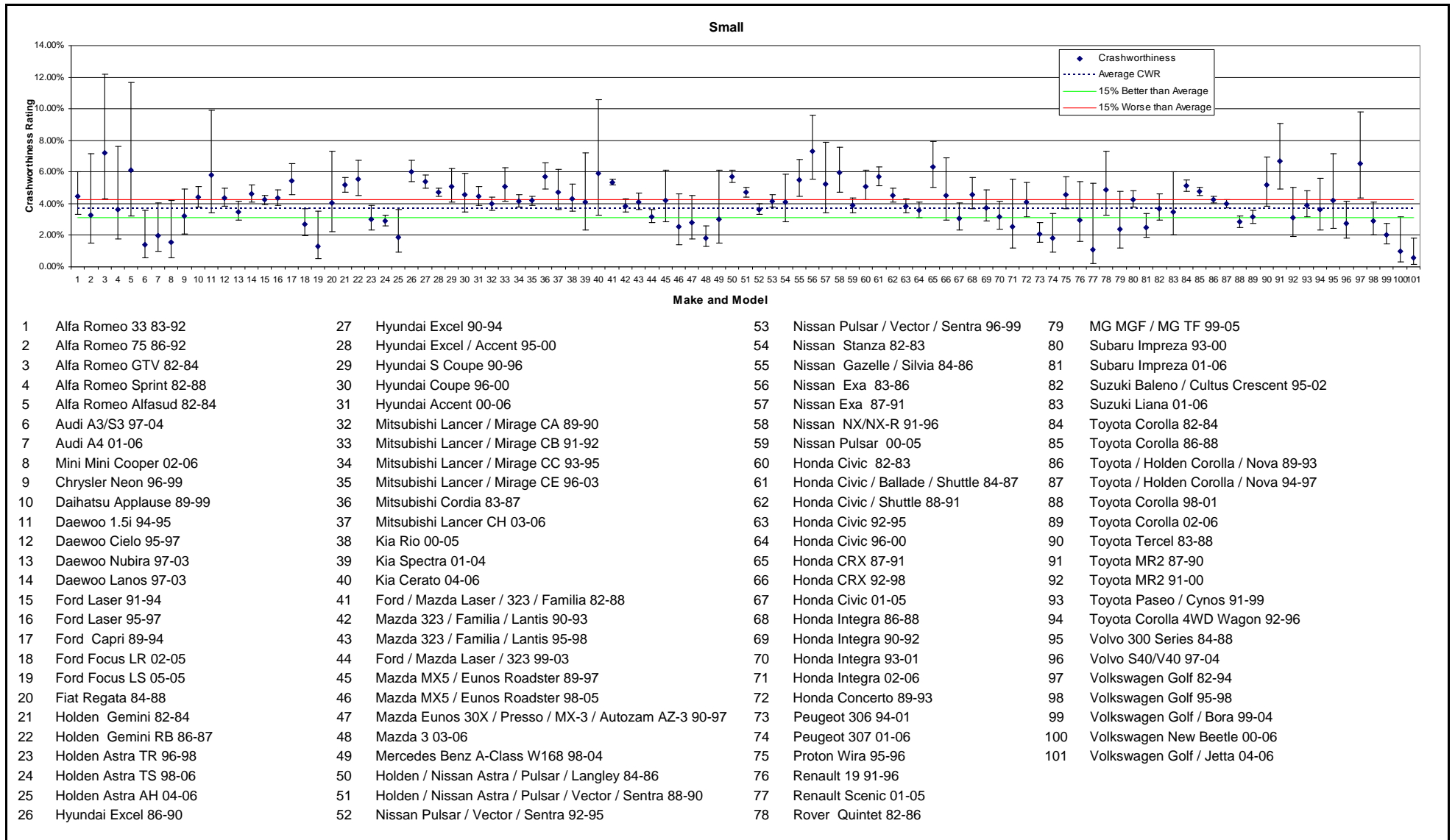


Figure 9: Crashworthiness Ratings for Light cars (with 90% confidence limits)

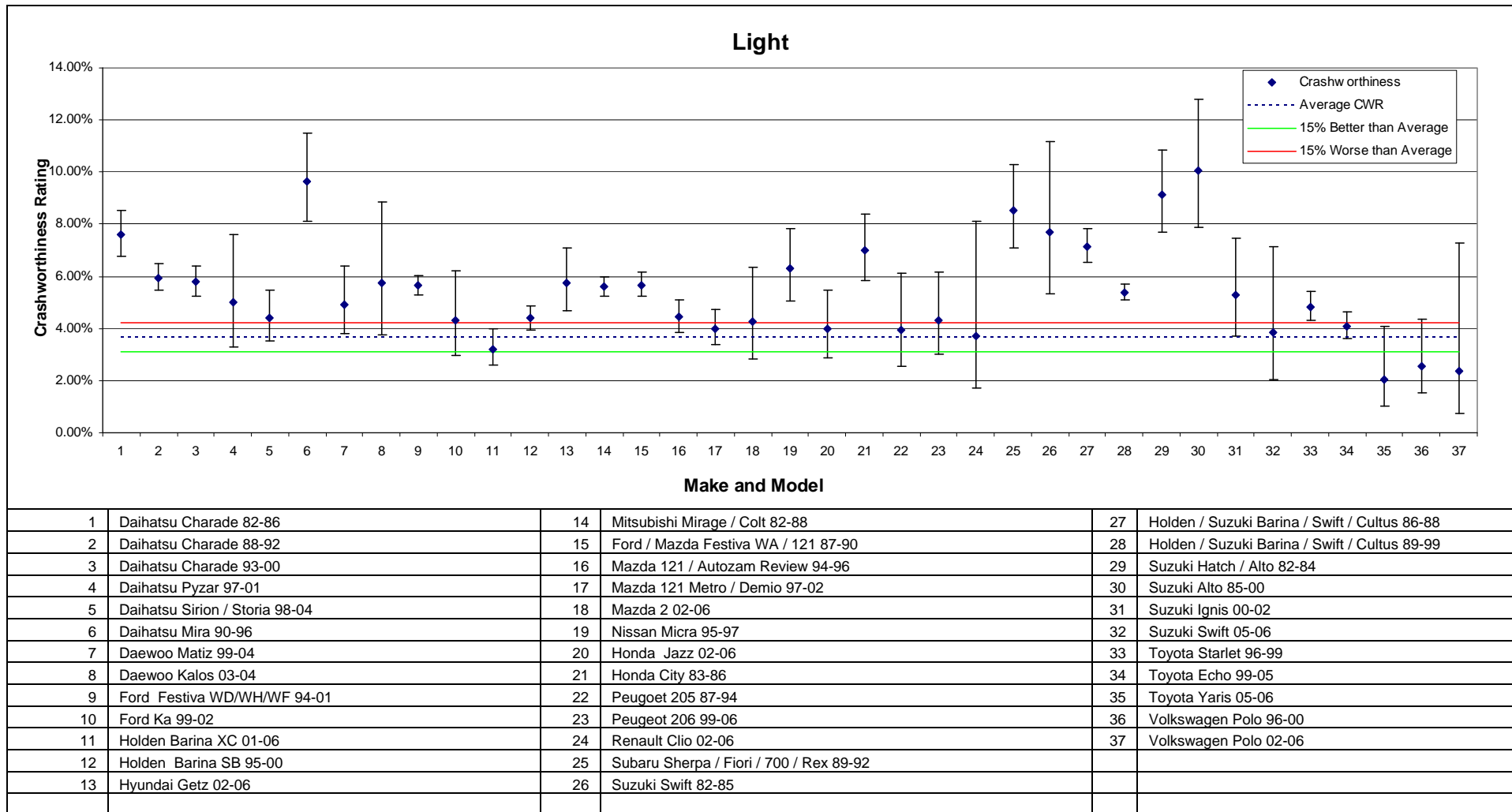
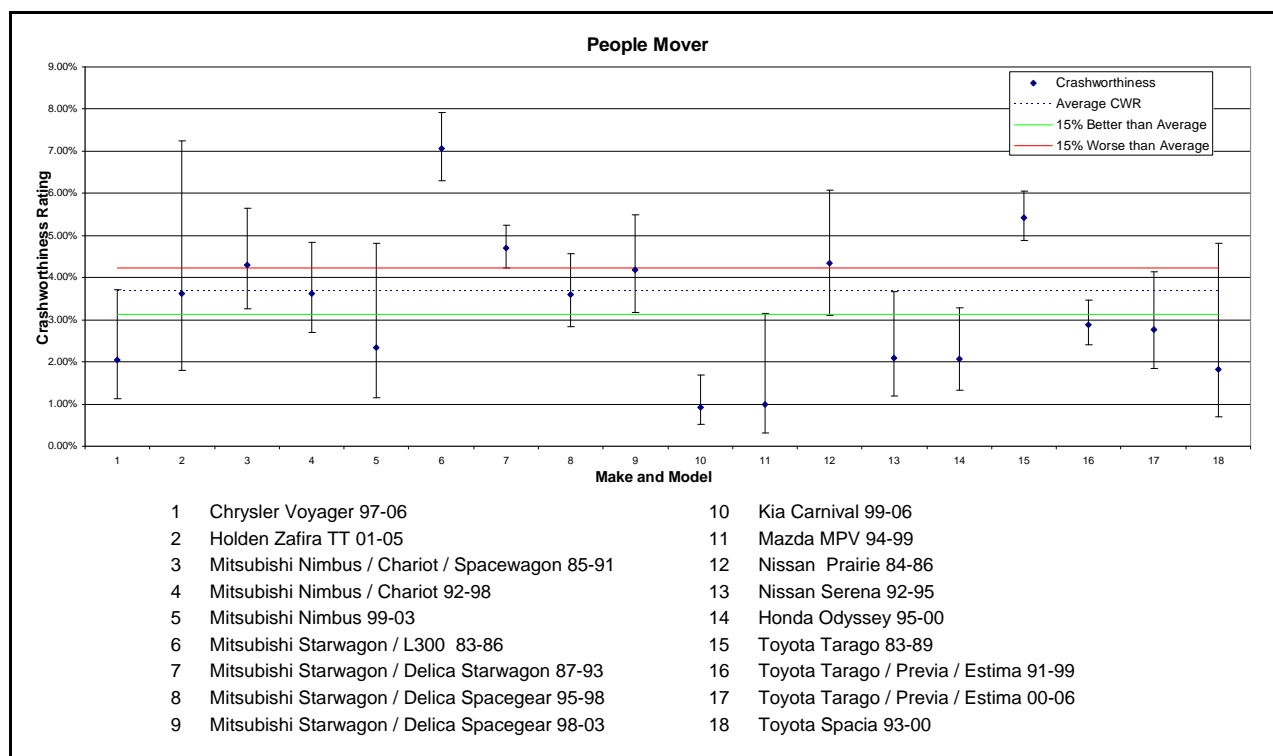


Figure 10: *Crashworthiness Ratings for People Movers (with 90% confidence limits)*



5.2 Aggressivity

5.2.1 Aggressivity towards Other Car Drivers and Unprotected Road Users

Using the methods described in Section 4.2, logistic regression models of the injury risk and injury severity of the focus road user were built separately as functions of both vehicle model and market group of the focus vehicle colliding with the other road user whose injury outcome is being modelled. Variations in the other factors listed in Section 4.2, including other road user type, were adjusted in the model by including them as predictors in the logistic regression models along with the focus vehicle model or market group. The aggressivity injury risk measure is based only on the injury outcome to drivers of other vehicles.

The logistic regression models of aggressivity injury risk showed the following non-vehicle factors and their interactions to be statistically significant predictors of injury risk (factors age and sex refer to focus driver whose injury outcome is being modelled). The average aggressivity injury risk in the data was 14.84%.

Base effect terms	First order interactions	Second order interaction
Sex	Sex*Year	Sex*State*Year
Speedzone	Age*Speedzone	Age*State*Year
Age	Age*Sex	Sex*Speedzone*State
State	Age*Year	Speedzone*State*Year
Year	Speedzone*Year	
	Speedzone*State	
	Age*State	
	State*Year	
	Sex*State	
	Sex*Speedzone	

The logistic regression models of aggressivity injury severity users showed the following non-vehicle factors and their interactions to be statistically significant predictors of injury severity. These factors were included in the logistic model (factors age and sex refer to the age and sex of the other driver or unprotected road user). The average aggressivity injury severity in the data was 22.69%.

Base effect terms	First order interactions	Second order interaction
Sex	Sex*State	Age*Sex*State
Speedzone	Sex*Crashtype	Speedzone*State*Crashtype
Age	Age*Sex	Speedzone*State*Year
State	Age*Crashtype	Age*State*Crashtype
Year	Year*Crashtype	Speedzone*Year*Crashtype
Crashtype	Speedzone*State	State*Year*Crashtype
	Age*State	Sex*State*Crashtype
	State*Crashtype	Sex*Year*Crashtype
	State*Year	
	Speedzone*Year	
	Speedzone*Crashtype	
	Sex*Year	

Final estimates of vehicle aggressivity towards other road users were obtained by multiplying the estimated injury risk and injury severity components for each vehicle. Confidence limits on each of the estimated aggressivity ratings were calculated. The average aggressivity rating in the data, used for comparisons against aggressivity of individual vehicle models was 3.53%.

Aggressivity ratings were obtained for 374 different vehicle models that satisfied the inclusion criteria for analysis. The estimated aggressivity ratings and their injury risk and injury severity components for individual vehicle models are given in Appendix 5 along with (95% confidence limits on the estimated aggressivity ratings).

Table 5 summarises the estimated injury risk, injury severity and aggressivity ratings by the 10 broad market groups along with the estimated (95% confidence limits on the aggressivity ratings). The estimated aggressivity rating is the expected number of road users killed or seriously injured per 100 involved in two-car tow-away collisions where their vehicle impacts with one of the designated models or market groups. Table 5 shows large four wheel drive vehicles to be the most aggressive towards drivers of other vehicles, with an average of 5.05 unprotected road users or drivers being killed or seriously injured for every 100 tow-away

crashes with a large four wheel drive. Similarly, Table 5 shows light cars to be the least aggressive towards unprotected road users or drivers of other vehicles, with an average aggressivity rating of 2.29.

Table 5: *Estimated Vehicle Aggressivity towards Other Drivers and Unprotected Road Users by Market Grouping*

Market Group	Other Driver Injury Risk (%)	Other Driver Injury Severity (%)	Aggressivity Rating *	Overall rank order	Lower (1995% Confidence limit)	Upper (1995% Confidence limit)	Width of Confidence interval
Overall Average	14.84	22.69	3.37				
COMPACT FOUR WHEEL DRIVE	13.72	21.73	2.98	4	2.77	3.21	0.43
MEDIUM FOUR WHEEL DRIVE	17.03	23.31	3.97	7	3.70	4.26	0.56
LARGE FOUR WHEEL DRIVE	18.46	27.37	5.05	10	4.83	5.29	0.46
COMMERCIAL - VAN	17.96	23.63	4.24	9	4.02	4.48	0.47
COMMERCIAL - UTE	16.21	24.64	3.99	8	3.86	4.13	0.27
LARGE	14.49	21.96	3.18	5	3.11	3.25	0.14
MEDIUM	13.19	21.10	2.78	3	2.71	2.86	0.16
PEOPLE MOVERS	15.91	22.88	3.64	6	3.42	3.88	0.46
LIGHT	11.28	20.28	2.29	1	2.21	2.37	0.16
SMALL	11.75	20.64	2.43	2	2.36	2.49	0.13

* Serious injury rate per 100 drivers of other vehicles and unprotected road users involved in collisions with vehicles from the given market group

5.2.2 Aggressivity Rating Statistically Significant Makes and Models

Appendix 5 shows the estimated aggressivity ratings towards drivers of other vehicles and unprotected road users for the 374 individual vehicle models rated. Ratings ranged from a minimum of 0.54 serious injuries per 100 crashes for the 1998-2005 Mazda MX5 / Eunos Roadster to a maximum of 7.66 serious injuries per 100 crashes for the 1982-1985 Holden Statesman/Caprice WB. Of the 374 individual vehicle models for which an aggressivity rating was calculated, 83 models had an aggressivity rating which was significantly less (better) than the overall average of 3.53 serious injuries per 100 tow-away crashes. These eighty-three vehicle models were distributed across market group classifications as follows:

Compact Four Wheel Drives	2
Commercial – Vans	2
Large cars	1
Medium cars	17
People mover	1
Light cars	18
Small cars	42

The models were, in order of increasing aggressivity:

- Mazda MX5 / Eunos Roadster (1998-2005)
- Mitsubishi Nimbus (1999-2003)
- Rover Quintet (1982-1986)
- Subaru Liberty / Legacy / Outback (2003-2006)
- Saab 9-5 (1998-2005)
- Mercedes Benz C-Class W203 (2000-2006)

- Volkswagen New Beetle (2000-2006)
- Suzuki Baleno / Cultus Crescent (1995-2002)
- Honda Acty (1983-1986)
- Honda Accord Euro (2003-2006)
- Mazda 6 (2002-2006)
- Daihatsu Sirion / Storia (1998-2004)
- Suzuki Grand Vitara (1999-2005)
- Alfa Romeo 33 (1983-1992)
- Mazda 121 / Autozam Review (1994-1996)
- Chrysler Neon (1996-1999)
- Daihatsu Pyzar (1997-2001)
- Mazda 121 Metro / Demio (1997-2002)
- Saab (1990 Series (1982-1992)
- Subaru Forester (1997-2002)
- Honda City (1983-1986)
- Subaru Sherpa / Fiori / 700 / Rex (1989-1992)
- Daihatsu Charade (1988-1992)
- Honda Civic (1982-1983)
- Honda Integra (1986-1988)
- Toyota Echo (1999-2005)
- Subaru Impreza (2001-2006)
- Mitsubishi Lancer / Mirage CC (1993-1995)
- Honda Accord (1982-1985)
- Ford / Mazda Laser / 323 (1999-2003)
- Mazda 323 / Familia / Lantis (1990-1993)
- Daihatsu Handivan (1982-1990)
- Mazda 323 / Familia / Lantis (1995-1998)
- Hyundai S Coupe (1990-1996)
- Holden / Suzuki Barina / Swift / Cultus (1989-1999)
- Toyota Cressida / Mark II (1989-1993)
- Honda Civic (1996-2000)
- Volkswagen Golf / Bora (1999-2004)
- Holden / Suzuki Barina / Swift / Cultus (1986-1988)
- Holden Gemini RB (1986-1987)
- Honda Accord (1991-1993)
- Toyota Starlet (1996-1999)
- Toyota / Holden Corolla / Nova (1994-1997)
- Toyota Corolla (1982-1984)
- Ford / Mazda Festiva WA / 121 (1987-1990)
- Mercedes Benz C-Class W202 (1995-2000)
- Daewoo Nubira (1997-2003)
- Subaru Liberty / Legacy / Outback (1999-2003)
- Daewoo Cielo (1995-1997)
- Holden Barina XC (2001-2006)
- Subaru 1800 / Leone / Omega / 4WD Wagon (1982-1993)
- Daihatsu Charade (1993-2000)
- Daihatsu Applause (1989-1999)
- Ford Festiva WD/WH/WF (1994-2001)
- Ford / Mazda Telstar / 626 / MX6 / Capella / Cronos (1992-1997)
- Mitsubishi Lancer / Mirage CA (1989-1990)
- Ford Capri (1989-1994)
- Nissan Bluebird (1993-1997)
- Nissan Pulsar (2000-2005)
- Daihatsu Charade (1982-1986)
- Holden Gemini (1982-1984)
- Holden Astra TS (1998-2006)
- Honda Civic / Shuttle (1988-1991)

- Mitsubishi Lancer / Mirage CE (1996-2003)
- Nissan Pulsar / Vector / Sentra (1996-1999)
- Ford Laser (1995-1997)
- Holden Barina SB (1995-2000)
- Hyundai Excel / Accent (1995-2000)
- BMW 3 Series E30 (1982-1991)
- Hyundai Excel (1990-1994)
- Toyota Corolla (2002-2006)
- Mitsubishi Mirage / Colt (1982-1988)
- Ford / Mazda Laser / 323 / Familia (1982-1988)
- Ford Laser (1991-1994)
- Toyota Corolla (1986-1988)
- Toyota Corolla (1998-2001)
- Toyota / Holden Corolla / Nova (1989-1993)
- Honda Civic (1992-1995)
- Nissan Bluebird (1982-1986)
- Subaru Liberty / Legacy (1989-1993)
- Ford / Mazda Telstar / 626 / MX6 / Capella (1983-1986)
- Holden / Nissan Astra / Pulsar / Langley (1984-1986)
- Holden / Nissan Astra / Pulsar / Vector / Sentra (1988-1990)

Similarly, 66 models had an aggressivity rating which was significantly greater (worse) than the overall average of 3.53 serious injuries per 100 tow away crashes. These sixty-six vehicle models were distributed across market group classifications as follows:

Medium Four Wheel Drives	8
Large Four Wheel Drives	8
Commercial – Van	7
Commercial – Ute	20
Large cars	12
Medium cars	5
People Mover	4
Small cars	2

The models were, in order of decreasing aggressivity:

- Holden Statesman/Caprice WB (1982-1985)
- Toyota Landcruiser Prado (1996-2003)
- Ford Bronco (1982-1987)
- Mazda (19929 / Sentia / Efini MS-9 (1992-1996)
- Volkswagen Caravelle / Transporter (1995-2004)
- Mercedes Benz Vito / Viano (1999-2006)
- Toyota Landcruiser (1982-1989)
- Toyota Supra (1982-1990)
- Ford Ford F-Series (1982-1992)
- Nissan Patrol / Safari (1982-1987)
- Toyota Landcruiser (1990-1997)
- Land Rover Range Rover (1982-1994)
- Holden / Isuzu Jackaroo / Bighorn (1998-2002)
- Nissan Patrol / Safari (1998-2004)
- Toyota Hiace / Liteace (1982-1986)
- Mercedes Benz MB100 / MB140 (1999-2004)
- Toyota Landcruiser (1998-2006)
- Toyota Hiace / Liteace (1990-1995)

- Nissan 300ZX / Fairlady Z (1990-1995)
- Kia Carnival (1999-2006)
- Toyota Hiace/Liteace (1987-1989)
- Jeep Wrangler (1996-2004)
- Toyota Hilux (2003-2004)
- Holden / Isuzu Jackaroo / Bighorn (1982-1991)
- Toyota 4Runner / Hilux (1982-1985)
- Nissan Exa (1983-1986)
- Nissan / Ford Patrol / Maverick / Safari (1988-1997)
- Nissan Pathfinder / Terrano (1988-1994)
- Holden / Isuzu Rodeo / Pickup (1989-1995)
- Holden Rodeo (1999-2002)
- Mitsubishi Starwagon / L300 (1983-1986)
- Toyota 4Runner/Hilux (1986-1988)
- Toyota Hiace/Liteace (1996-2004)
- Holden / Isuzu Jackaroo / Bighorn (1992-1997)
- Holden / Isuzu Rodeo / Pickup (1982-1985)
- Toyota Hilux (1998-2002)
- Ford Falcon Ute AU (2000-2002)
- Mitsubishi Pajero (1982-1990)
- Mitsubishi Triton MK (1996-2006)
- Mitsubishi Starwagon / Delica Spacegear (1995-1998)
- Holden Rodeo (1996-1998)
- Honda Legend (1986-1995)
- Holden WB Series (1982-1985)
- Nissan Navara (1992-1996)
- Toyota 4Runner/Hilux (1989-1997)
- Nissan Navara (1986-1991)
- Holden Rodeo (2003-2006)
- Nissan Navara (1997-2005)
- Holden Commodore Ute VR/VS (1994-2000)
- Volvo (19850/S70/V70/C70 (1992-2004)
- Mitsubishi Pajero (1992-1999)
- Mitsubishi Cordia (1983-1987)
- Holden Commodore VY/VZ Ute (2002-2006)
- Ford / Nissan Falcon Ute / XFN Ute (1982-1995)
- Mitsubishi Starwagon / Delica Starwagon (1987-1993)
- Toyota Tarago (1983-1989)
- Ford Falcon XE/XF (1982-1988)
- Ford Falcon EB Series II / Falcon ED (Apr 1992-1994)
- Holden Commodore VT/VX (1997-2002)
- Ford Falcon EA / Falcon EB Series I (1988-Mar 1992)
- Ford Falcon EF/EL (1994-1998)
- Ford Falcon AU (1998-2002)

Figures 11 to 20 display for each of the market groups the aggressivity ratings of vehicles together with their 90% confidence limits. Also displayed on each graph is a line representing the average aggressivity rating of 3.53% and two lines at 3.00% and 4.06% representing 15% better than average or 15% worse than average respectively.

Figure 11: *Aggressivity Ratings for Compact Four Wheel Drive vehicles (with 90% confidence limits)*

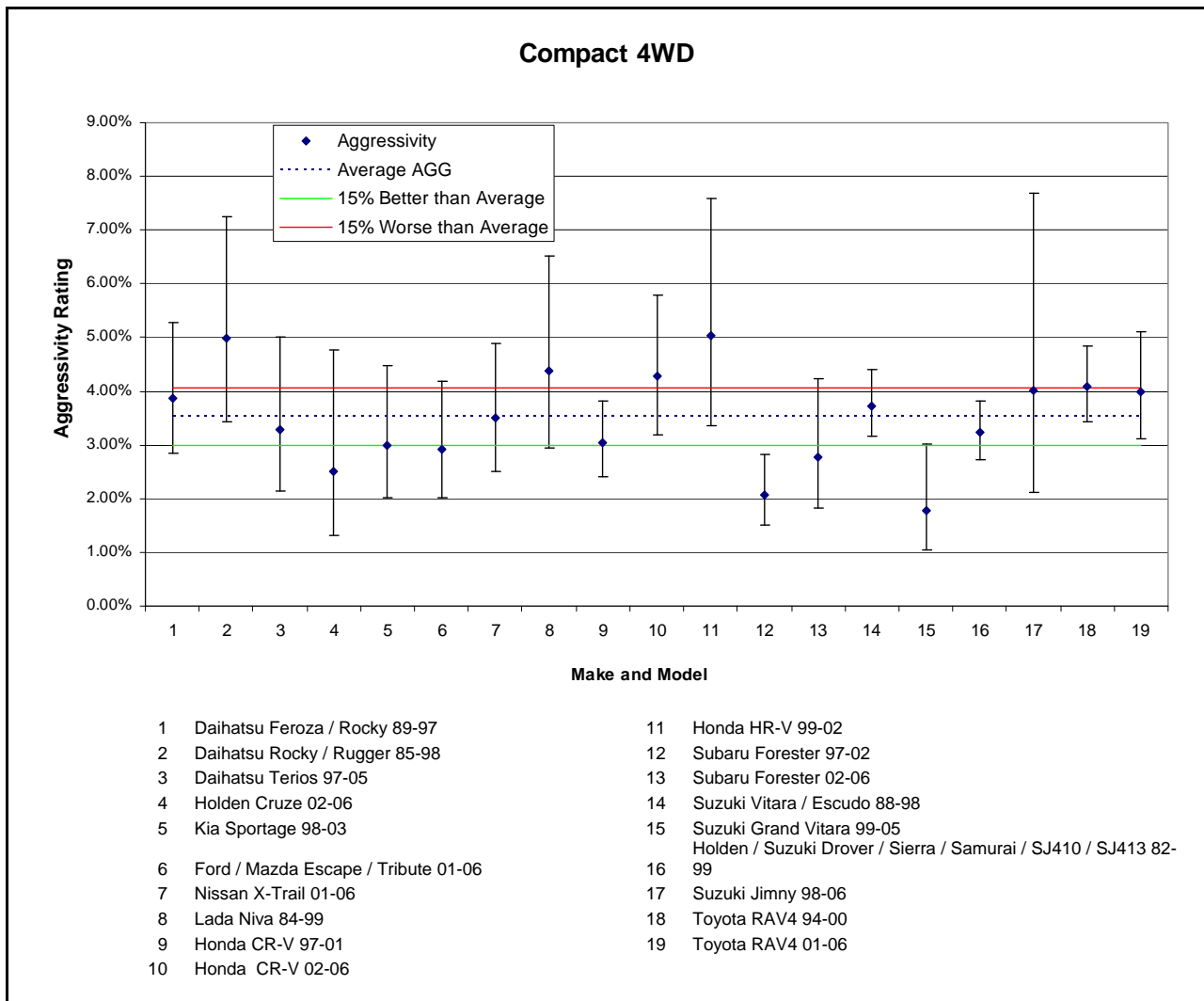


Figure 12: *Aggressivity Ratings for Medium Four Wheel Drive vehicles (with 90% confidence limits)*

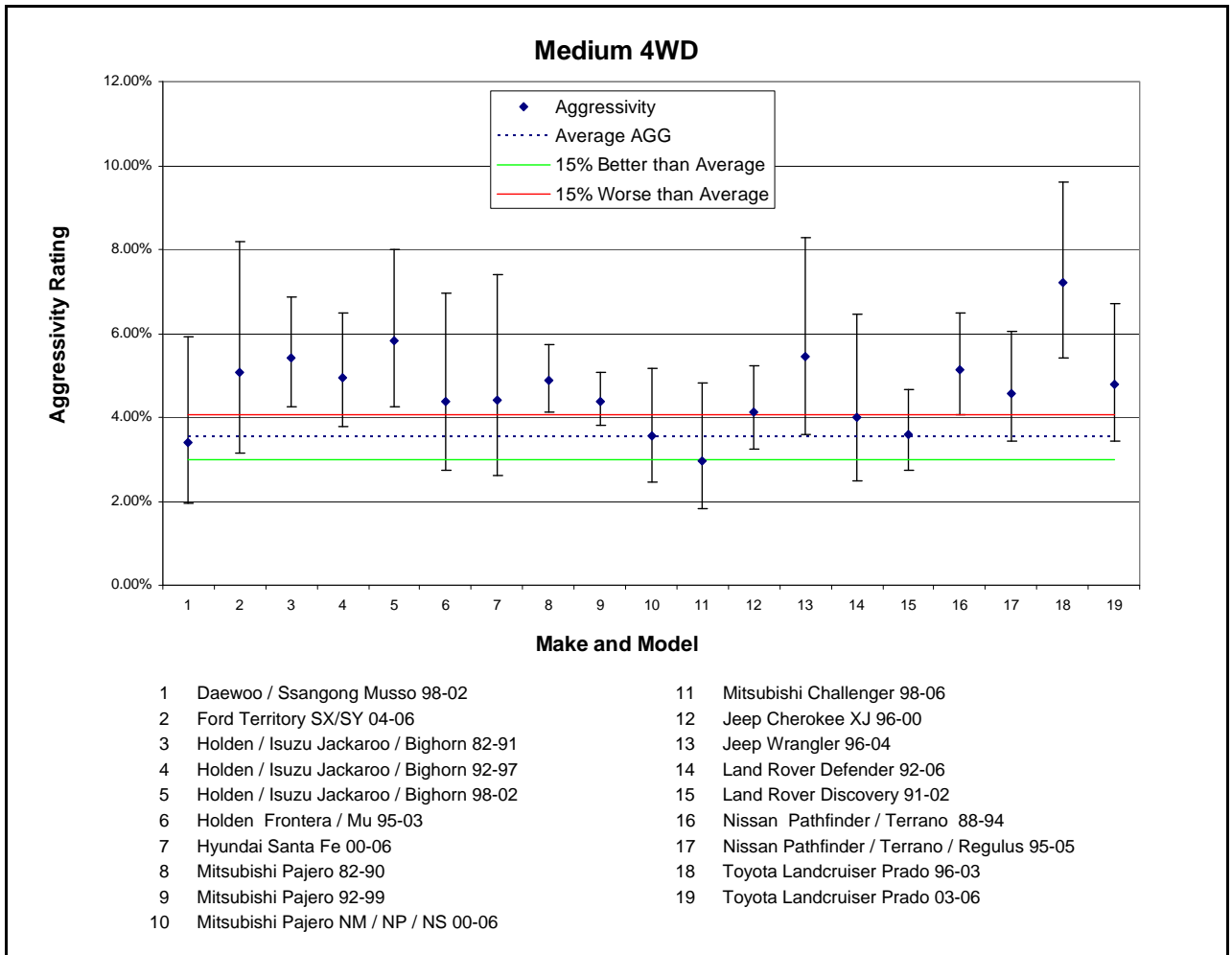


Figure 13: *Aggressivity Ratings for Large Four Wheel Drive vehicles (with 90% confidence limits)*

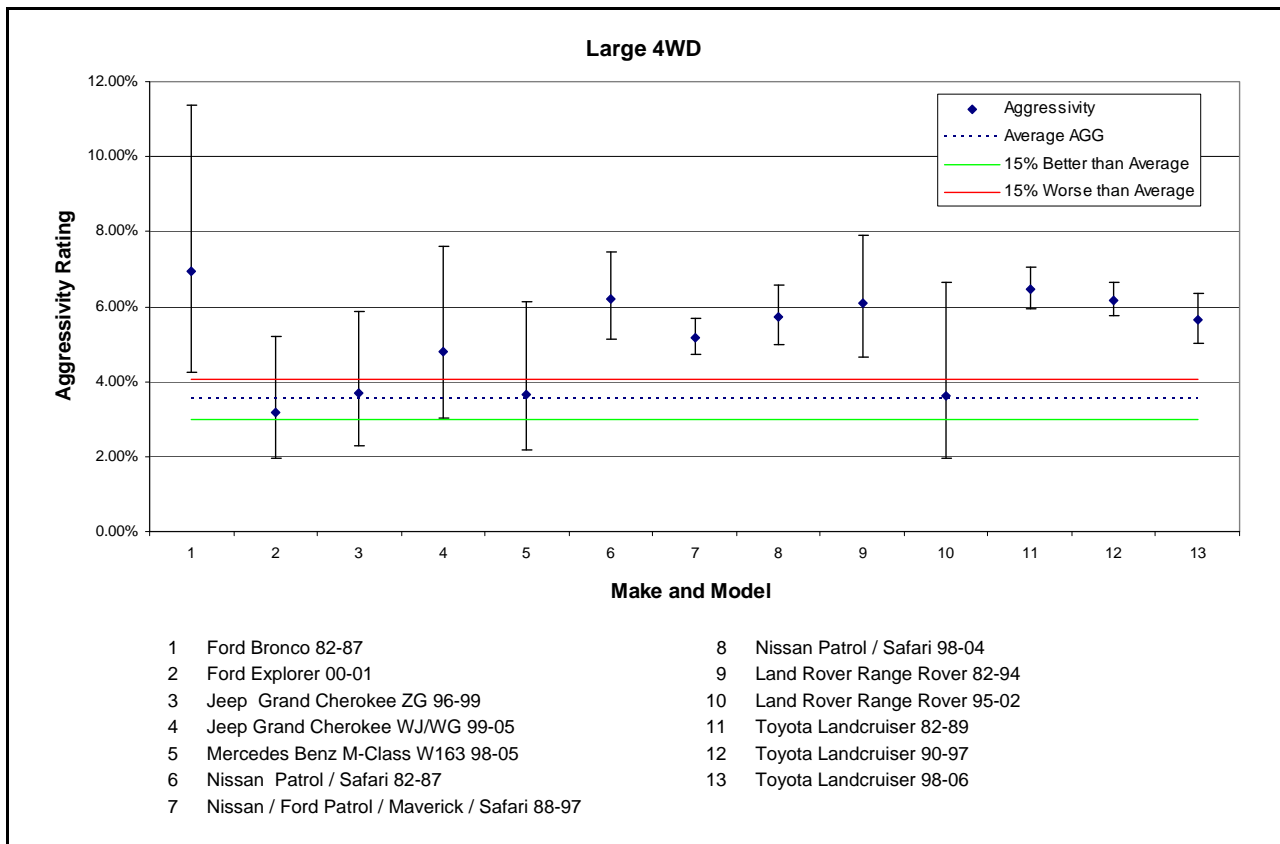


Figure 14: *Aggressivity Ratings for Commercial Vans (with 90% confidence limits)*

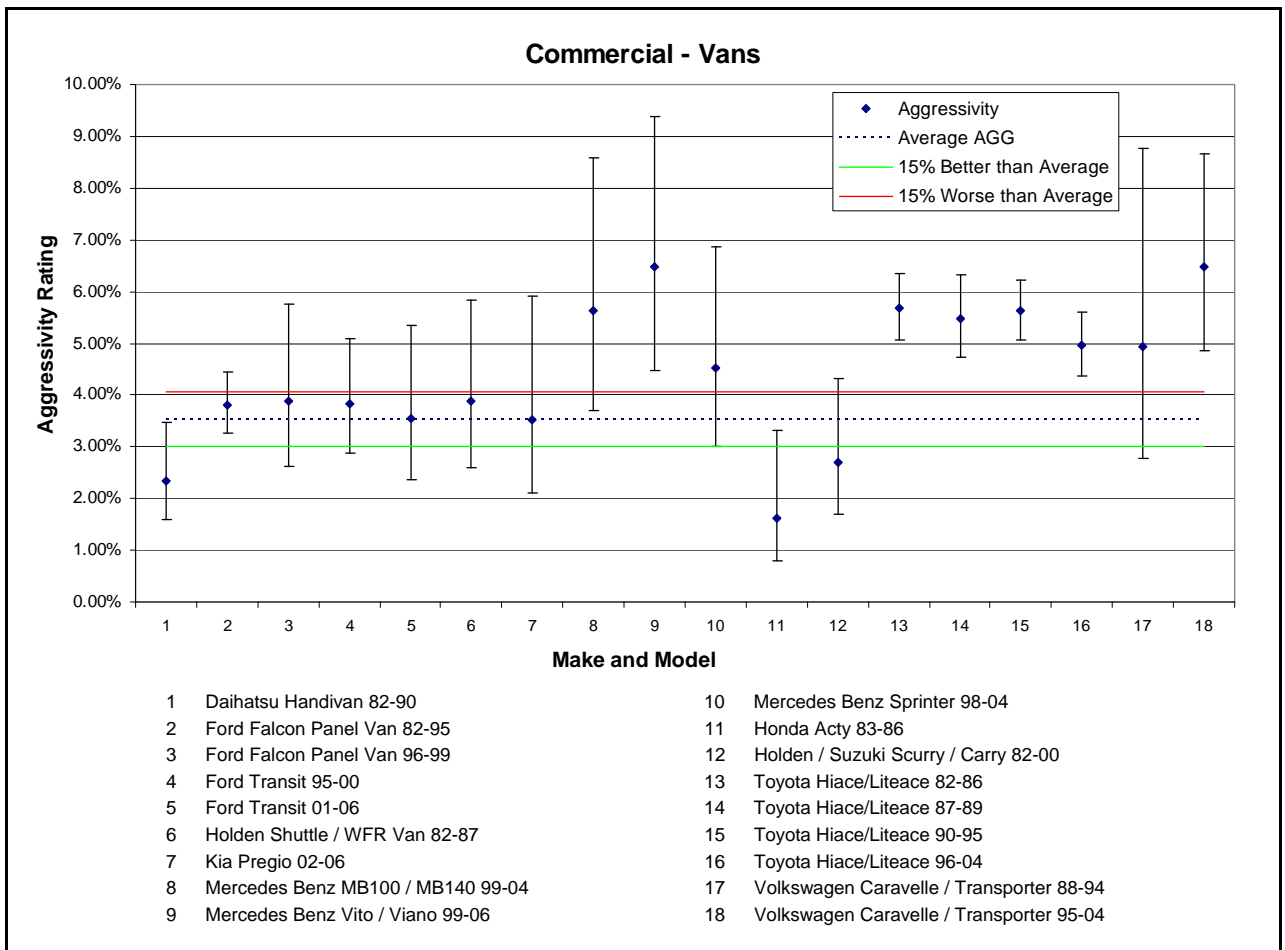


Figure 15: *Aggressivity Ratings for Commercial Utes (with 90% confidence limits)*

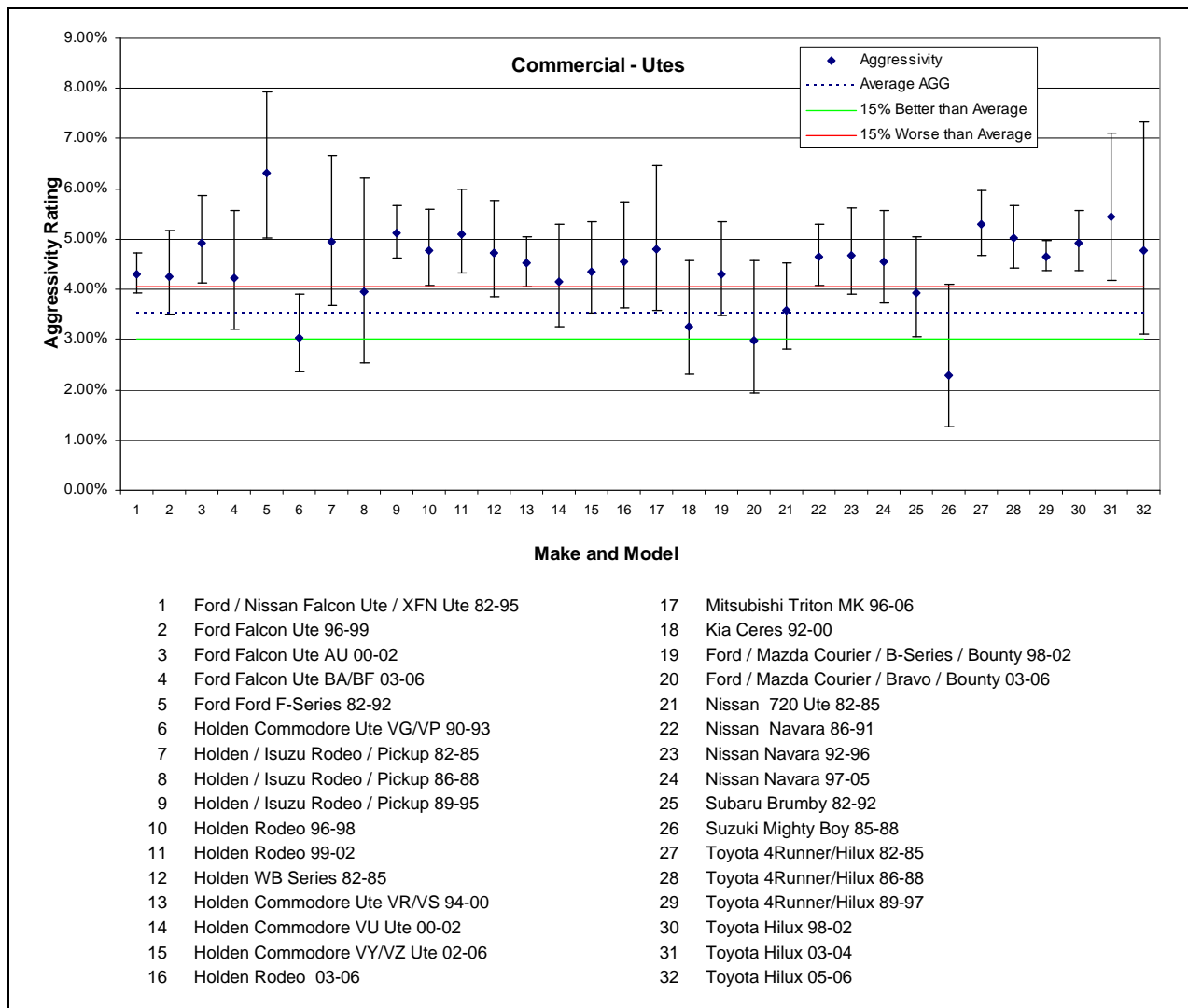


Figure 16: Aggressivity Ratings for Large cars (with 90% confidence limits)

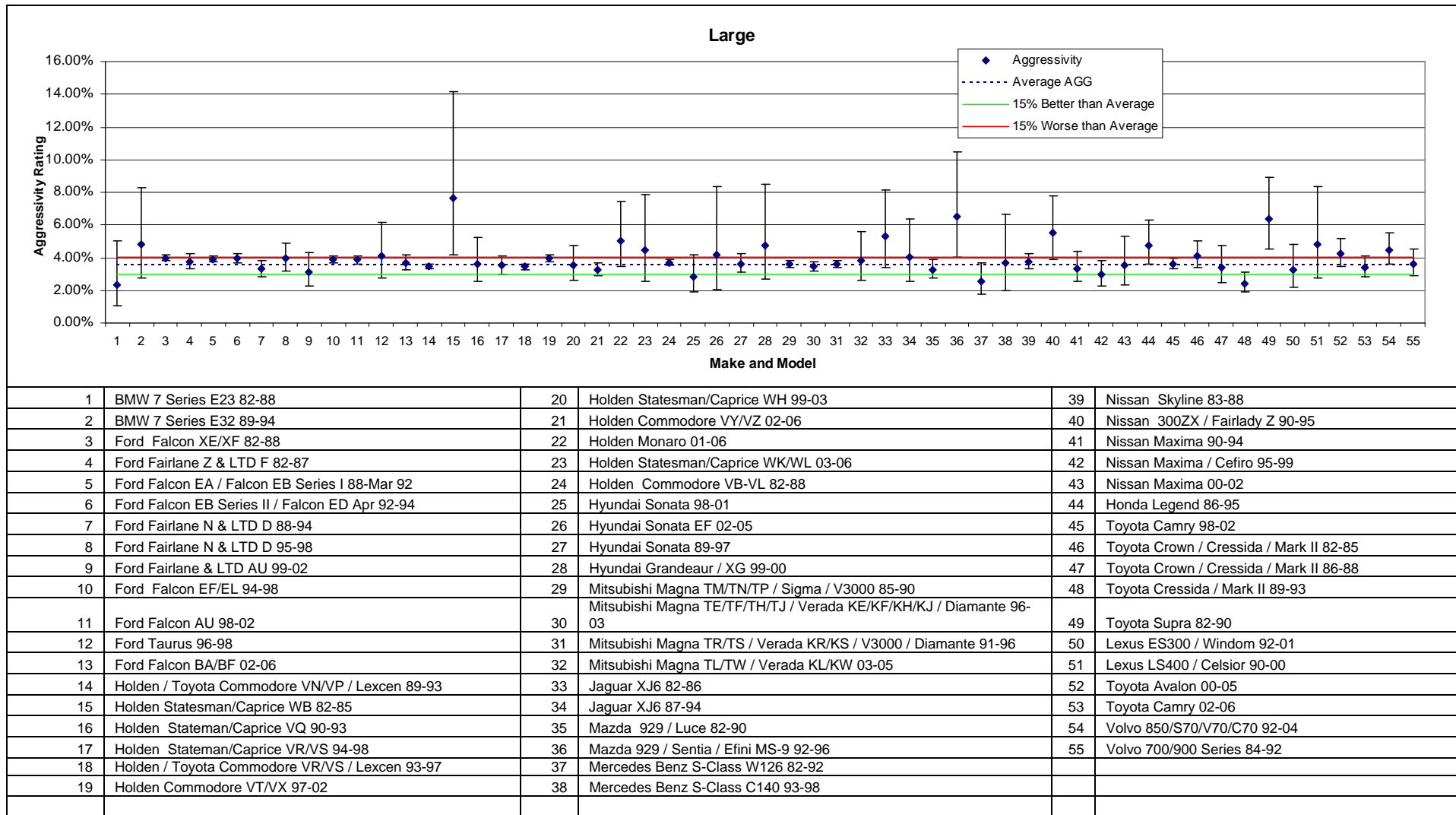


Figure 17: *Aggressivity Ratings for Medium cars (with 90% confidence limits)*

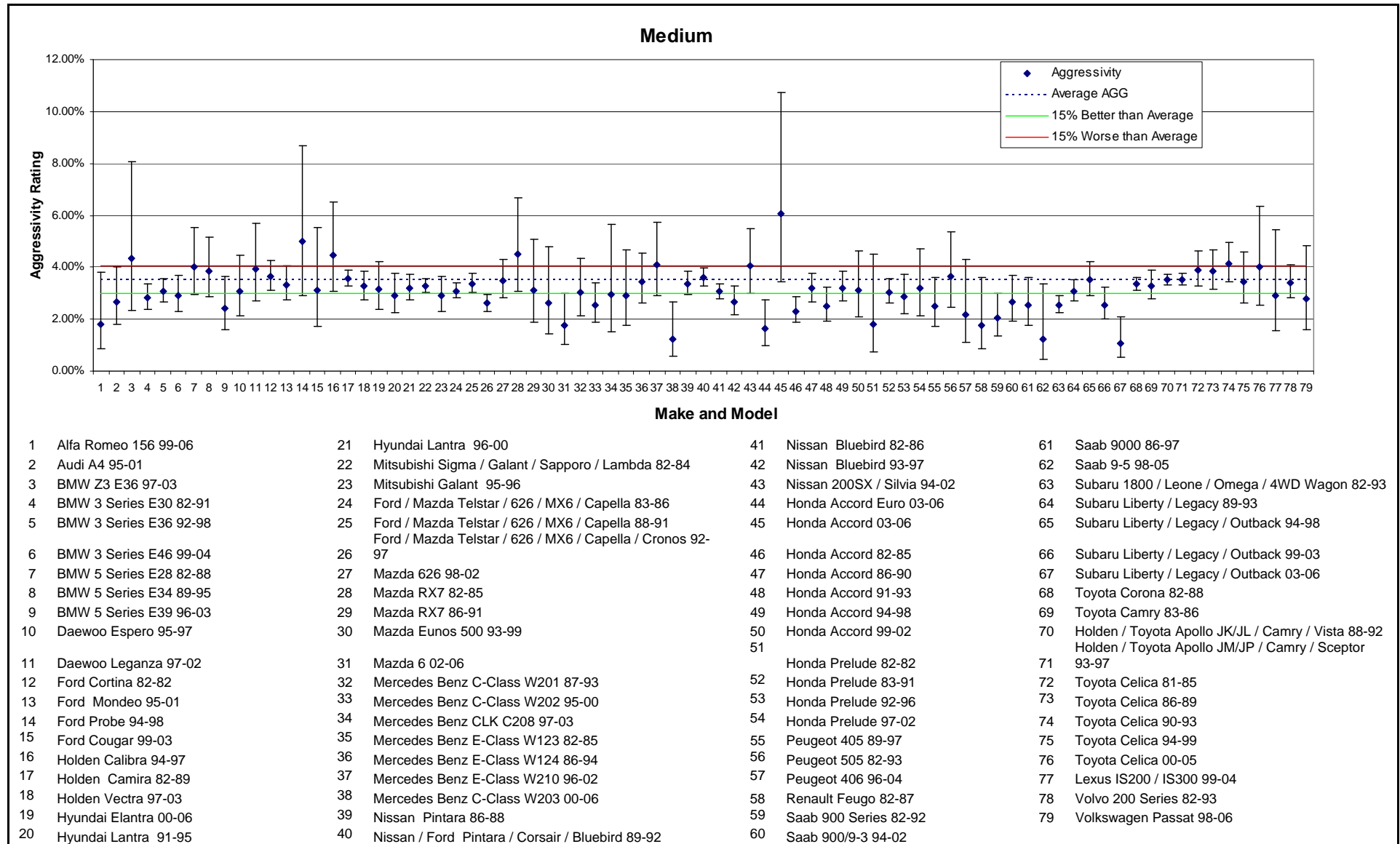


Figure 18: *Aggressivity Ratings for Small cars (with 90% confidence limits)*

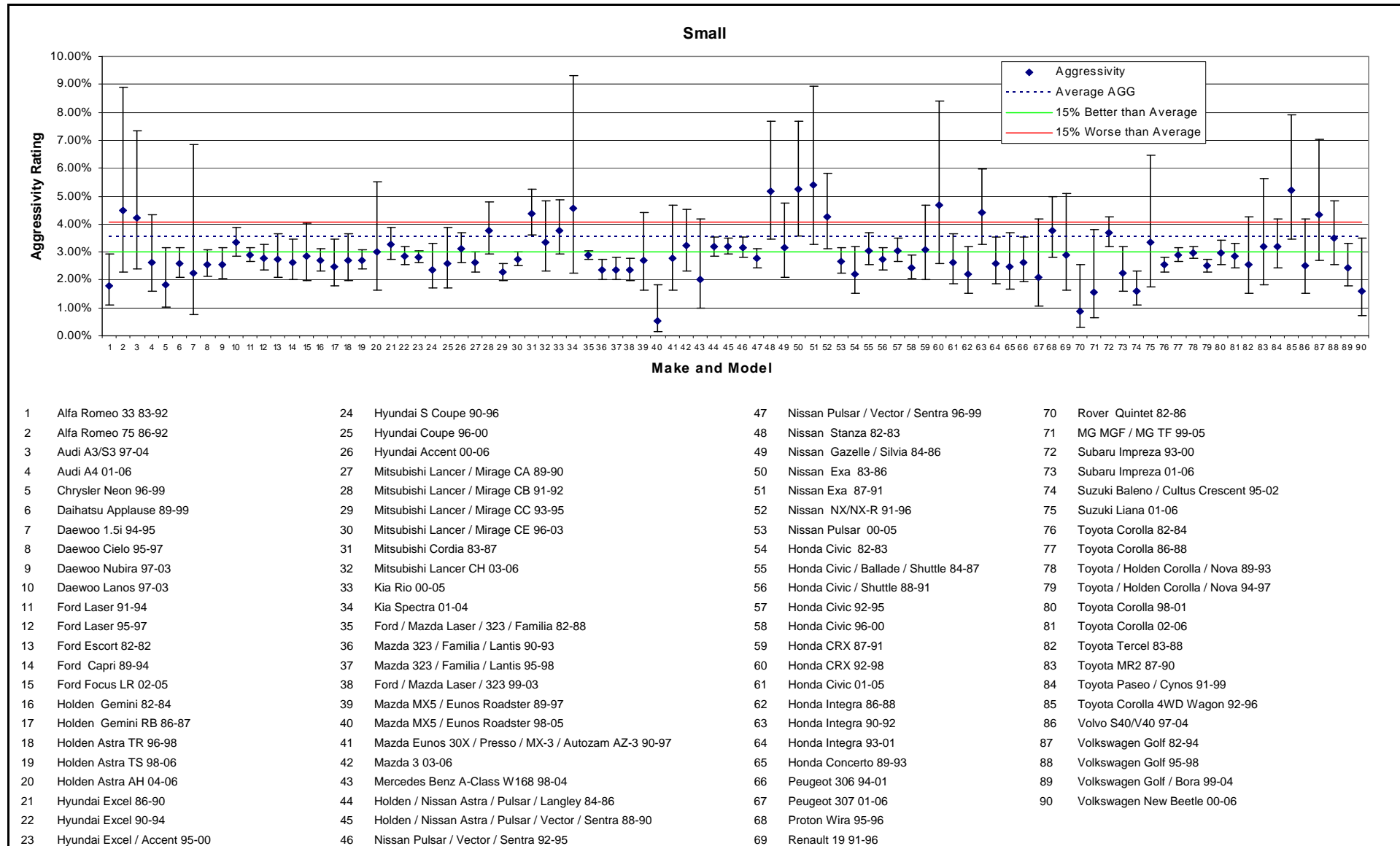


Figure 19: *Aggressivity Ratings for Light cars (with 90% confidence limits)*

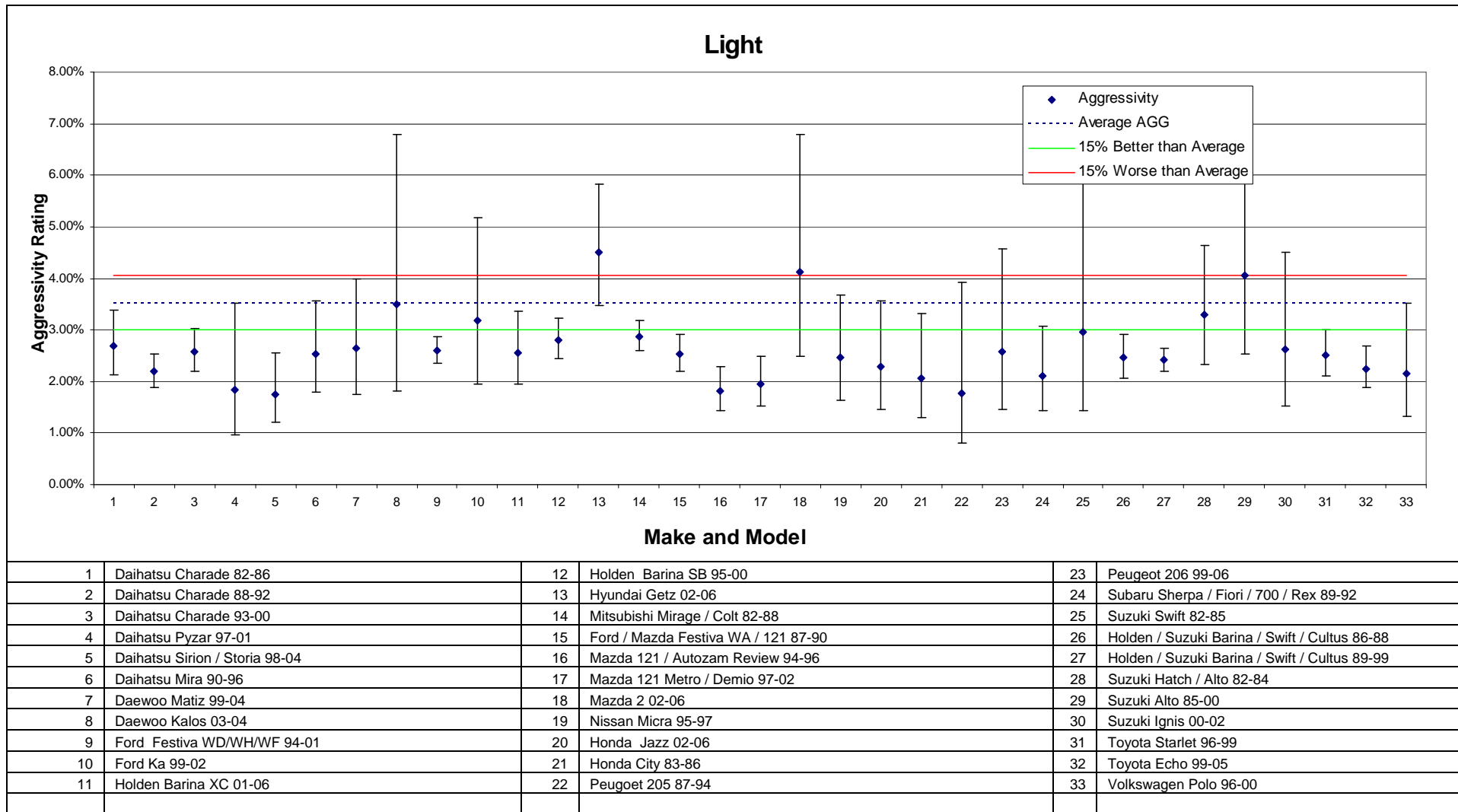
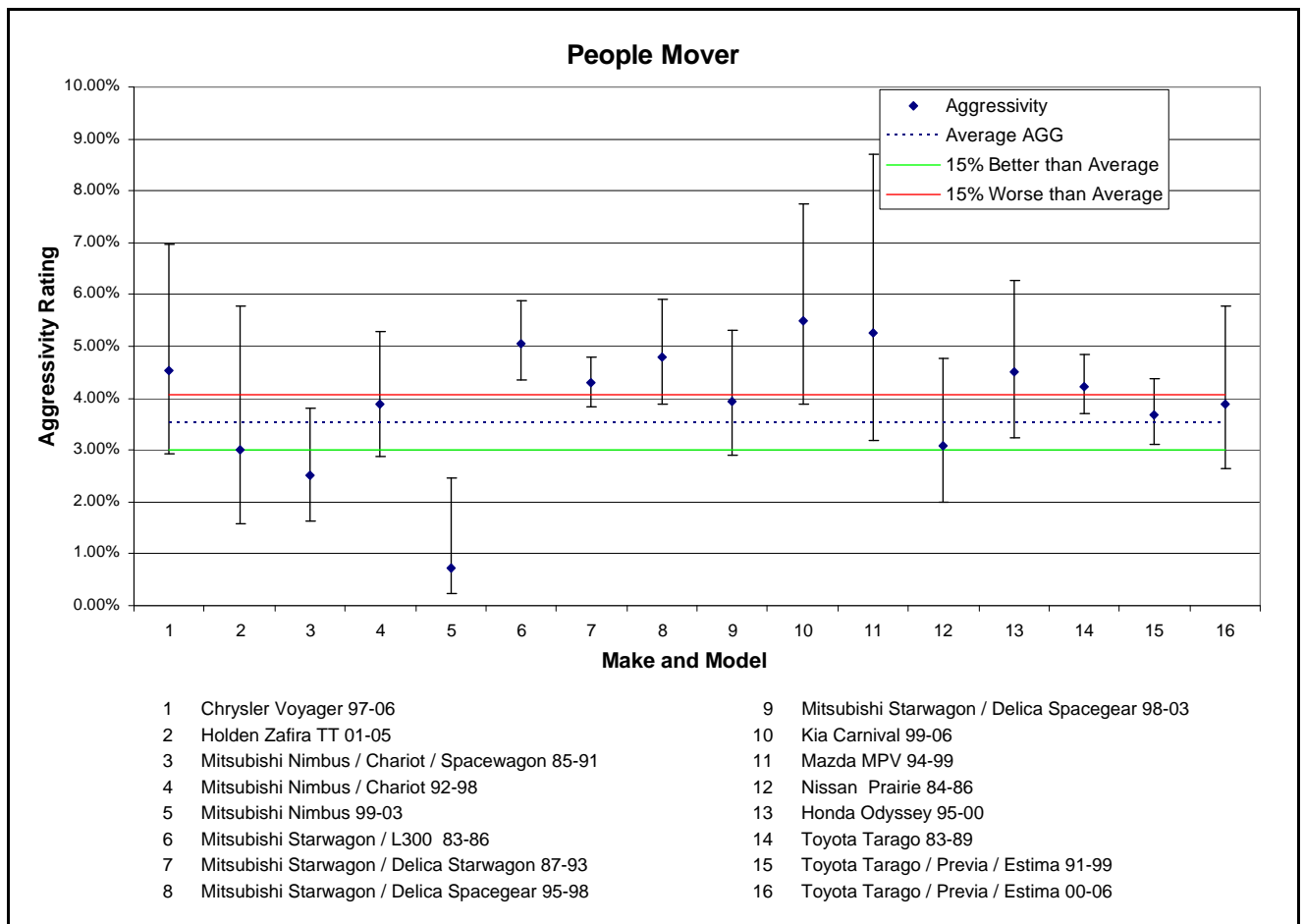


Figure 20: *Aggressivity Ratings for People Movers (with 90% confidence limits)*



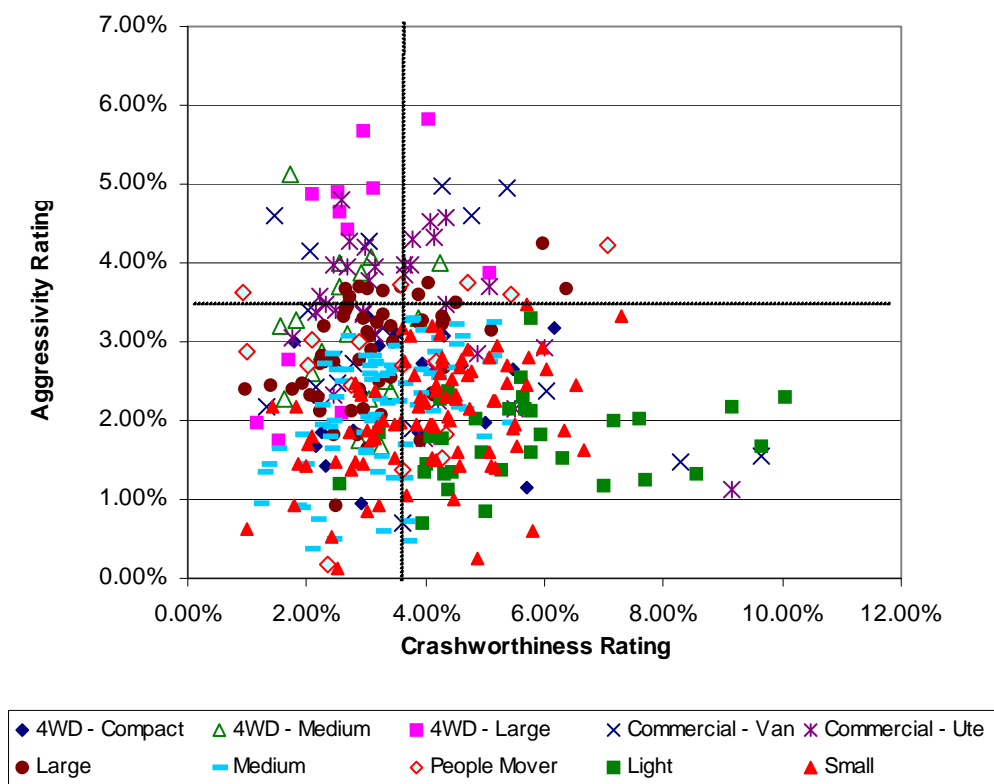
5.2.3 Relationship between Aggressivity and Crashworthiness

In assessing the British vehicle safety indices, Broughton (1996) found a strong inverse relationship between the indices for crashworthiness and aggressivity. Figure 21 shows the aggressivity measure plotted against crashworthiness for those vehicle models with both ratings. As Figure 21 shows, the inverse relationship between the two measures is not particularly strong. The dotted lines in Figure 21 represent the average aggressivity and crashworthiness of the vehicles assessed. Points in the lower left quadrant defined by the dotted lines represent vehicles with relatively low aggressivity as well as good (low) estimated crashworthiness. This area is populated by a number of small and medium vehicle models as well as some compact 4WDs. In contrast, vehicle models in the upper right quadrant of Figure 21 defined by the dotted lines show relatively poor crashworthiness and high aggressivity. There are a number of commercial vans and utilities in this quadrant along with some small vehicle models, people movers and compact 4WDs. The remaining two quadrants are populated with vehicles that only perform well on either crashworthiness or aggressivity measures. Light cars tend to have low aggressivity but also poor crashworthiness whilst large and medium 4WDs tend to exhibit converse traits.

Absence of a strong relationship between the measures of aggressivity and crashworthiness confirms that the two quantities considered here are measuring two different aspects of a vehicle's safety performance. Whilst one would expect some relationship between the two

measures given their common but opposite relationships with mass (Broughton, 1996; Cameron et al 1998), the lack of a strong relationship suggests vehicle mass is only playing a small part in aggressivity rating relative to vehicle total safety design. The independence of these two measures does not seem to have been achieved to the same degree under other systems (Broughton, 1996).

Figure 21: *Estimated Vehicle Aggressivity towards Other Drivers and Unprotected Road Users vs. Crashworthiness Rating*



5.3 Vehicle Total Secondary Safety Rating

5.3.1 Injury Risk

Total secondary safety injury risk was estimated from the data on 3,438,401 road users involved in tow-away crashes in New South Wales, Queensland and Western Australia during 1987-2006 (as described in Section 2). This data set is referred to as the "involved road users". Because of missing values in one or more of the covariates road user sex and age, speed zone and number of vehicles involved in the crash amongst the 3,438,401 involved road users and vehicle models of interest, the final file used for analysis consisted of the 2,562,612 road users for which all the covariate data was complete. Of these road users 410,168 were injured. The "covariate" model for injury risk was determined from the variables described in Section 4.3.

The following terms were significantly associated with injury risk and were included in the logistic model:

Base effect terms	First order interactions	Second order interactions
Sex	Speedzone*Crashtyp	Age*Speedzone*Nveh
Speedzone	Sex*Age	Sex*Year*Nveh
Age	State*Year	Speedzone*State*Crashtyp
Nveh	Year*Nveh	Age*State*Crashtyp
State	Age*State	Sex*State*Year
Year (of crash)	Age*Crashtyp	Sex*State*Crashtyp
Crashtyp	Speedzone*State	State*Year*Nveh
	Sex*Crashtyp	Age*State*Year
	State*Crashtyp	Speedzone*State*Year
	Age*Speedzone	Age*Sex*Crashtyp
	Sex*State	Speedzone*Year*Nveh
	Age*Year	Age*Speedzone*State
	Sex*Year	Age*Speedzone*Year
	Speedzone*Year	
	State*Nveh	
	Speedzone*Nveh	
	Age*Nveh	

No other term significantly improved the fit of the logistic model.

The overall (average) injury risk for involved light vehicle drivers or unprotected road users in tow-away crashes in NSW, Western Australia and Queensland was 16.01 per 100 involved. In other words, the average probability that a light vehicle driver or unprotected road user was injured in a tow-away crash involving a light passenger vehicle in NSW, Western Australia or Queensland was 16.01%.

Appendix 6 gives the estimates of total secondary safety injury risk derived by logistic regression for 456 individual car models. Injury risk ranged from 6.21% for the 1986-1994 Citroen BX to 32.08% for the 1982-1990 Daihatsu Hi Jet.

An estimate of the variability in the injury risk estimates was calculated from the width of the corresponding 95% confidence intervals. Individual confidence interval widths ranged from 0.58% for the 1989-1993 Holden Commodore VN/VP and Toyota Lexcen and 1993-1997 Holden Commodore VR/VS and Toyota Lexcen to 16.84% for the 1985-1989 Subaru Vortex. The small variability for the Commodore/Toyota VN/VP/Lexcen and Commodore/Toyota VR/VS/Lexcen sedans is not surprising since there were more cars of these models than any others in the data set and precision is known to improve with increasing sample size.

The estimated injury risk for each market group is also given in Appendix 6. The medium four wheel drive market group had the lowest injury risk (14.42%) and the light car market group had the highest (18.03%).

5.3.2 Injury Severity

The data on "injured road users" covered 597,782 road users of 1982-2006 model vehicles who were injured in crashes in Victoria, NSW, Western Australia, Queensland or New Zealand during 1987-2006 (as described in Section 2). Because of missing values in one or more of the covariates amongst the 597,782 injured road users, the final file used for analysis consisted of the 546,160 road users for which all the covariate data was complete. Of these road users

117,058 were seriously injured. The "covariate" model for injury severity was determined from the variables described in Section 4.3.

The following terms were significantly associated with injury severity and were included in the logistic model:

Base effect terms	First order interactions	Second order interaction
Sex	Age*Sex	Speedzone*State*Year
Speedzone	Age*Crashtype	Age*Sex*State
Age	State*Nveh	State*Year*Crashtype
State	Speedzone*State	Age*State*Year
Year	Age*State	Age*State*Nveh
Crashtype	Age*Nveh	Sex*Speedzone*State
Nveh	State*Year	Speedzone*State*Crashtype
	Speedzone*Year	
	Speedzone*Crashtype	
	Sex*State	
	Sex*Speedzone	
	Age*Year	
	Year*Crashtype	
	State*Crashtype	

No other term significantly improved the fit of the logistic model.

The overall (average) injury severity for injured light vehicle drivers or unprotected road users in the data analysed was 21.43 per 100 involved. In other words, the probability that a road user injured in a crash was severely injured was 21.43%. Appendix 6 gives the estimates of injury severity derived by logistic regression for 456 individual car models, or sets of combined models. Of the cars analysed, injury severity ranged from 7.94% for the 2004-2006 Volkswagen Golf/Jetta to 47.07% for the 1982-1984 Alfa Romeo GTV.

An estimate of the variability in the estimates of injury severity was calculated from the width of the corresponding 95% confidence intervals. Individual confidence interval widths ranged from 1.44% for the 1982-88 Ford Laser and Mazda 323 / Familia to 43.60% for the 1985-1988 Alfa Romeo 90.

The estimated injury severity for each market group is also given in Appendix 6. Compact four wheel drive vehicles performed best with respect to injury severity, having the lowest average injury severity of 20.17%. The large four wheel drive car market group had the highest average injury severity of 24.36%.

5.3.3 Total secondary safety index

The total secondary safety index for each car model and market group was obtained by multiplying the individual injury risk and injury severity estimates. Because each of the two components had been adjusted for the confounding factors, the resultant total secondary safety index was also adjusted for the influence of these factors.

Total secondary safety indices were obtained for each individual model and market group after adjusting for the confounding factors.

Appendix 6 gives the total secondary safety secondary index and the associated 90% confidence intervals for each of the 456 car models included in the analyses. Each rating is expressed as a percentage, representing the number of road users killed or admitted to hospital per 100 light vehicle drivers or unprotected road users involved in a tow-away focus crash. Overall ratings for the market groups are also given.

Each total secondary safety rating is an *estimate* of the true risk of a light vehicle driver or unprotected road user being killed or admitted to hospital in a tow-away crash and, as such, each estimate has a level of uncertainty about it. This uncertainty is indicated by the confidence limits in Appendix 6. There is 95% probability that the confidence interval will cover the true risk of serious injury (death or hospital admission) to the light vehicle driver or unprotected road user involved in a crash with the particular model of vehicle.

Table 6 gives a summary of the estimated ratings for each of the 10 defined vehicle market groups. It shows the estimated injury risk and severity components, and the resulting total secondary safety index with upper and lower 95% confidence limits, and the width of the 95% confidence limit. The relative ranking of the total secondary safety index on each market group is also given in Table 6 although this should be interpreted with care as there is not necessarily a statistically significant difference between the average total secondary safety of vehicle market groups with different rankings. Statistical significance in average total secondary safety between market groups at the 5% level is only achieved when the 95% confidence limits do not overlap. Similar comments apply to interpreting results in Appendix 6.

Table 6: *Estimated Vehicle Total Secondary Safety by Market Grouping*

Market Group	Injury risk (%)	Injury severity (%)	Total Secondary Safety Index*	Overall rank order	Lower 95% Confidence limit	Upper 95% Confidence limit	Width of Confidence interval
Overall Average	16.01	21.43	3.43				
COMPACT FOUR WHEEL DRIVE	16.19	20.17	3.27	4	3.12	3.42	0.30
MEDIUM FOUR WHEEL DRIVE	14.42	21.21	3.06	1	2.90	3.22	0.32
LARGE FOUR WHEEL DRIVE	14.80	24.36	3.61	8	3.48	3.73	0.25
COMMERCIAL - VAN	17.20	21.74	3.74	9	3.59	3.89	0.30
COMMERCIAL - UTE	15.39	22.67	3.49	6	3.41	3.57	0.17
LARGE	15.28	20.89	3.19	2	3.14	3.24	0.09
MEDIUM	15.66	20.51	3.21	3	3.16	3.27	0.11
PEOPLE MOVERS	16.83	21.39	3.60	7	3.45	3.76	0.31
LIGHT	18.03	21.19	3.82	10	3.73	3.91	0.18
SMALL	16.55	20.43	3.38	5	3.33	3.43	0.11

- Serious injury rate per 100 road users involved

Table 6 shows medium four wheel drives to have the highest total secondary safety with an average of 3.06 light vehicle drivers or unprotected road users being killed or seriously injured for every 100 tow-away crashes. Similarly, light cars have the lowest total secondary safety with an average total secondary safety index of 3.82.

5.3.4 Comparisons with the All Model Average Rating

Based on the average injury risk and injury severity values in the data used to compute the index, the average total secondary safety of all vehicles appearing in the data was 3.43% (3.43

serious road user injuries per 100 crash involvements). Computing the all model average in this way gives more weight to vehicles with greater representation in the crash data. Another way of computing the all model average rating is to simply take an un-weighted numerical average of the 456 vehicles with a sufficiently accurate total secondary safety index to be published. This method gives equal weight to each vehicle in the average. For the 456 vehicles rated in this study, the un-weighted numerical average total secondary safety is 3.57 (3.57 serious injuries per 100 crash involvements).

Ultimately the point against which indices for individual vehicles are compared is arbitrary, whether it is either of the averages described above or some other point. For the purpose of comparing the total secondary safety index to an average value in this study, the un-weighted numerical average of all vehicles included in the analysis (3.57) was used. This was chosen as it gave better distribution of the vehicles into the five rating categories used for presentation of the index for consumer information (see Section 5.4). Any other comparison value could be used with equal legitimacy. However, it should be noted that the criteria for exclusion of the index for a particular vehicle from presentation are dependent on the average chosen so a change in the comparison average total secondary safety will potentially change the selection of vehicles for which ratings are presented.

90% confidence limits were used to judge whether the true risk of death or hospitalisation associated with a specific model car involved in a tow-away crash is really different from the defined average for all models, i.e. 3.57 per 100 involved road users. An upper limit below the average is indicative of superior performance, whereas a lower limit above the average suggests inferior performance. Other models also have total secondary safety indices at the low or high end of the scale, but their confidence limits overlap the all model average. Although such models may also have superior or inferior total secondary safety characteristics, the database did not contain sufficient numbers of these models for the data to represent scientific evidence that this is the case.

In terms of statistical significance, it should be noted that classifying vehicles as having inferior or superior total secondary safety compared to the defined average means only that vehicle models with 'superior' total secondary safety have statistically significantly better total secondary safety than vehicles in the defined 'inferior' group. It is possible that vehicles within the inferior and superior categories also had statistically significant differences in total secondary safety. This could be assessed by examining overlap in the statistical confidence limits for any pair wise comparison of two vehicles. One of the main points in defining groups of vehicles with inferior and superior performance is to show that the analysis can differentiate with statistical precision total secondary safety between groups of vehicles within the rated vehicle population.

Eighty-five models had an index representing evidence of superior total secondary safety because their upper 90% confidence limits were less than the average rating. These were distributed across market group classifications as follows:

Compact Four Wheel Drives	7
Medium Four Wheel Drives	4
Large Four Wheel Drives	3
Commercial – Ute	2
Commercial – Vans	1
Large cars	17

Medium cars	29
People Movers	3
Light cars	3
Small cars	23

The specific models were (in order of estimated risk of serious injury in a crash, from lowest to highest):

- Volkswagen Golf / Jetta (2004-2006)
- Citroen BX (1986-1994)
- Jaguar S-Type (1999-2006)
- Honda S2000 (1999-2006)
- Volkswagen New Beetle (2000-2006)
- Jeep Cherokee KJ (2001-2004)
- Mitsubishi Nimbus (1999-2003)
- BMW X5 (2001-2006)
- Peugeot 307 (2001-2006)
- Peugeot 406 (1996-2004)
- Mazda MX5 / Eunos Roadster (1998-2005)
- Saab 9-5 (1998-2005)
- Ford Explorer (2001-2005)
- Mercedes Benz M-Class W163 (1998-2005)
- Mazda 6 (2002-2006)
- Holden Vectra ZC (2003-2005)
- Mercedes Benz C-Class W203 (2000-2006)
- Honda Accord Euro (2003-2006)
- Saab (199000 (1986-1997)
- Volkswagen Passat (1998-2006)
- Lexus IS200 / IS300 (1999-2004)
- Subaru Forester (1997-2002)
- Ford Transit (2001-2006)
- Saab (19900/9-3 (1994-2002)
- BMW 5 Series E39 (1996-2003)
- Mitsubishi Pajero NM / NP / NS (2000-2006)
- Audi A4 (2001-2006)
- Chrysler Neon (1996-1999)
- Kia Carnival (1999-2006)
- Volkswagen Golf / Bora (1999-2004)
- Subaru Impreza (2001-2006)
- Mazda 3 (2003-2006)
- Volkswagen Polo (1996-2000)
- Peugeot 306 (1994-2001)
- Honda CR-V (1997-2001)
- Subaru Liberty / Legacy / Outback (1999-2003)
- Subaru Forester (2002-2006)
- Kia Sportage (1998-2003)
- Subaru Liberty / Legacy / Outback (2003-2006)
- Toyota Landcruiser Prado (2003-2006)
- Audi A4 (1995-2001)
- Suzuki Grand Vitara (1999-2005)
- Mercedes Benz C-Class W202 (1995-2000)
- Honda Accord (1999-2002)
- Holden Statesman/Caprice WH (1999-2003)
- Mitsubishi Magna TL/TW / Verada KL/KW (2003-2005)
- Land Rover Discovery (1991-2002)
- BMW 3 Series E46 (1999-2004)

- Peugeot 505 (1982-1993)
- Toyota Cressida / Mark II (1989-1993)
- Holden Commodore VY/VZ (2002-2006)
- Ford Falcon Ute BA/BF (2003-2006)
- Honda CR-V (2002-2006)
- Toyota Camry (2002-2006)
- Ford Focus LR (2002-2005)
- Honda Accord (1991-1993)
- Ford / Mazda Escape / Tribute (2001-2006)
- Ford Fairlane & LTD AU (1999-2002)
- Suzuki Baleno / Cultus Crescent (1995-2002)
- Ford Mondeo (1995-2001)
- Holden Astra TS (1998-2006)
- Peugeot 405 (1989-1997)
- Holden Astra TR (1996-1998)
- Ford / Mazda Laser / 323 (1999-2003)
- Ford Falcon BA/BF (2002-2006)
- Nissan Bluebird (1993-1997)
- Holden Barina XC (2001-2006)
- Volvo 700/900 Series (1984-1992)
- Holden Vectra (1997-2003)
- Toyota Corolla (1998-2001)
- Holden Rodeo (2003-2006)
- Toyota Tarago / Previa / Estima (1991-1999)
- Honda Civic (1996-2000)
- Toyota Corolla (2002-2006)
- Ford Fairlane N & LTD D (1988-1994)
- Ford / Mazda Telstar / 626 / MX6 / Capella / Cronos (1992-1997)
- Mazda 121 Metro / Demio (1997-2002)
- Daewoo Nubira (1997-2003)
- BMW 3 Series E30 (1982-1991)
- Subaru Liberty / Legacy / Outback (1994-1998)
- Volvo 200 Series (1982-1993)
- Mitsubishi Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante (1996-2003)
- Mazda 323 / Familia / Lantis (1990-1993)
- Ford Falcon AU (1998-2002)
- BMW 3 Series E36 (1992-1998)
- Toyota Camry (1998-2002)
- Holden / Toyota Commodore VR/VS / Lexcen (1993-1997)
- Subaru Liberty / Legacy (1989-1993)
- Holden Commodore VT/VX (1997-2002)
- Ford Falcon EF/EL (1994-1998)
- Toyota / Holden Corolla / Nova (1994-1997)
- Mitsubishi Magna TR/TS / Verada KR/KS / V3000 / Diamante (1991-1996)

Eighty-nine models had indices representing evidence of inferior total secondary safety because their lower confidence limits were greater than the average rating. These were distributed across market group classifications as follows:

Compact Four Wheel Drives	3
Medium Four Wheel drives	1
Large Four Wheel Drives	4
Commercial – Vans	6
Commercial – Utes	11
Large cars	9

Medium cars	10
People Movers	3
Light cars	18
Small cars	24

The specific models were (in order of estimated risk of serious road user injury in a crash, from highest to lowest):

- Daihatsu Hi-Jet (1982-1990)
- Alfa Romeo GTV (1982-1984)
- Suzuki Alto (1985-2000)
- Holden Statesman/Caprice WB (1982-1985)
- Suzuki Hatch / Alto (1982-1984)
- Holden / Suzuki Scurry / Carry (1982-2000)
- Lada Samara (1988-1990)
- Daihatsu Mira (1990-1996)
- Mitsubishi Lancer CE / CG (2002-2003)
- Nissan Exa (1983-1986)
- Suzuki Mighty Boy (1985-1988)
- Daewoo Tacuma (2000-2004)
- Alfa Romeo Alfasud (1982-1984)
- Daihatsu Handivan (1982-1990)
- Proton Satria (1997-2006)
- Mitsubishi Starion (1982-1987)
- Subaru Sherpa / Fiori / 700 / Rex (1989-1992)
- Suzuki Swift (1982-1985)
- Mitsubishi Starwagon / L300 (1983-1986)
- Daihatsu Rocky / Rugger (1985-1998)
- Daihatsu Charade (1982-1986)
- Toyota Supra (1982-1990)
- Ford Bronco (1982-1987)
- Honda City (1983-1986)
- Jaguar XJ6 (1982-1986)
- Holden / Suzuki Barina / Swift / Cultus (1986-1988)
- Toyota Hiace/Liteace (1982-1986)
- Nissan NX/NX-R (1991-1996)
- Hyundai Getz (2002-2006)
- Toyota MR2 (1987-1990)
- Mitsubishi Cordia (1983-1987)
- Mazda RX7 (1982-1985)
- Honda CRX (1987-1991)
- Subaru Brumby (1982-1992)
- Toyota Landcruiser (1982-1989)
- Hyundai Excel (1986-1990)
- Toyota Tarago (1983-1989)
- Holden WB Series (1982-1985)
- Toyota Hiace/Liteace (1987-1989)
- Honda Civic / Ballade / Shuttle (1984-1987)
- Holden / Nissan Astra / Pulsar / Langley (1984-1986)
- Nissan Micra (1995-1997)
- Nissan Gazelle / Silvia (1984-1986)
- Kia Ceres (1992-2000)
- Holden Camira (1982-1989)
- Mitsubishi Mirage / Colt (1982-1988)
- Holden / Isuzu Rodeo / Pickup (1982-1985)
- Holden / Suzuki Drover / Sierra / Samurai / SJ410 / SJ413 (1982-1999)

- Toyota Hiace/Liteace (1990-1995)
- Holden / Isuzu Rodeo / Pickup (1989-1995)
- Daihatsu Charade (1993-2000)
- Ford / Mazda Festiva WA / 121 (1987-1990)
- Daihatsu Charade (1988-1992)
- Mitsubishi Lancer / Mirage CB (1991-1992)
- Mitsubishi Pajero (1982-1990)
- Toyota 4Runner/Hilux (1982-1985)
- Holden Gemini RB (1986-1987)
- Ford / Mazda Laser / 323 / Familia (1982-1988)
- Ford Festiva WD/WH/WF (1994-2001)
- Hyundai Excel (1990-1994)
- Ford Cortina (1982-1982)
- Toyota 4Runner/Hilux (1986-1988)
- Nissan Patrol / Safari (1982-1987)
- Nissan Bluebird (1982-1986)
- Mitsubishi Starwagon / Delica Starwagon (1987-1993)
- Ford Capri (1989-1994)
- Toyota Crown / Cressida / Mark II (1982-1985)
- Holden Gemini (1982-1984)
- Toyota Landcruiser (1990-1997)
- Holden / Suzuki Barina / Swift / Cultus (1989-1999)
- Holden Commodore VB-VL (1982-1988)
- Nissan / Ford Pintara / Corsair / Bluebird (1989-1992)
- Toyota Corona (1982-1988)
- Subaru Impreza (1993-2000)
- Holden / Nissan Astra / Pulsar / Vector / Sentra (1988-1990)
- Suzuki Vitara / Escudo (1988-1998)
- Toyota Corolla (1986-1988)
- Honda Accord (1982-1985)
- Mitsubishi Sigma / Galant / Sapporo / Lambda (1982-1984)
- Mitsubishi Magna TM/TN/TP / Sigma / V3000 (1985-1990)
- Holden Commodore Ute VR/VS (1994-2000)
- Nissan Skyline (1983-1988)
- Daewoo Lanos (1997-2003)
- Toyota 4Runner/Hilux (1989-1997)
- Toyota Corolla (1982-1984)
- Ford Falcon XE/XF (1982-1988)
- Hyundai Excel / Accent (1995-2000)
- Ford / Nissan Falcon Ute / XFN Ute (1982-1995)
- Holden / Toyota Commodore VN/VP / Lexcen (1989-1993)

Figures 22 to 31 display for each of the market groups the total safety ratings of vehicles together with their 90% confidence limits. Also displayed on each graph is a line representing the average aggressivity rating of 3.57% and two lines at 3.03% and 4.10% representing 15% better than average or 15% worse than average respectively.

Figure 22: Total Secondary Safety for Compact Four Wheel Drive vehicles (with 90% confidence limits)

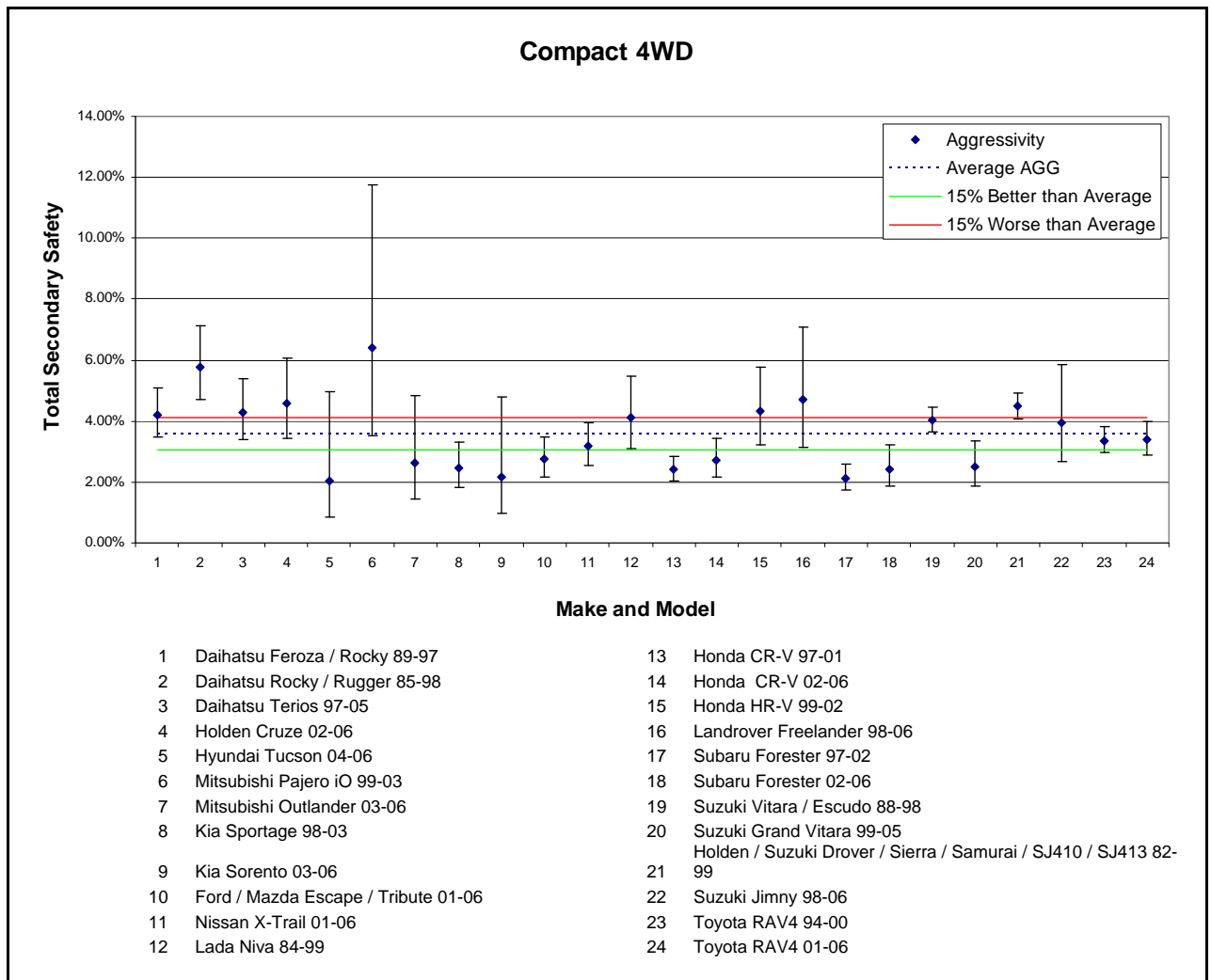


Figure 23: Total Secondary Safety for Medium Four Wheel Drive vehicles (with 90% confidence limits)

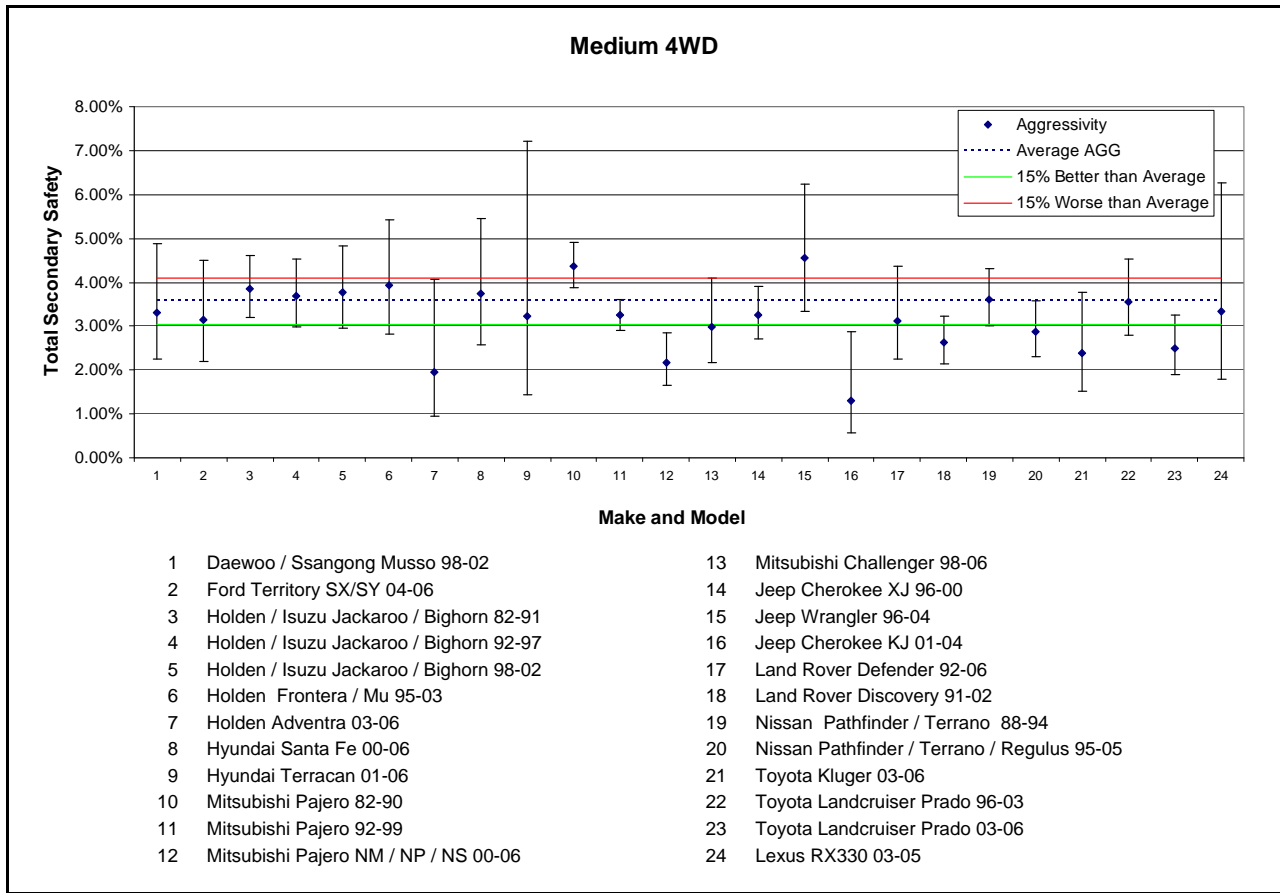


Figure 24: Total Secondary Safety for Large Four Wheel Drive vehicles (with 90% confidence limits)

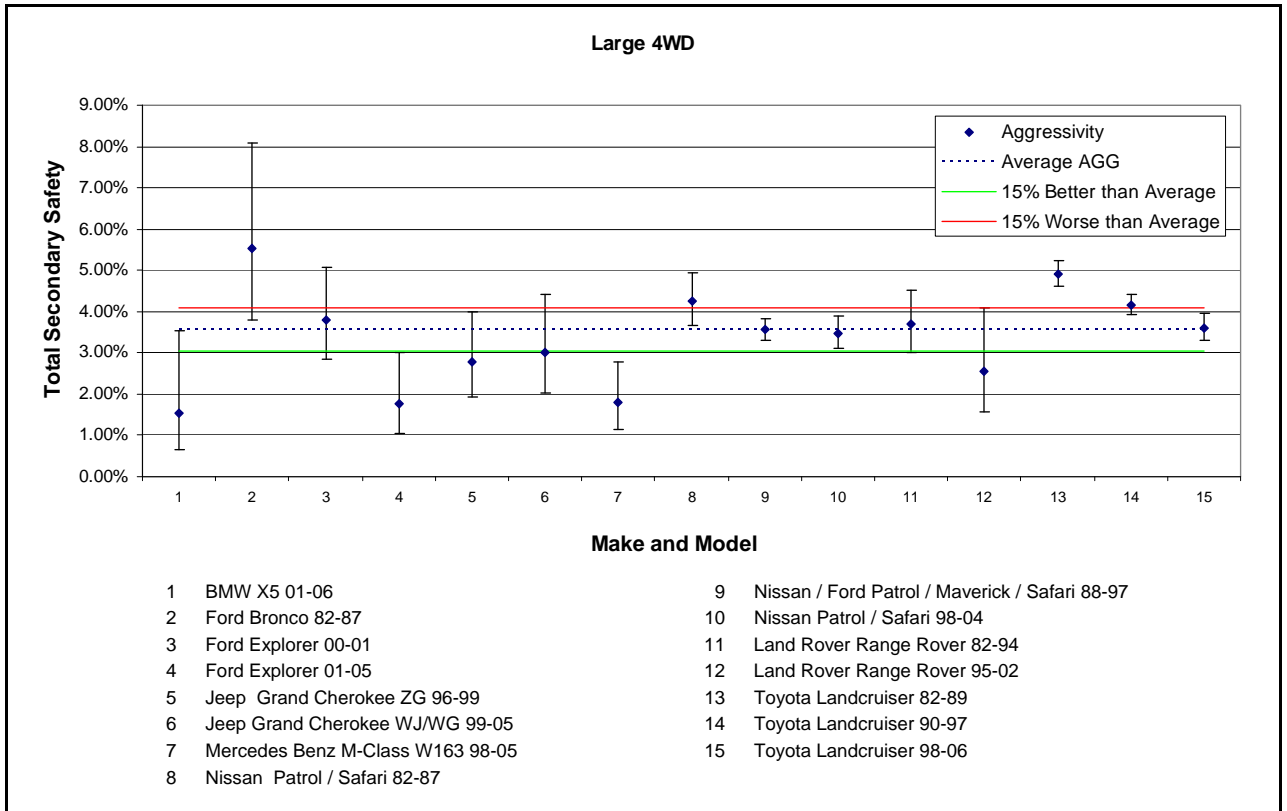


Figure 25: Total Secondary Safety for Commercial Vans (with 90% confidence limits)

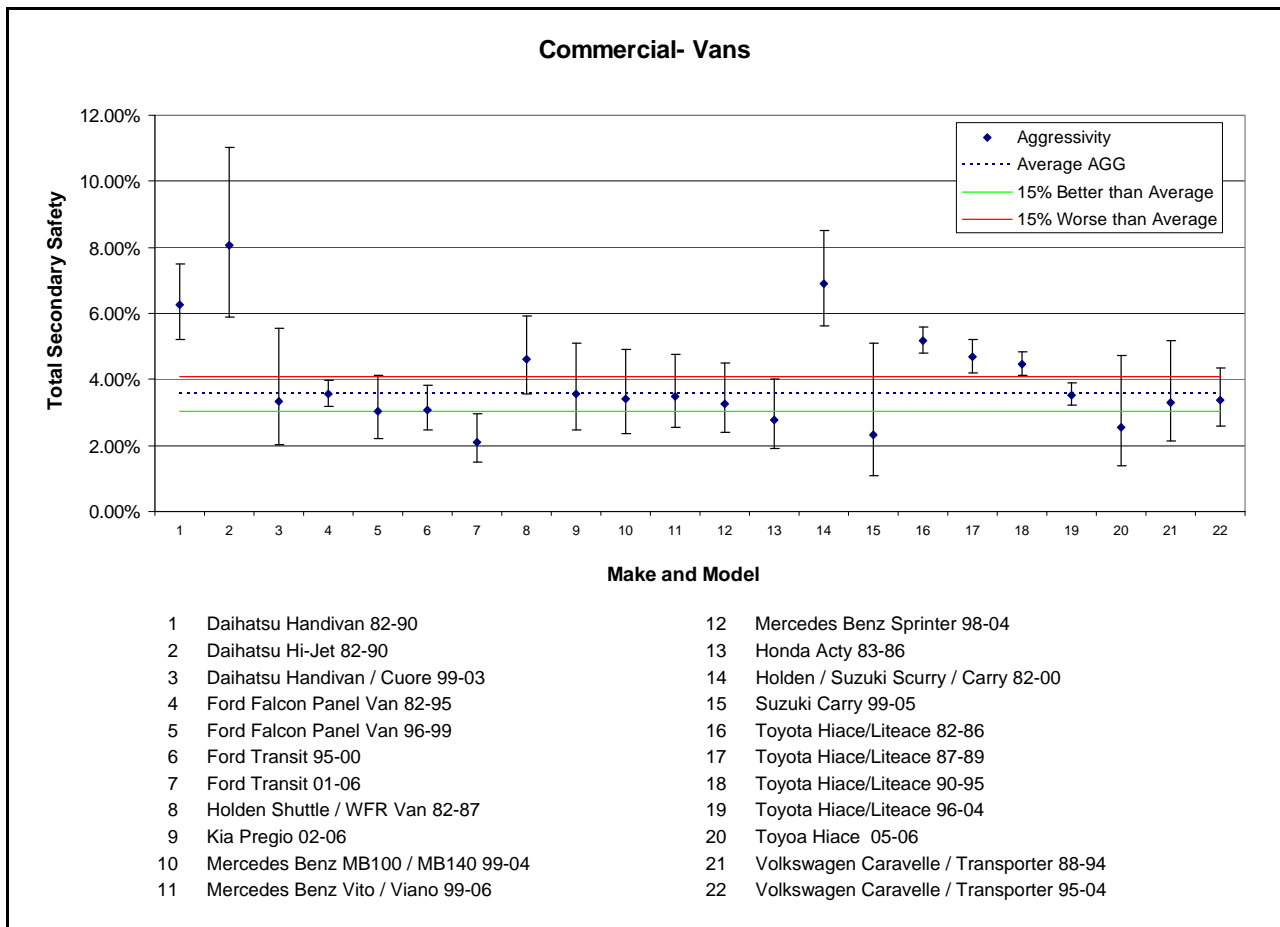


Figure 26: Total Secondary Safety for Commercial Utes (with 90% confidence limits)

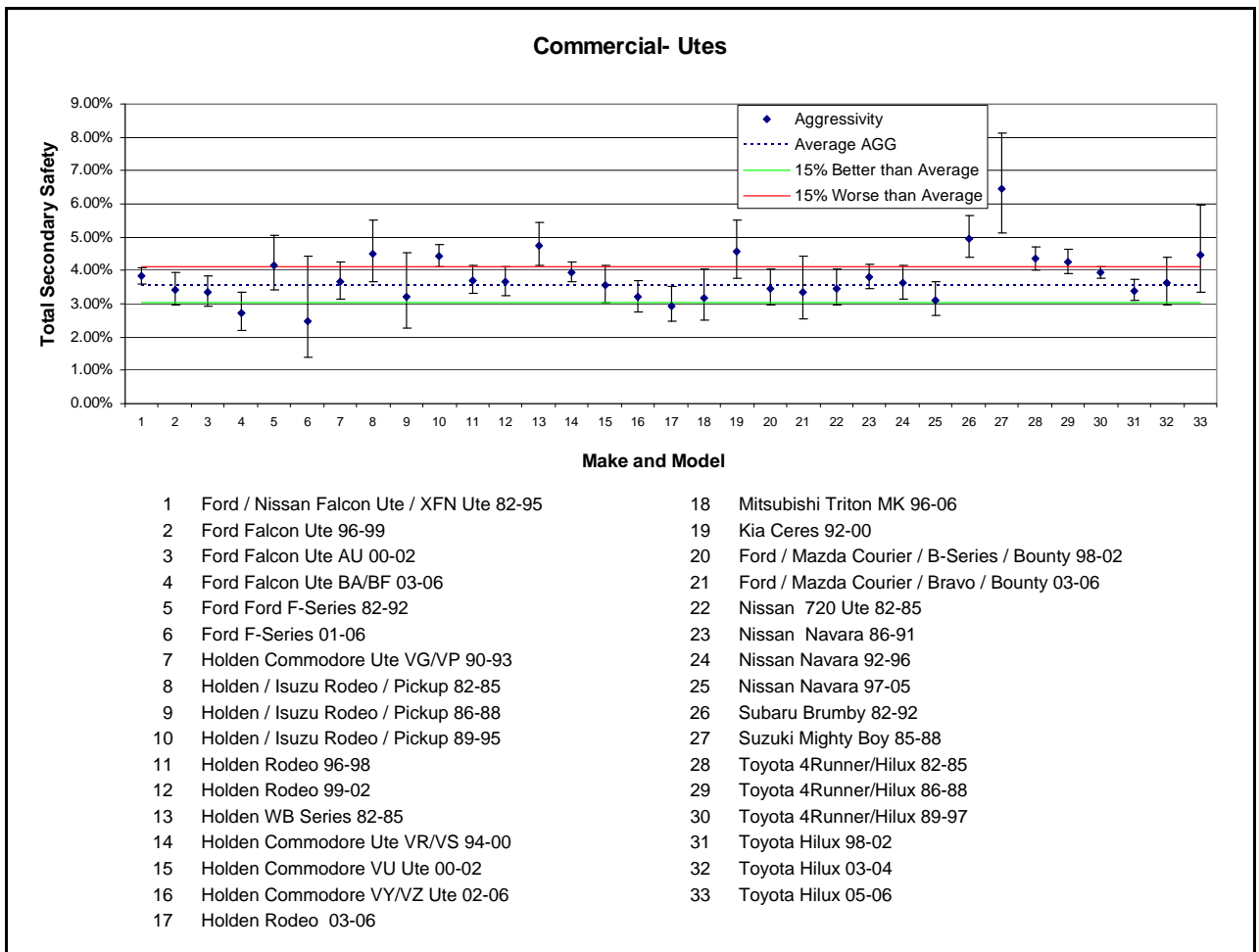


Figure 27: Total Secondary Safety for Large cars (with 90% confidence limits)

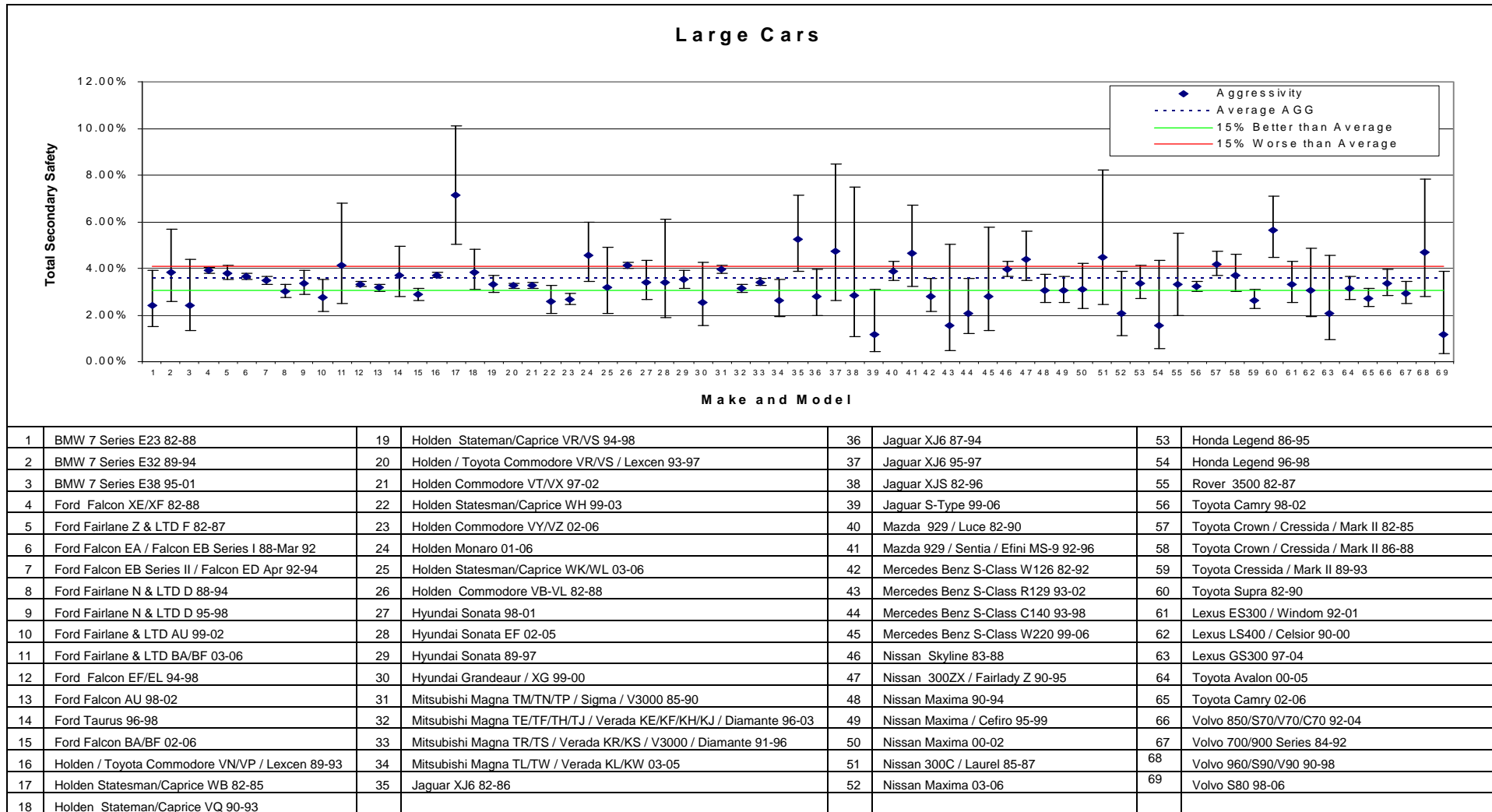


Figure 28: Total Secondary Safety for Medium cars (with 90% confidence limits)

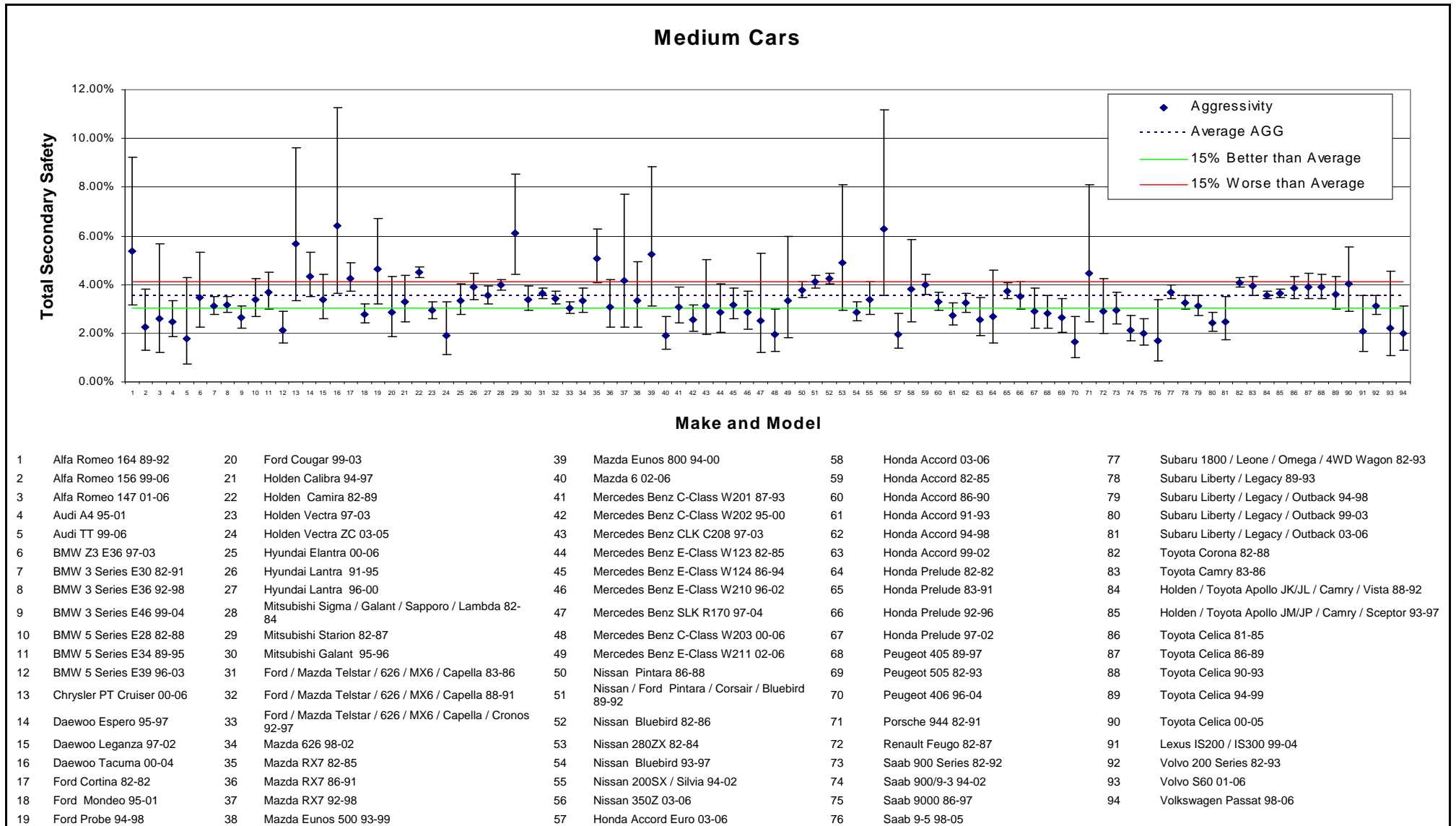
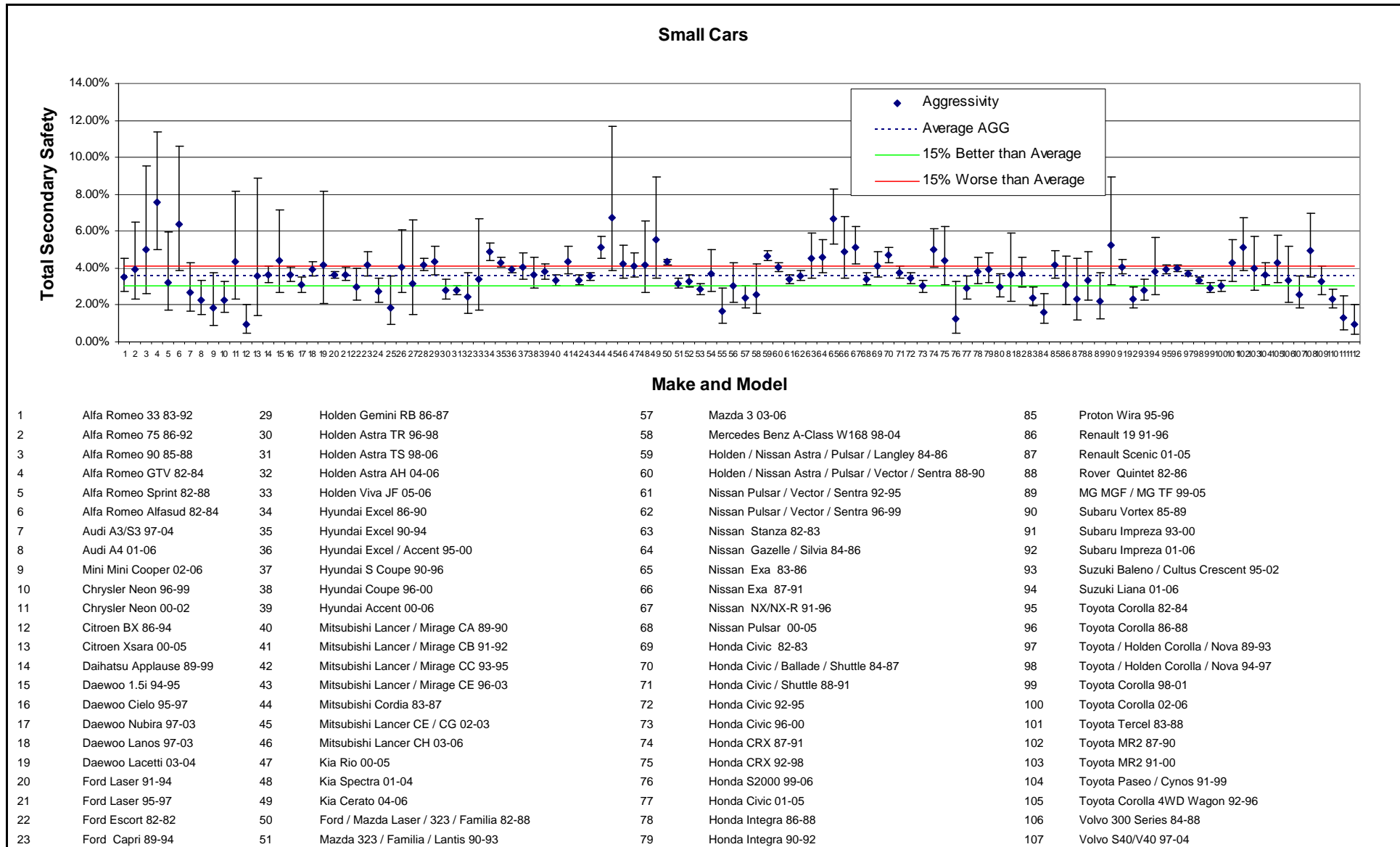


Figure 29: Total Secondary Safety for Small cars (with 90% confidence limits)



24	Ford Focus LR 02-05	52	Mazda 323 / Familia / Lantis 95-98	80	Honda Integra 93-01	108	Volkswagen Golf 82-94
25	Ford Focus LS 05-05	53	Ford / Mazda Laser / 323 99-03	81	Honda Integra 02-06	109	Volkswagen Golf 95-98
26	Fiat Regata 84-88	54	Mazda MX5 / Eunos Roadster 89-97	82	Honda Concerto 89-93	110	Volkswagen Golf / Bora 99-04
27	Holden / Isuzu Piazza 86-88	55	Mazda MX5 / Eunos Roadster 98-05	83	Peugeot 306 94-01	111	Volkswagen New Beetle 00-06
28	Holden Gemini 82-84	56	Mazda Eunos 30X / Presso / MX-3 / Autozam AZ-3 90-97	84	Peugeot 307 01-06	112	Volkswagen Golf / Jetta 04-06

Figure 30: Total Secondary Safety for Light cars (with 90% confidence limits)

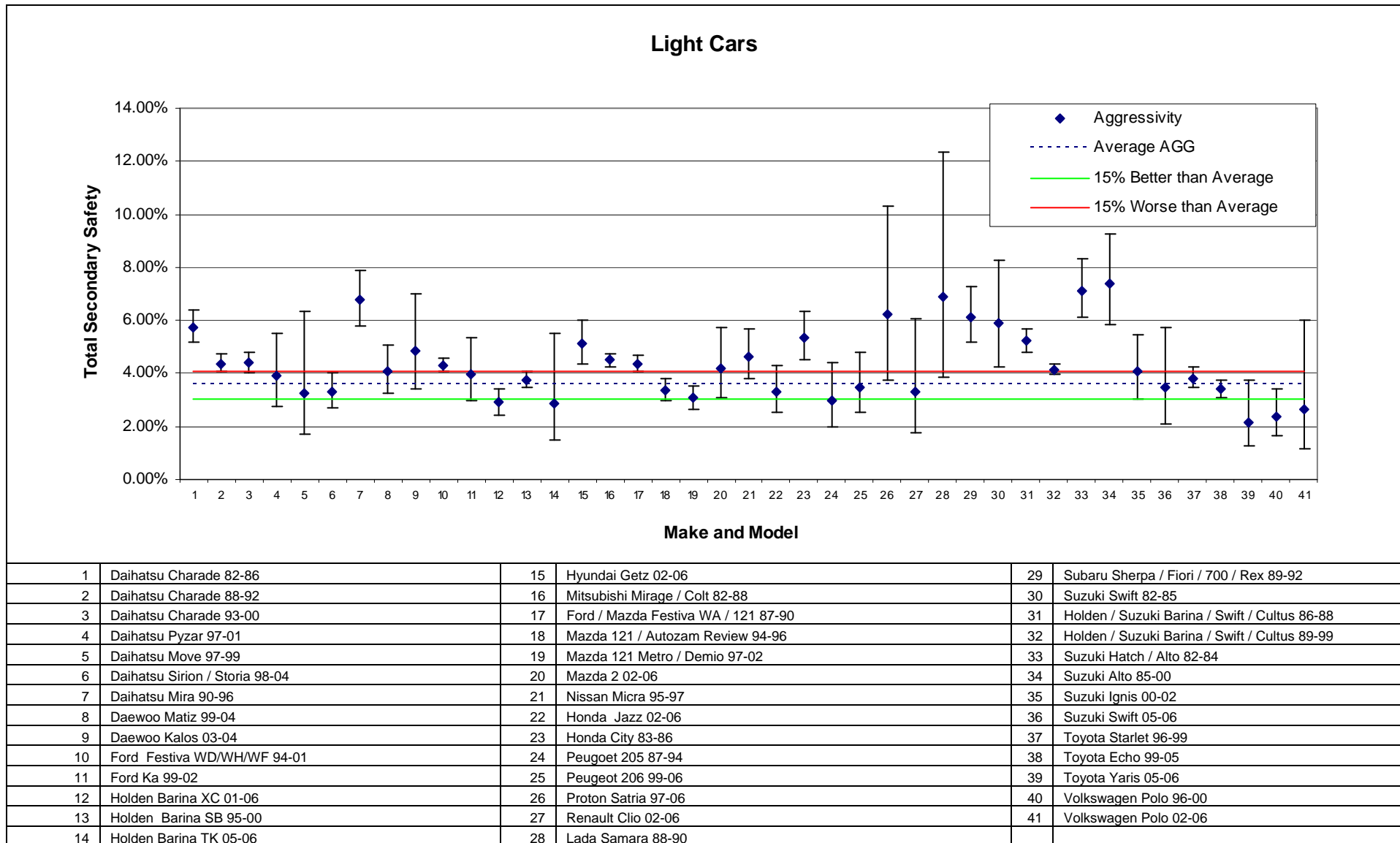
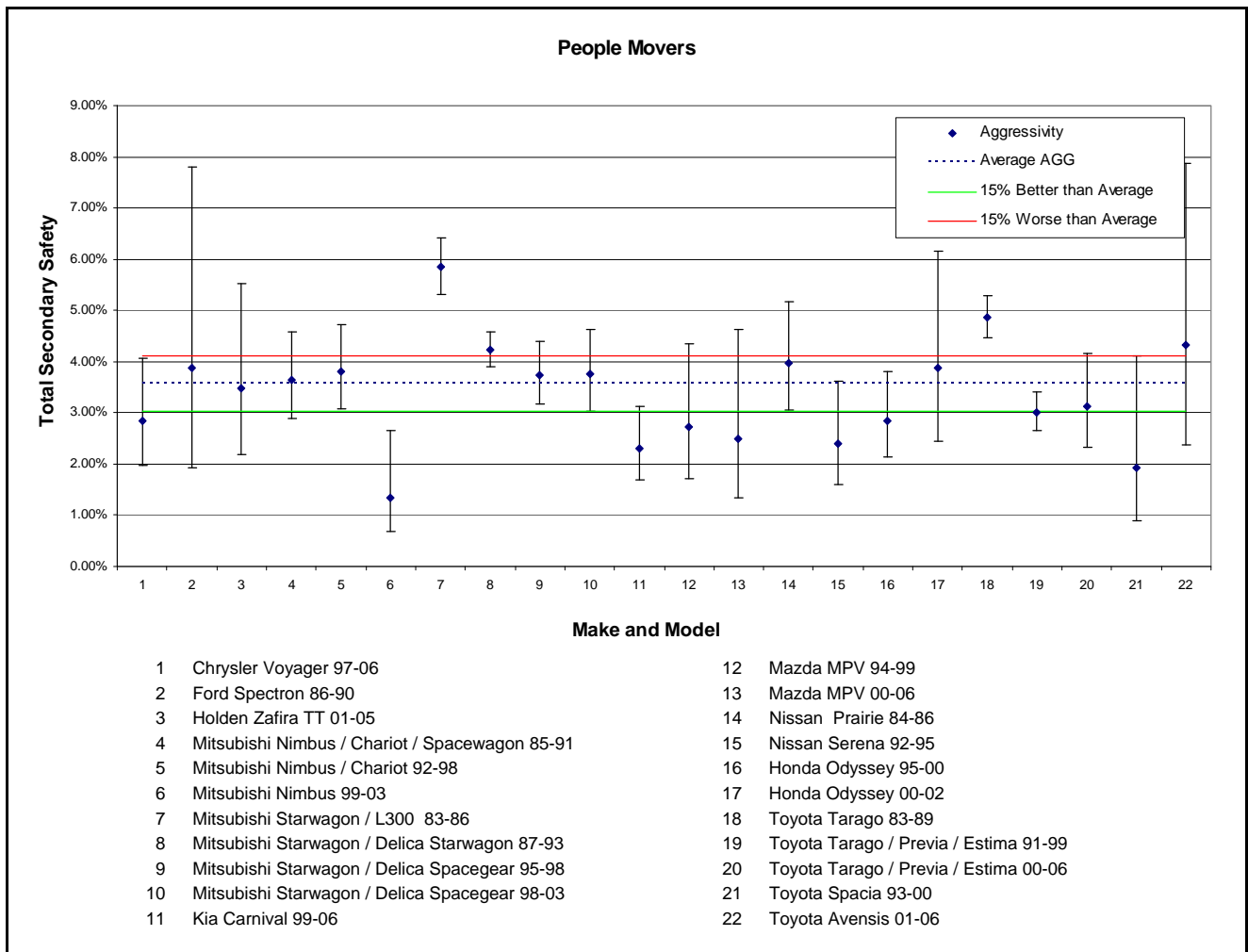


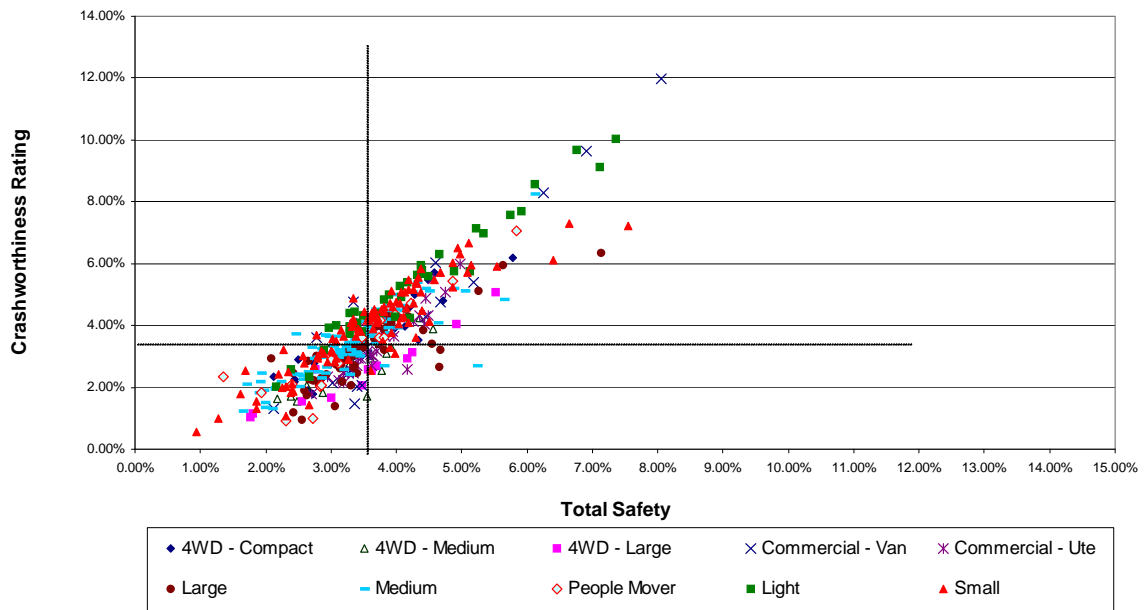
Figure 31: Total Secondary Safety for People Movers (with 90% confidence limits)



5.3.5 Comparison of Crashworthiness, Aggressivity and the Total Secondary Safety index

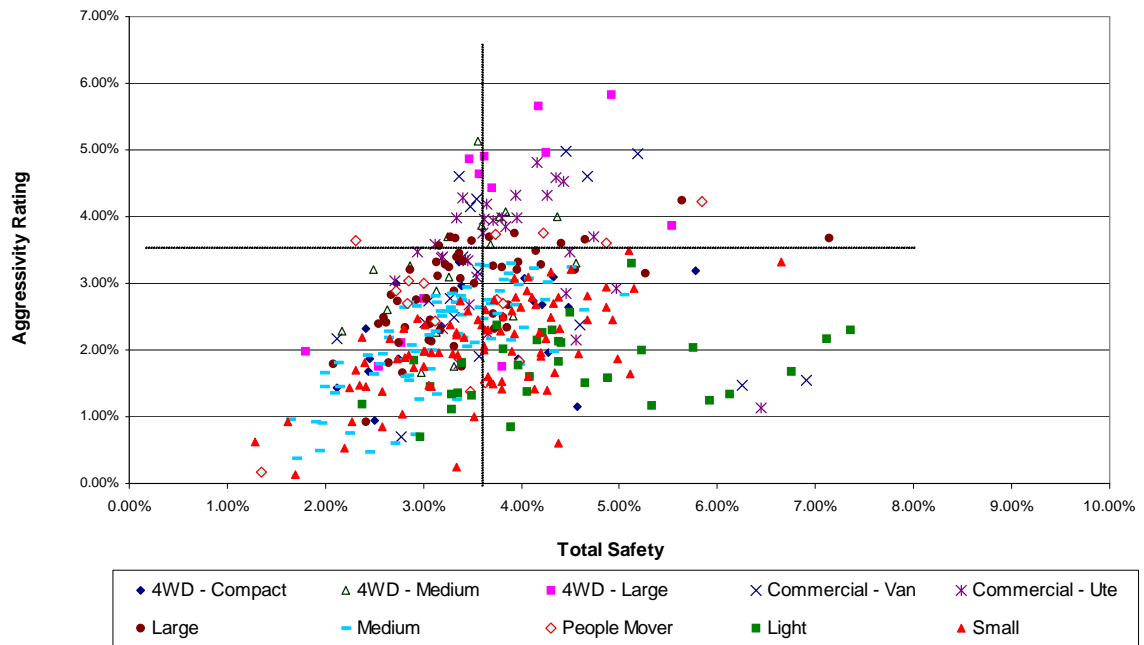
Figure 32 plots vehicle models crashworthiness ratings against their total secondary safety index. The solid lines on the chart are the average value for each index. Figure 32 shows a strong relationship exists between crashworthiness and total secondary safety reflecting that crashworthiness is relevant to injury outcome in all types of crashes involving light vehicles excluding those with unprotected road users.

Figure 32: *Crashworthiness vs. Total Secondary Safety*



In contrast, Figure 33 shows a much weaker relationship between aggressivity and total secondary safety reflecting that aggressivity is only relevant to injury outcome in crashes between 2 light vehicles and involving unprotected road users.

Figure 33: *Aggressivity vs. Total Secondary Safety*



Comparison by Market Groups

Tables 4, 5 and 6 show that essentially the rank order of the market groups within the total secondary safety index are consistent with the rankings within the crashworthiness measure but with a moderation effect on the total secondary safety index dependent on the aggressivity of the vehicle. In other words vehicles with high aggressivity display a shift in ranking for total secondary

safety towards higher or worse total secondary safety. For example, large four-wheel drives have shifted notably in their ranking from a 2 in the crashworthiness market group rankings to a ranking of 8 across the market groups for total secondary safety.

5.4 Presentation of Total Secondary Safety Index, Crashworthiness and Aggressivity Ratings for Consumer Information

Discussion in the previous work of Cameron et al (1998) noted, for simplicity of presentation and interpretation, particularly in the area of consumer safety advice, effort needed to be made to find a method of simultaneously using the information on vehicle crashworthiness and aggressivity. Possible solutions discussed included development of a single measure of total vehicle safety or, alternatively, development of some other cohesive method of summary presentation that reflects overall vehicle safety. In Newstead et al (2000), a method of presentation of the estimated crashworthiness ratings for Australian vehicles was devised that is similar in philosophy to the presentation method devised by Folksam Insurance for presentation of Swedish ratings. The method took into account both the rating point estimate and confidence limits, but removed the emphasis from the point estimate.

The total secondary safety, crashworthiness and aggressivity ratings presented for consumer information exclude those models where:

- the vehicle was manufactured prior to 1986 (related to the introduction of unleaded petrol and key regulatory changes in New Zealand), or
- the width of the 90% two-sided confidence interval was greater than 3.00% and the comparison average crashworthiness rating was within the 90% confidence interval (see section 5.1.4 for the definition of the comparison average crashworthiness), or
- the ratio of the confidence interval width to the rating score (coefficient of variation) exceeded 1.6 and the comparison average crashworthiness rating was within the 90% confidence interval.

The criteria above were used in the most recent update of Newstead et al (2007a, b) and Newstead et al (2007c). The decision was made to alter the criteria to avoid publishing ratings for vehicles based on relatively limited quantities of data. Vehicles are included which have a rating significantly different to the average crashworthiness rating although the confidence interval width exceeds 3% or the coefficient of variation exceeds 1.6. These vehicles whose confidence limit does not overlap the average can be classified statistically as either better or worse than average which is considered useful for consumer information. The criteria now exclude only those vehicles that are not statistically significantly different from average due to excessive variation in the estimated rating or the vehicle was manufactured prior to 1986.

In addition, as in previous updates, rated vehicles have been classified into five categories based on the range in which the confidence limits on the estimated ratings lie. The five categories are defined as follows.

- At least 15% safer than average: if the upper confidence limit on the estimated rating is less than 0.85 times the average crashworthiness rating for the vehicle fleet.
- At least safer than average: if the upper confidence limit on the estimated rating is less than the average crashworthiness rating for the vehicle fleet.
- Average: if the confidence interval on the estimated rating overlaps the average crashworthiness rating for the vehicle fleet.

- At least less safe than average: if the lower confidence limit on the estimated rating is greater than the average crashworthiness rating for the vehicle fleet.
- At least 15% less safe than average: if the lower confidence limit on the estimated rating is greater than 1.15 times the average crashworthiness rating for the vehicle fleet.

Presentation of the estimated total secondary safety index in this way is shown in Appendix 7. This presentation style has the advantage that it combines information about both the rating point estimate and confidence limit to classify the safety performance of the vehicle. This method of presentation takes the potential emphasis of the consumer off comparison of only the point estimate ratings, an emphasis that can be potentially misleading from the point of view of statistical confidence. Rather, the presentation method categorises vehicles according to the statistical significance of the difference of their estimated safety rating from defined points. Colour coding of the categories would typically be used with green depicting the safest category through blue, orange and brown to red depicting the least safe category. 90% two-sided confidence limits have been used to categorise the crashworthiness ratings in Appendix 7. These are equivalent to 95% one-sided confidence limits if a directional hypothesis of crashworthiness greater or less than the average is being assumed.

For comparison, the final two columns of Appendix 7 also show the corresponding crashworthiness and aggressivity rating category for each vehicle model using the above criteria.

Some vehicle models in Appendix 7 have no symbol in the crashworthiness and / or aggressivity rating column. These vehicles have been involved in an insufficient number crashes to have a crashworthiness and / or aggressivity rating estimated for them.

5.5 Crashworthiness by Year of Manufacture of the Australian Vehicle Fleet

5.5.1 Injury Risk

Injury risk was estimated from the data on 3,226,477 drivers involved in tow-away crashes in New South Wales, South Australia, Western Australia and Queensland during 1987 to 2006. This data set is referred to as the "involved drivers". Because of missing values of some of the factors to be included in the logistic regression, and the exclusion of pre-1964 vehicles and unknown years, analysis was performed on data relating to 2,744,110 involved drivers, 457,771 of whom were injured. The following non-vehicle factors and their interactions were statistically significantly associated with injury risk and were included in the logistic regression model.

Base effect terms	First order interactions	Second order interactions	Third order interactions
Sex	Sex*Speedzone	Sex*Speedzone*Nveh	Age*Speedzone*Nveh*State
Nveh	Speedzone*Nveh	Sex*State*Year	Speedzone*Nveh*State*Year
Speedzone	Sex*Nveh	Age*Speedzone*Nveh	
Age	Speedzone*Age	Age*Sex*Speedzone	
State	Age*Sex	Age*Nveh*State	
Year (of crash)	Year*State	Nveh*State*Year	
	Age*Nveh	Speedzone*Nveh*State	
	Nveh*State	Speedzone*State*Year	
	Nveh*Year	Age*State*Year	
	Age*State	Speedzone*Nveh*Year	
	Age*Year	Age*Sex*State	
	Speedzone*State	Sex*Speedzone*State	
	Sex*Year	Age*Speedzone*State	
	Speedzone*Year	Age*Sex*Nveh	
	Sex*State	Age*Nveh*Year	
		Sex*Nveh*Year	
		Sex*Nveh*State	

The overall (average) injury risk for involved drivers in tow-away crashes in NSW, Western Australia and Queensland was 16.68%. Appendix 7 gives the estimates of injury risk derived by logistic regression for the individual years of manufacture. The variability in the injury risk estimates relative to the year of manufacture can be seen from the width of the corresponding 95% confidence intervals.

5.5.2 Injury Severity

The data on "injured drivers" covered 533,424 drivers who were injured in crashes in Victoria or New South Wales during 1987-2006 or South Australia during 1995-2006 or Queensland and Western Australia during 1991-2006. Because of missing values of some of the associated crash factors and the exclusion of pre-1964 vehicles and unknown years, logistic regression was performed on data relating to 510,932 injured drivers, 116,415 of whom were severely injured (killed or admitted to hospital). The analysis identified a number of statistically significant non-vehicle factor and their interactions associated with injury severity. These were:

Base effect terms	First order interactions	Second order interactions	Third order interactions
Sex	Sex*Speedzone	Speedzone*Nveh*Year	Speedzone*Nveh*State*Year
Nveh	Speedzone*Nveh	Age*Speedzone*Nveh	Age*Nveh*State*Year
Speedzone	Speedzone*State	Age*Sex*Year	
Age	Speedzone*Age	Age*State*Year	
State	Age*Sex	Speedzone*Nveh*State	
Year (of crash)	Year*State	Speedzone*State*Year	
	Age*Nveh	Sex*State*Year	
	Nveh*State	Nveh*State*Year	
	Speedzone*Year	Sex*Nveh*State	
	Age*State	Age*Sex*Nveh	
	Age*Year	Age*Speedzone*State	
	Sex*State	Sex*Speedzone*Nveh	
	Sex*Year	Age*Nveh*Year	
	Nveh*Year	Age*Nveh*State	
	Sex*Nveh		

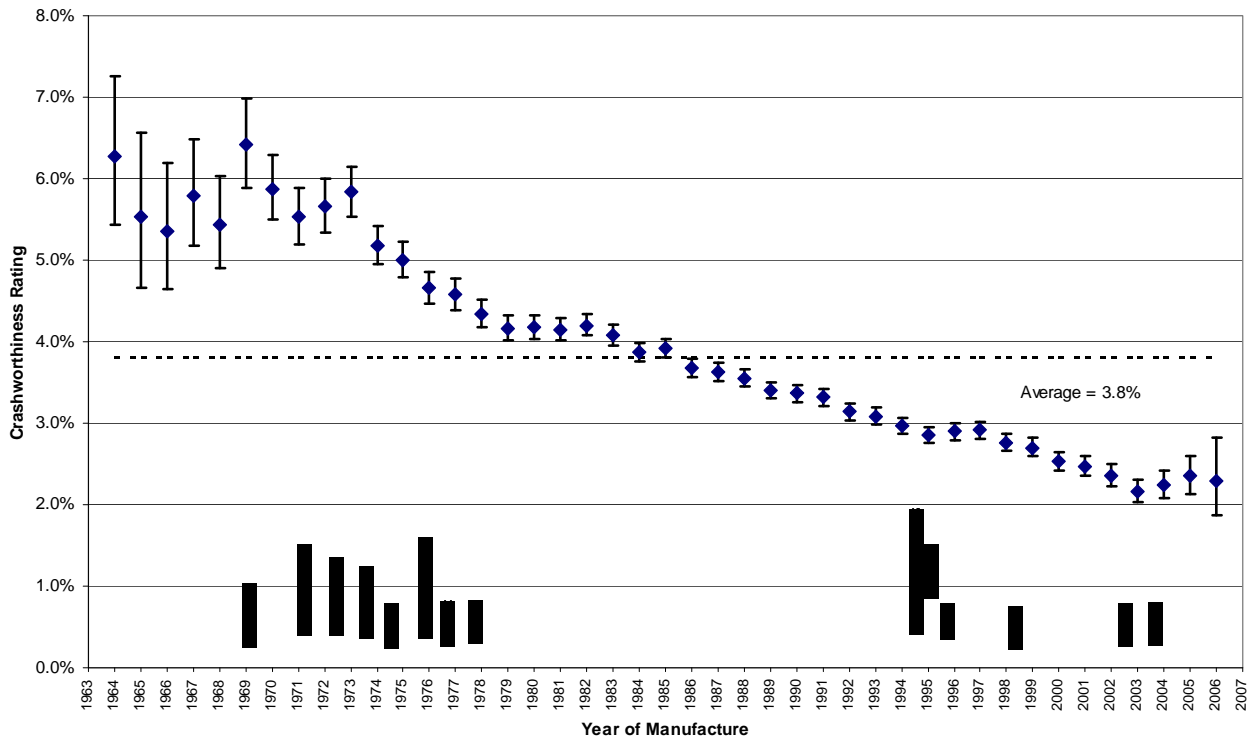
The overall (average) injury severity for injured drivers was 22.78%. Appendix 7 gives the estimates of injury severity derived by logistic regression for the individual years of manufacture. The variability in the estimates of injury severity relative to year of manufacture can be seen from the width of the corresponding 95% confidence intervals.

5.5.3 Crashworthiness by Year of Manufacture

The crashworthiness estimates for each year of manufacture were obtained by multiplying the individual injury risk and injury severity estimates. Because each of the two components has been adjusted for the confounding factors, the resultant crashworthiness estimate is also adjusted for the influence of them. Appendix 8 gives the crashworthiness estimates and the associated 95% confidence intervals for each of the 43 years of manufacture included in the analysis. Each estimate is expressed as a percentage, representing the number of drivers killed or admitted to hospital per 100 drivers involved in a tow-away crash. 95% confidence limits on the estimates are also given.

The crashworthiness estimates and their confidence limits are plotted for each year of manufacture in Figure 34. The relatively wide confidence intervals observed on the estimates of crashworthiness for years of manufacture 1964 to 1969 and 2006 are a reflection of the smaller numbers of crashes involving vehicles manufactured in these years appearing in the data. Introduction of key safety related Australian Design Rules as well as consumer information programs likely to have influenced levels of vehicle safety are also shown on Figure 34. Full details of these initiatives are given in Newstead et al (2006).

Figure 34: *Crashworthiness by year of manufacture (with 95% confidence limits)*



The injury risk component of the crashworthiness estimate, together with its 95% confidence limits, is plotted in Figure 35. In a similar way, the injury severity component is plotted in Figure 36.

Figure 35: *Injury risk by year of manufacture (with 95% confidence limits)*

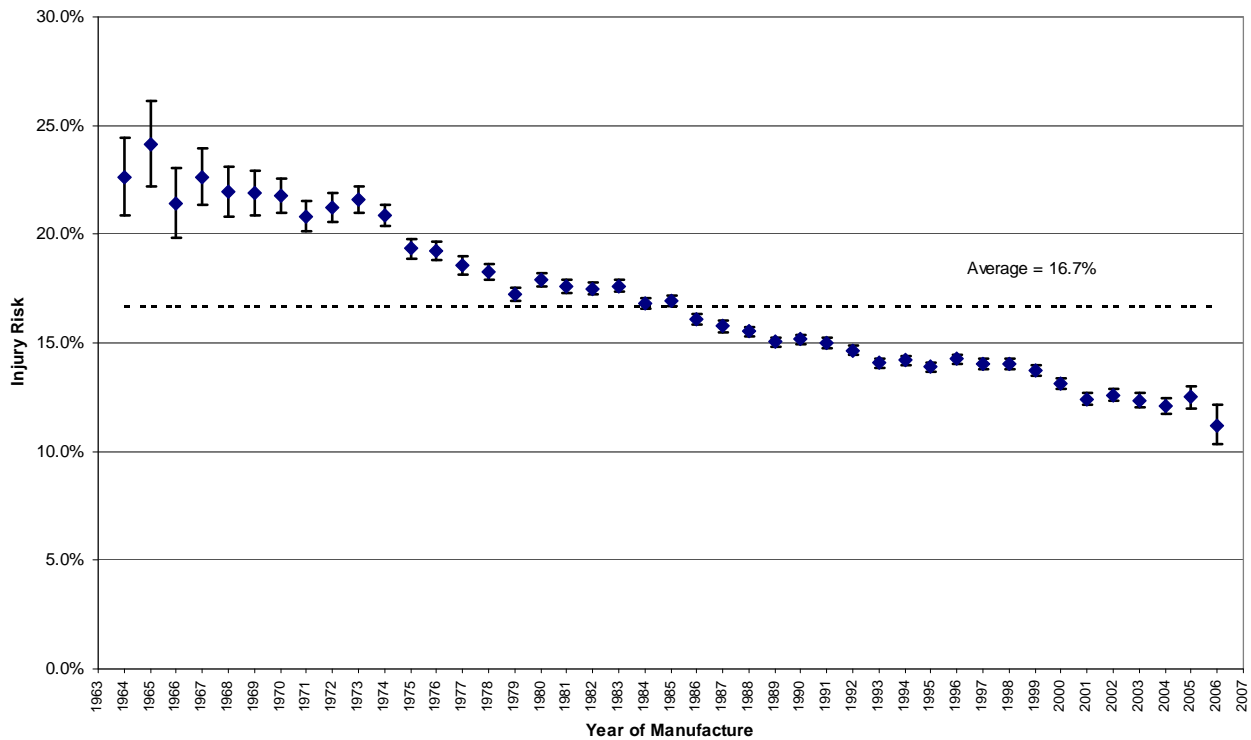
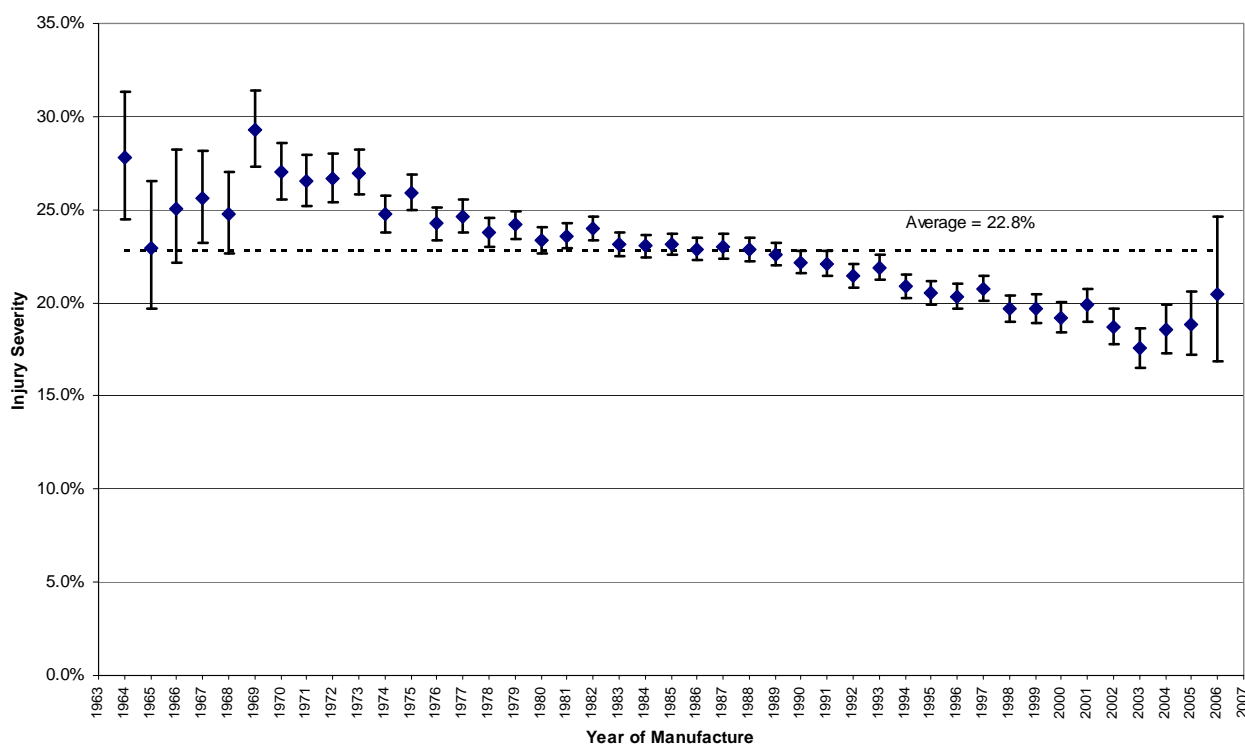


Figure 36: *Injury severity by year of manufacture (with 95% confidence limits)*



5.6 Crashworthiness by Year of Manufacture and Market Group for the Australian Vehicle Fleet

Using the methods of Newstead and Cameron (2001), trends in vehicle crashworthiness by year of manufacture have been estimated separately for each of the 10 defined vehicle market groups. Because vehicle model information was required to assign a market grouping, analysis of trends by year of manufacture within market group could only be carried out for vehicles manufactured from 1982 to 2006. In contrast to estimation of crashworthiness ratings by vehicle model, there was no minimum data requirement for a particular model to be included in the analysis. Hence all vehicle models for which a market group could be assigned were included. However, despite aggregation over vehicle models, it was not possible to estimate crashworthiness estimates for particular years of manufacture in certain market groups due to insufficient data quantities.

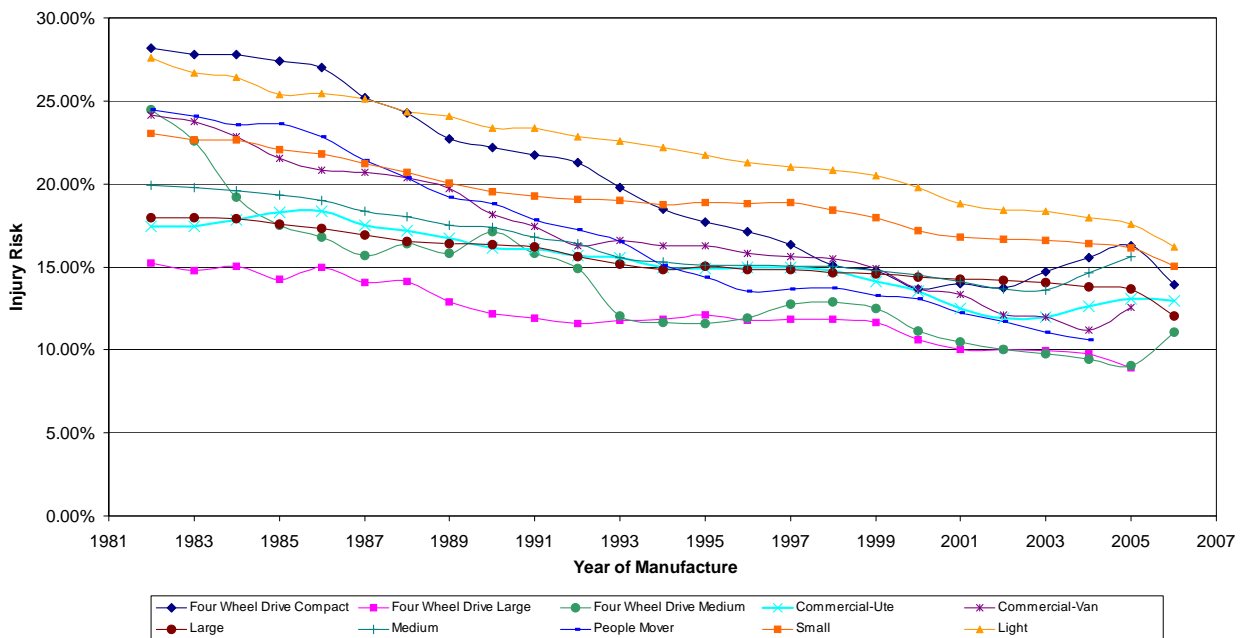
5.6.1 Injury Risk

Injury risk was estimated from the data on 2,049,976 drivers of 1982 to 2006 vehicles with identified model and market group details involved in tow-away crashes in New South Wales, South Australia, Western Australia and Queensland during 1987 to 2006. The following non-vehicle factors and their interactions were statistically significantly associated with injury risk and were included in the logistic regression model.

Base effect terms	First order interactions	Second order interactions	Third order interactions
Sex	Sex*Speedzone	Sex*Speedzone*Nveh	Speedzone*Nveh*State*Year
Nveh	Speedzone*Nveh	Age*Speedzone*Nveh	Age*Speedzone*Nveh*State
Speedzone	Sex*Nveh	Age*Nveh*State	
Age	Speedzone*Age	Nveh*State*Year	
State	Age*Sex	Speedzone*Nveh*State	
Year (of crash)	Year*State	Age*Speedzone*State	
	Age*Nveh	Age*Speedzone*Year	
	Nveh*State	Speedzone*Nveh*Year	
	Nveh*Year	Speedzone*State*Year	
	Age*State	Age*Sex*Speedzone	
	Age*Year	Age*Nveh*Year	
	Speedzone*State	Age*State*Year	
	Speedzone*Year	Age*Sex*Nveh	
	Sex*Year		

Figure 37 shows the estimates of injury risk by year of vehicle manufacture for each of the 10 market groups considered. Estimates have been smoothed using a linear smoothing function over a window of three years (the central year and a year either side). Smoothing of the estimates was carried out to better identify the trends in the data. Smoothing in this way also compensates for known error in the recording of the year of vehicle manufacture, an error typically up to one year from the true date of manufacture.

Figure 37: *Estimated injury risk by year of vehicle manufacture and market group*



5.6.2 Injury Severity

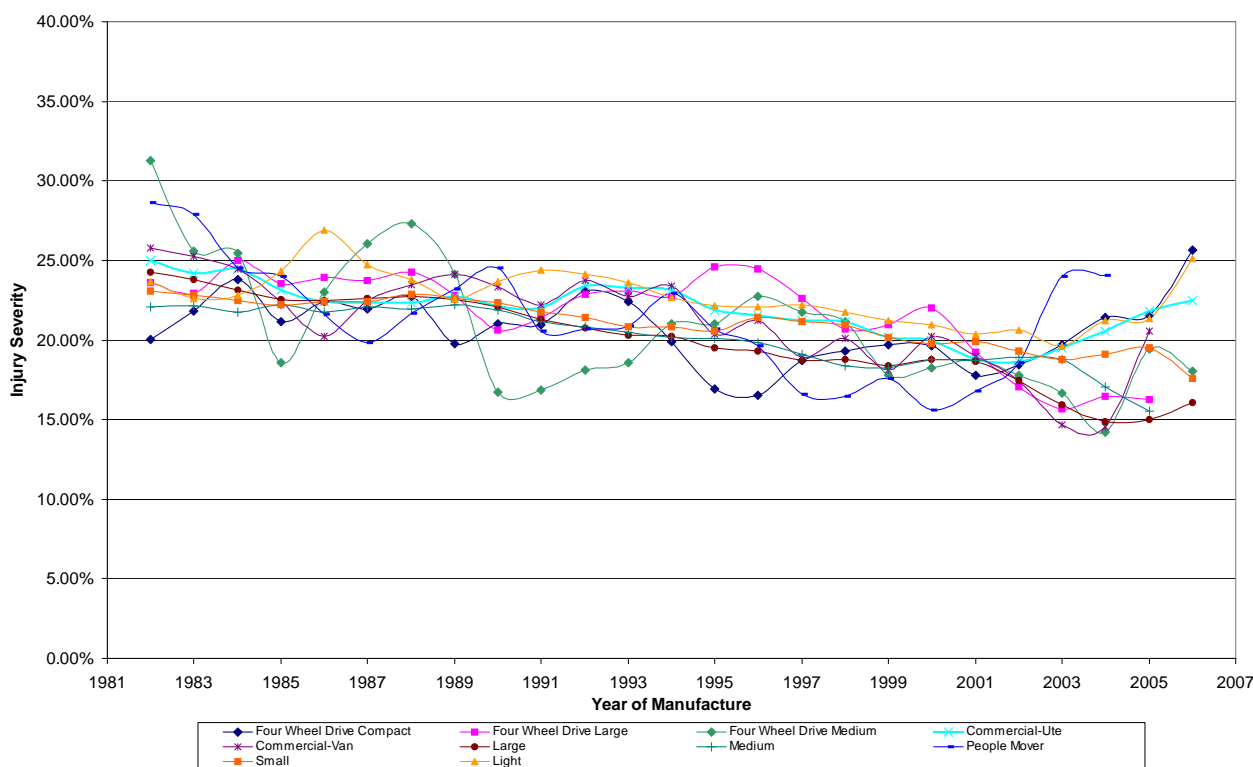
The data for computation of injury severity covered 306,465 drivers of 1982-2006 model vehicles who were injured in crashes in Victoria or New South Wales during 1987-2006, South Australia

during 1995-2006 or Queensland or Western Australia during 1991-2006. The following non-vehicle factors and their interactions were significantly associated with injury severity:

Base effect terms	First order interactions	Second order interactions
Sex	Speedzone*Nveh	Speedzone*Nveh*State
Nveh	Sex*State	Speedzone*State*Year
Speedzone	Age*Sex	Sex*Speedzone*State
Age	Nveh*State	Age*State*Year
State	Speedzone*State	
Year (of crash)	Year*State	
	Age*Nveh	
	Age*State	
	Age*Year	
	Speedzone*Year	
	Nveh*Year	
	Sex*Speedzone	

Figure 38 shows the estimates of injury severity by year of vehicle manufacture for each of the 10 market groups considered. Estimates have again been smoothed to better identify the trends in the data.

Figure 38: Estimated injury severity by year of vehicle manufacture and market group



5.6.3 Crashworthiness by Year of Manufacture and Market Group

The crashworthiness estimates for each year of manufacture were obtained by multiplying the individual injury risk and injury severity estimates. Appendix 9 gives the crashworthiness estimates and the associated 95% confidence intervals for each of the years of manufacture from 1982 to 2006 by each of the 10 vehicle market groups considered. Each estimate is expressed as a

percentage, representing the number of drivers killed or admitted to hospital per 100 drivers involved in a tow-away crash. The crashworthiness estimates are plotted for each year of manufacture and vehicle market group in Figure 39. Again, the values in Figure 39 have been smoothed for reasons given above.

Figure 39: *Estimated crashworthiness by year of vehicle manufacture and market group*

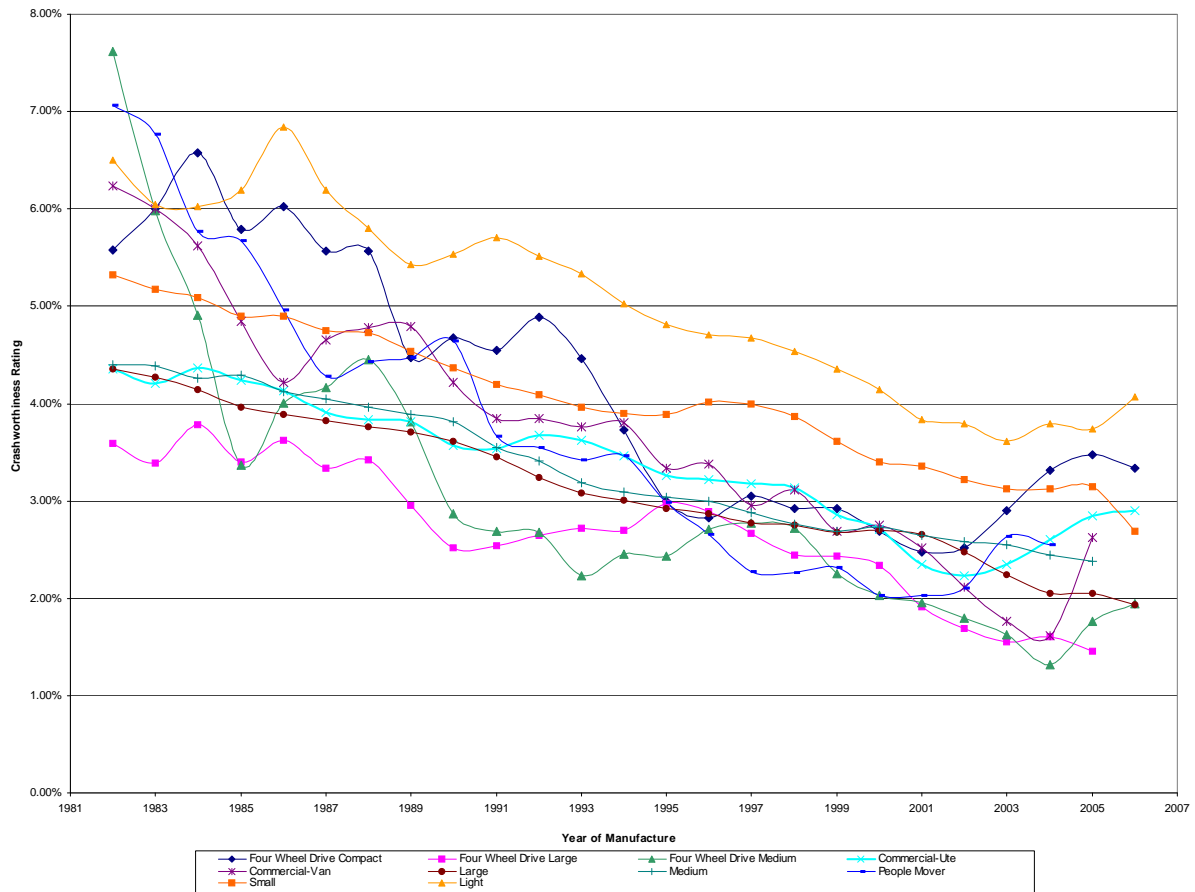


Figure 39 clearly shows differential performance in crashworthiness between vehicle market groups, reflecting the same differences seen in average crashworthiness by market groups found in the make and model specific ratings presented above (see Appendix 4). It is, however, difficult from Figure 39 to gauge differential improvements in crashworthiness over time. This is due to the complexity of the figure with 10 market groups as well as the relatively high variance in some of the year to year estimates despite smoothing. To try and better measure differential time based safety improvements by market group, Figure 40 presents average crashworthiness by 5-year time blocks of manufacture for the periods 1982-1986, 1987-1991, 1992-1996 and 1997-2001 and 2002-2006. In addition, estimates have been scaled to be relative to the first time block (1982-1986) for each market groups. Whilst Figure 40 no longer reflects average differences in crashworthiness between market groups, it more clearly demonstrates differential performance between market groups in improving crashworthiness over time.

Figure 40: Average crashworthiness by year of manufacture and market group by year range relative to the 1982-1986 average

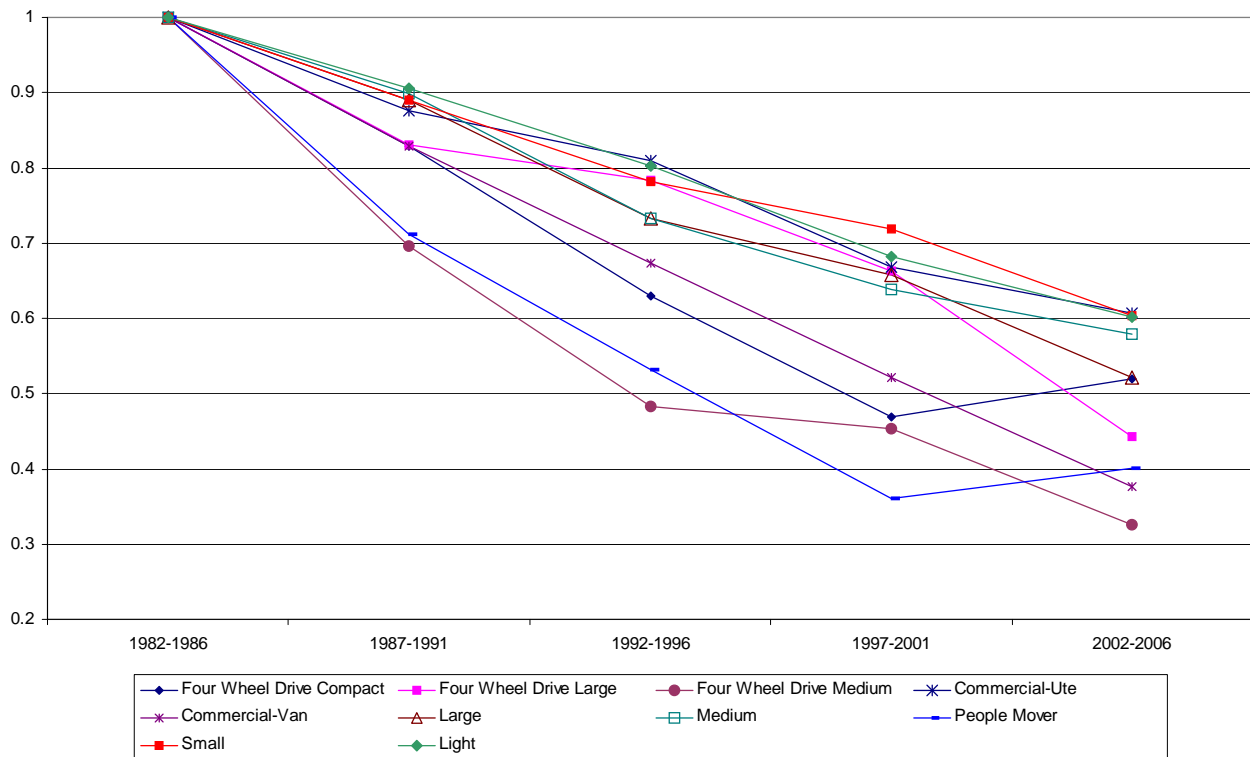


Figure 40 shows that certain vehicle market groups have experienced greater relative improvements in crashworthiness over the study period than others. The medium 4WDs and commercial van market groups have shown the greatest improvement in crashworthiness over the study period of between 62 and 67 percent. The people mover market group had the next greatest improvement in crashworthiness of 60%, a reversal of the 64% improvement to 2001. The compact and large 4WD and large car market groups have shown the next greatest improvement in crashworthiness over the study period of between 48 and 56 percent. Gains were consistent across time in all these market groups apart from the compact 4WD and people mover market groups which have a reversal in comparison to the previous time block. The medium, commercial ute, small and light market groups have shown the most modest gains over the study period of between 39 and 42 percent. Gains were consistent across time in all these market groups.

7. CONCLUSIONS

Additional crash data has enabled the crashworthiness ratings to be obtained for a larger range of car models than in previous studies with the ratings now covering 406 different vehicle models manufactured from 1982-2006. The new data set has been able to produce more up-to-date and reliable estimates of the crashworthiness of individual car models than those published previously.

The rating scores estimate the risk of a driver being killed or seriously injured when involved in a tow-away crash, to a degree of accuracy represented by the confidence limits of the rating in each case. The estimates and their associated confidence limits are sufficiently sensitive that they are able to identify 210 models of passenger cars, four wheel drive vehicles, people movers and light commercial vehicles that have superior or inferior crashworthiness characteristics compared with the average vehicle. Ratings are presented for individual vehicle models in the Australian and New Zealand passenger fleets classified into one of 10 market groups.

This update of the ratings also revised the vehicle aggressivity ratings. The aggressivity measure considers the injury outcome to both drivers of other vehicles and unprotected road users including pedestrians, bicyclists and motorcyclists. The aggressivity rating measured the risk of death or serious injury a vehicle poses to drivers of other cars or unprotected road users with which it impacts in a crash. The mix of other drivers and unprotected road users on which the rating for each vehicle was based was standardised along with various other non-vehicle related factors using logistic regression techniques.

The aggressivity measure was calculated for 374 models of Australian and New Zealand passenger vehicles (passenger cars, four wheel drive vehicles, passenger vans and light commercial vehicles) manufactured between the years 1982-2006. The degree of accuracy of the aggressivity ratings is represented by the confidence limits of the rating in each case. The estimates and their associated confidence limits are sufficiently sensitive that they are able to identify 145 models of passenger cars, four wheel drive vehicles, passenger vans and light commercial vehicles that have superior or inferior aggressivity characteristics compared with the average vehicle. Estimated vehicle aggressivity towards drivers of other vehicles or unprotected road users was found to have a proportional relationship with vehicle mass. It was also found to have little or no relationship with ratings of vehicle crashworthiness, demonstrating the independence of the two complementary measures. For this update, 372 of the 406, or 92%, of the vehicle models rated for crashworthiness were also able to be rated for aggressivity.

The crashworthiness of passenger vehicles in the Australian vehicle fleet (cars, station wagons, four wheel drives, vans and taxis), measured by the risk of the driver being killed or admitted to hospital as the result of involvement in a tow-away crash, has been estimated for the years of manufacture from 1964 to 2006. This study further updates the original one by Cameron et al (1994a) for years of manufacture 1964 to 1992. It shows similar patterns of improvements in crashworthiness with the greatest gains over the years 1970 to 1979 during which time a number of new Australian Design Rules aimed at occupant protection took effect. Further significant gains in crashworthiness have also been observed over the years 1986 to 2006, with notable steady gains from 1985 to 1995 and since 2000. Trends in crashworthiness by year of vehicle manufacture from 1982 to 2006 for each of the 10 vehicle market groups were also estimated showing differential improvement in crashworthiness by market group by year of manufacture.

The total secondary safety index developed in Newstead et al (2007c) was updated to include records of light vehicle crashes reported to the police in four Australian states and New Zealand from 1987 to 2006. The index was adjusted for the sex and age of the person whose injury outcome was being measured, speed limit at the crash location, number of vehicles involved, the jurisdiction

in which the crash occurred and the year in which the crash occurred. These factors were strongly related to injury risk and/or severity. In addition to the above factors this rating was also adjusted for the type of crash and road user combination as this factor was strongly related to injury risk and/or severity. Total secondary safety index estimates and their associated confidence limits were obtained for 456 vehicle models classified into 10 market groups. They were sufficiently sensitive that they were able to identify 181 models of passenger cars, four-wheel drive vehicles, passenger vans and light commercial vehicles that have superior or inferior total secondary safety characteristics compared with the average vehicle.

The total secondary safety index summarises the combined crashworthiness and aggressivity measures in a way that best reflects the relative importance of each component in real world crash circumstances. By constructing the total secondary safety index as a weighted average of injury outcome probabilities in a range of relevant major crash types involving light passenger vehicles and weighting each component by the relative incidence of that crash type, the index developed represents the most objective and relevant summary possible.

By having a single index estimated in a single integrated analysis, it has allowed total secondary safety to be considered on a vehicle by vehicle basis with statistical confidence limits placed in the estimates. One key advantage of the integrated total secondary safety measure is that it makes maximum use of the available crash data to assess vehicle secondary safety performance. Applied to the available police reported crash data it was possible to estimate statistically reliable ratings for 456 distinct makes and models of vehicles. This compares to the separate crashworthiness and aggressivity measures calculated from the same data where only 406 and 374 vehicles respectively were rated. The estimates and their associated confidence limits were also sufficiently sensitive that they are able to identify 181 models of passenger cars, four-wheel drive vehicles, passenger vans and light commercial vehicles that have superior or inferior total secondary safety characteristics compared with the average vehicle.

Comparison of the total secondary safety index with the crashworthiness and aggressivity estimates gives insight into the relative importance of the two separate measures in determining overall vehicle secondary safety performance. Comparison of Figures 32 with 33 shows the total vehicle secondary safety index is much more strongly associated with the crashworthiness measure than the aggressivity measure. This is as expected given that a vehicle's crashworthiness performance is relevant in a wider range of crash types than is its aggressivity. Specifically, crashworthiness is relevant in all crashes except crashes involving unprotected road users. In comparison, aggressivity is only relevant in crashes involving other light passenger vehicle or unprotected road users. This comparison highlights how the total safety index weights the crashworthiness and aggressivity performance in a way most appropriate to the crash types represented in the total crash population. However, this means the total secondary safety index will to a large degree be dependent on the distribution of crash types in the jurisdiction where the rated vehicle set is exposed. Consequently, the total safety index most relevant to one country might not be the most relevant to another if their crash type distributions are fundamentally different. For example, aggressivity might weight more highly in the total secondary safety index in the UK where they have more multi-vehicle and unprotected road user crashes compared to Australia and New Zealand where single vehicle crashes and hence crashworthiness weight more highly.

When considering market group based results, Table 6 shows large cars and medium four wheel drives to have the best (lowest) total safety index of the 10 market groups considered. In contrast, light vehicles and commercial vans have the poorest overall secondary safety performance (highest index). It is interesting to note that the difference in between the best and worst market groups for total secondary safety differ by only a factor of 1.10. In contrast, the crashworthiness and aggressivity rating differ between best and worst market groups by a factor of 1.95 and 2.21

respectively. Both the crashworthiness and aggressivity indexes are dependent on vehicle mass which tends to heighten the spread of ratings between market groups. Since the mass relationship is opposite between the crashworthiness and aggressivity ratings, combining them in the total secondary safety index will to at least some degree cancel out the mass effect explaining the lower range of total secondary safety values estimated.

For vehicle regulators and safety advocates, the total secondary safety index possibly represents the most relevant measure of vehicle secondary safety performance as it encapsulates the total performance of the vehicle in preventing serious injury outcome. The total secondary safety index is the most relevant to developing policy to optimise the safety of the light vehicle fleet. Advocating use of the total secondary safety index as the primary consumer focus is much more likely to lead to better vehicle safety choices for society as a whole. Optimising on crashworthiness or aggressivity alone will not necessarily produce the safest vehicle fleet. However, the crashworthiness and aggressivity components are still important separately to identify those characteristics of a vehicle leading to good performance in each dimension. Furthermore, the results of this study identify that optimising crashworthiness performance in the Australasian setting will lead to faster and wider spread gains than optimising aggressivity.

8. ASSUMPTIONS AND QUALIFICATIONS

The results and conclusions presented in this report are based on a number of assumptions and warrant a number of qualifications that the reader should note. These are listed in the following sections.

8.1 Assumptions

It has been assumed that:

- TAC claims records and, Victorian, New South Wales, South Australian, Western Australian, Queensland and New Zealand Police crash reports accurately recorded driver injury, hospitalisation and death.
- There was no bias in the merging of TAC claims and Victorian Police crash reports related to the model of car and factors affecting the severity of the crash.
- Crashed vehicle registration numbers were recorded accurately on Police crash reports and that they correctly identified the crashed vehicles in the Victorian, New South Wales, South Australian, Queensland, Western Australian and New Zealand vehicle registers.
- The adjustments for driver sex, age, speed zone, the number of vehicles involved and the state and year in which the crash occurred removed the influences of the other main factors available in the data that affected crash severity and injury susceptibility.
- The form of the logistic models used to relate injury risk and injury severity with the available factors influencing these outcomes (including the car model, market group or year of manufacture) was correct.
- Information contained in the Police crash records allowed accurate matching of both vehicles involved in crashes between two passenger cars and vehicles impacting unprotected road users for the purpose of calculating aggressivity ratings.

8.2 Qualifications

The results and conclusions warrant at least the following qualifications:

- Only driver crash involvements and injuries have been considered. Passengers occupying the same model cars may have had different injury outcomes.
- Some models with the same name through the 1982-2006 years of manufacture may have varied substantially in their construction, specification and mass. Although there should be few such models in these updated results, the rating score calculated for these models may give a misleading impression and should be interpreted with caution.
- Other factors not collected in the data (e.g. crash impact severity) may differ between the models and may affect the results. However, earlier analysis has suggested that the different rating scores are predominantly due to vehicle factors alone (Cameron et al 1992).

REFERENCES

- Broughton, J. (1994) *The theoretical basis for comparing the accident record of car models*, Project Report 70, Safety and Environment Resource Centre, Transport Research Laboratory, Crowthorne, Berkshire, U.K.
- Broughton, J. (1996) 'The theoretical basis for comparing the accident record of car models', *Accident Analysis and Prevention*, Vol. 28, No. 1, pp. 89-99.
- Cameron, M. H. (1987) 'The effectiveness of Australian Design Rules aimed at occupant protection', *Proceedings, seminar on Structural Crashworthiness and Property Damage Accidents*, Department of Civil Engineering, Monash University, Melbourne, Australia.
- Cameron, M.H., Mach, T., Neiger, D., Graham, A., Ramsay, R., Pappas, M. & Haley, J. (1992a) 'Vehicle Crashworthiness Ratings in Australia', *Proceedings, International Conference on the Biomechanics of Impacts*, Verona, Italy, pp. 105-119.
- Cameron, M.H., Mach, T. & Neiger, D. (1992b) *Vehicle Crashworthiness Ratings: Victoria 1983-90 and NSW 1989-90 Crashes - Summary Report*, Report No. 28, Monash University Accident Research Centre, Melbourne, Australia.
- Cameron, M.H., Finch, C.F. & Le, T. (1994a) *Vehicle Crashworthiness Ratings: Victoria and NSW Crashes During 1987-92 - Summary Report*, Report No. 55, Monash University Accident Research Centre, Melbourne, Australia.
- Cameron, M.H., Finch, C.F. & Le, T. (1994b) *Vehicle Crashworthiness Ratings: Victoria and NSW Crashes During 1987-92 - Technical Report*, Report No. 58, Monash University Accident Research Centre, Melbourne, Australia.
- Cameron, M.H., Newstead, S.V., Le, T. & Finch, C. (1994c) *Relationship between vehicle crashworthiness and year of manufacture*, Report No. 94/6 Royal Automobile Club of Victoria Ltd, Melbourne, Australia.
- Cameron, M.H., Finch, C., Newstead, S., Le, T., Graham, A., Griffiths, M., Pappas, M. & Haley, J. (1995) 'Measuring Crashworthiness: Make/Model Ratings and the Influence of Australian Design Rules for Motor Vehicle Safety', *Proceedings, International Conference on the Biomechanics of Impacts*, Brunnen, Switzerland, pp. 297-310.
- Cameron, M.H., Newstead, S.V. & Le, C.M. (1998) 'Rating the aggressivity of Australian passenger vehicles towards other vehicle occupants and unprotected road users', *Proceedings, International IRCOBI Conference on the Biomechanics of Impact*, Gothenborg, Sweden.
- Green, P. (1990) *Victorian Road Accident Database: Frequency Tables for Accident Data Fields: 1988*, Accident Studies Section, VicRoads, Melbourne, Australia.
- Gustafsson, H., Hagg, A., Krafft, M., Kullgren, A., Malmstedt, B., Nygren, A. & Tingvall, C. (1989) *Folksam Car Model Safety Rating 1989-90*, Folksam, Stockholm, Sweden.
- Hollowell, W.T. & Gabler, H.C. (1996) 'NHTSA's Vehicle Aggressivity and Compatibility Research Program', *Proceedings, Fifteenth International Technical Conference on the Enhanced Safety of Vehicles*, Melbourne, Australia.

- Hosmer, D.W. & Lemeshow, S. (1989) *Applied Logistic Regression*, Wiley, New York.
- LTSA (1998) *Motor Accidents in New Zealand 1998*, Land Transport Safety Authority, Wellington, New Zealand.
- Newstead, S., Cameron, M. & Skalova, M. (1996) *Vehicle Crashworthiness Ratings: Victoria and NSW Crashes During 1987-94*, Report No. 92, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S., Cameron, M. & Le, C.M. (1997) *Vehicle Crashworthiness Ratings and Crashworthiness by Year of Manufacture: Victoria and NSW crashes during 1987-95*, Report No. 107, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S., Cameron, M. & Le, C.M. (1998) *Vehicle Crashworthiness Ratings and Crashworthiness by Year of Manufacture: Victoria and NSW crashes during 1987-96*, Report No. 128, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S., Cameron, M.H. & Le, C.M. (1999) *Vehicle Crashworthiness Ratings and Crashworthiness by Year of Manufacture: Victoria and NSW Crashes During 1987-97, Queensland Crashes During 1991-96*, Report No. 150, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S., Cameron, M.H. & Le, C.M. (2000a) *Vehicle Crashworthiness Ratings and Crashworthiness by Year of Manufacture: Victoria and NSW Crashes During 1987-98 Queensland Crashes During 1991-98*, Report No. 171, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S. (2000b). *Review of the New Zealand Land Transport Safety Authority feasibility study into producing crashworthiness ratings for New Zealand vehicles*. Report to the New Zealand Land Transport Safety Authority, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S. & Cameron, M. (2001), 'Trends in Australian vehicle crashworthiness by year of vehicle manufacture within vehicle market groups', *Proceedings of the 2001 IRCOB Conference*, Isle of Man, UK.
- Newstead, S., Cameron, M., Watson, L. and Delaney, A. (2003a) *Vehicle Crashworthiness Ratings and Crashworthiness by Year of Manufacture: Victoria and NSW Crashes During 1987-2000 Queensland and Western Australian Crashes During 1991-2000*, Report No. 196, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S., Delaney, A. and Watson, L. (2003b) *Vehicle safety ratings estimated from combined Australian and New Zealand real crash data: Pilot Study*, Report No. 203, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S., Watson, L. and Cameron, M. (2004a) *Trends in aggressivity of the Australian light vehicle fleet by year of manufacture and market group: 1964 to 2000*, Report No. 214, Monash University Accident Research Centre, Melbourne, Australia.
- Newstead, S., Cameron, M., and Watson, L. (2004b) *Vehicle Crashworthiness Ratings and Crashworthiness by Year of Manufacture: Victoria and NSW Crashes During 1987-2002 Queensland, Western Australian and New Zealand Crashes During 1991-2002*, Report No. 222, Monash University Accident Research Centre, Melbourne, Australia.

Newstead, S., Watson, L., Delaney, A. and. Cameron, M. (2004c) *Crashworthiness and aggressivity of the Australian light vehicle fleet by major crash type*, Report No. 227, Monash University Accident Research Centre, Melbourne, Australia.

Newstead, S. and Watson, L. (2005a) *Trends in crashworthiness of the New Zealand vehicle fleet by year of manufacture: 1964 to 2002*, Report No. 238, Monash University Accident Research Centre, Melbourne, Australia.

Newstead, S., Cameron, M., and Watson, L. (2005b) *Vehicle safety ratings estimated from police reported crash data: 2005 update Australian and New Zealand crashes during 1987-2003*, Report No. 241, Monash University Accident Research Centre, Melbourne, Australia.

Newstead, S., Cameron, M., and Watson, L. (2006) *Vehicle safety ratings estimated from police reported crash data: 2006 update Australian and New Zealand crashes during 1987-2004*, Report No. 248, Monash University Accident Research Centre, Melbourne, Australia.

Newstead, S., Watson, L., and Cameron, M. (2007a) *Vehicle safety ratings estimated from police reported crash data: 2007 update Australian and New Zealand crashes during 1987-2005*, Report No. 266, Monash University Accident Research Centre, Melbourne, Australia.

Newstead, S., Watson, L., and Cameron, M. (2007b) *Trends in crashworthiness of the New Zealand vehicle fleet by year of manufacture: 1964 to 200: Supplementary to report 266 vehicle safety ratings estimated from police reported crash data: 2007 update Australian and New Zealand crashes during 1987-2005*, Report No. 266 Supplement, Monash University Accident Research Centre, Melbourne, Australia.

Newstead, S., Watson, L., and Cameron, M. (2007c) *An index for total secondary safety of light passenger vehicles estimated from police reported crash data*, Report No. 273, Monash University Accident Research Centre, Melbourne, Australia.

Pappas, M. (1993) *NSW Vehicle Occupant Protection Ratings Documentation*, Report to NRMA Ltd. and Road Safety Bureau, Roads and Traffic Authority, Sydney, NSW.

Road Safety Council of Western Australia (2001) *Reported road crashes in Western Australia, 2000*, Road Safety Council of Western Australia, Office of Road Safety, Perth, Australia.

Robinson, T. (2000a) *Vehicle crashworthiness feasibility study. Clustering guide and methodology* Land Transport Safety Authority, Wellington, New Zealand.

Robinson, T. (2000b) *Assessment of the fit between the New Zealand fleet and MUARC classes* Land Transport Safety Authority, Wellington, New Zealand.

SAS Inc. (1989) *SAS STAT Users Guide, Version 6, Fourth Edition, Volume 2*. Carey, NC: SAS Institute.

Social Development Committee (1990) *Inquiry into Vehicle Occupant Protection*, Parliament of Victoria, Melbourne, Australia.

Voyce, T. (2000) *Crashworthiness study - data entry* Land Transport Safety Authority, Wellington, New Zealand.

**MAKES AND MODELS OF CARS INVOLVED IN
VICTORIAN AND NSW CRASHES DURING 1987-2006,
SOUTH AUSTRALIA CRASHES DURING 1995-2006
AND
WESTERN AUSTRALIA, QUEENSLAND
AND NEW ZEALAND CRASHES DURING 1991-2006**

FREQUENCY FOR EACH MODEL FOR ALL TYPES OF CRASHES (NSW/VIC/SA/QLD/WA/NZ)

Note: Only those models with a Market Group displayed were used in the crashworthiness analysis

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2005) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Alfa Romeo	164	89-92	AL01Z	111	11	122	10	5	15	0	
Alfa Romeo	33	83-92	AL02Z	680	110	790	114	30	144	1	Small
Alfa Romeo	75	86-92	AL03Z	208	29	237	26	4	30	1	Small
Alfa Romeo	90	85-88	AL04Z	82	11	93	9	5	14	0	
Alfa Romeo	GTV	82-84	AL05Z	160	18	178	13	10	23	1	Small
Alfa Romeo	Sprint	82-88	AL06Z	131	23	154	30	5	35	1	Small
Alfa Romeo	Alfasud	82-84	AL07Z	114	22	136	18	6	24	1	Small
Alfa Romeo	Alfetta	82-88	AL08Z	57	12	69	4	6	10	0	
Alfa Romeo	Guilietta	82-86	AL09Z	64	8	72	7	2	9	0	
Alfa	Quattro		AL10Z	1	0	1	1	0	1	0	
Alfa Romeo	156	99-06	AL13Z	301	51	352	29	4	33	1	Medium
Alfa Romeo	166	99-06	AL14Z	28	3	31	1	1	2	0	
Alfa Romeo	GTV / Spider	98-04	AL15Z	105	11	116	4	1	5	0	
Alfa Romeo	147	01-05	AL16Z	112	16	128	7	2	9	0	
Alfa	Others		AL99Z	516	64	580	153	40	193	0	
Audi	A4 / S4 Cabriolet	02-05	AU10Z	15	3	18	5	0	5	0	
Audi	A6/S6/AllRoad	95-04	AUD1A	43	5	48	7	1	8	0	
			AUD1Z	2	0	2	1	0	1	0	
Audi	A8	95-03	AUD2Z	7	4	11	3	0	3	0	
Audi	A4	95-01	AUD3Z	706	88	794	85	18	103	1	Medium
Audi	A8/S8/A6		AUD4Z	91	5	96	14	1	15	0	
Audi	A3/S3	97-04	AUD5Z	296	55	351	39	3	42	1	Small
Audi	TT	99-06	AUD6Z	85	8	93	8	0	8	0	

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Audi	A4	01-05	AUD7Z	378	54	432	28	5	33	1	Small
Audi	A8	03-05	AUD9Z	1	0	1	0	0	0	0	
Audi	Others		AUDIZ	1381	230	1611	213	61	274	0	
Bmw	Z3 E36	97-03	BM10Z	185	24	209	22	8	30	1	Medium
Mini	Mini Cooper	02-05	BM11Z	94	15	109	22	3	25	1	Small
BMW	Z4	03-05	BM12Z	19	3	22	2	1	3	0	
BMW	5 Series E60	03-05	BM13Z	48	13	61	8	2	10	0	
BMW	X5	01-05	BM14Z	185	25	210	11	0	11	0	
BMW	6 Series E63	04-05	BM15Z	1	1	2	0	0	0	0	
BMW	1 Series E87	04-05	BM17Z	34	7	41	0	0	0	0	
BMW	3 Series E90	05-05	BM18Z	69	13	82	6	1	7	0	
BMW	3 Series E30	82-91	BM3 A	3522	558	4080	603	122	725	1	Medium
BMW	3 Series E36	92-98	BM3 B	4520	770	5290	685	130	815	1	Medium
BMW	3 Series E46	99-04	BM3 C	1770	335	2105	245	38	283	1	Medium
BMW	3 Others		BM3 Z	111	48	159	49	11	60	0	
BMW	5 Series E28	82-88	BM5 A	959	118	1077	109	27	136	1	Medium
BMW	5 Series E34	89-95	BM5 B	785	118	903	124	31	155	1	Medium
BMW	5 Series E39	96-03	BM5 C	652	71	723	75	16	91	1	Medium
BMW	5 Others		BM5 Z	27	11	38	10	3	13	0	
BMW	6 Series E24	86-89	BM6 Z	6	0	6	1	0	1	0	
BMW	7 Series E23	82-88	BM7 A	283	30	313	37	8	45	1	Large
BMW	7 Series E32	89-94	BM7 B	203	27	230	35	9	44	1	Large
BMW	7 Series E38	95-01	BM7 C	165	16	181	22	3	25	1	Large
BMW	7 Series E65/66	02-05	BM7 D	25	6	31	2	1	3	0	
BMW	7 Others		BM7 Z	13	3	16	2	1	3	0	
BMW	8 Series E31	90-99	BM8 Z	21	1	22	1	0	1	0	
BMW	Others		BM99Z	1194	202	1396	252	63	315	0	
Chrysler	Voyager	97-06	CHR1Z	416	63	479	49	7	56	1	People Mover
Chrysler	Neon	96-99	CHR2Z	434	82	516	70	14	84	1	Small

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Chrysler	Neon	00-02	CHR3Z	82	17	99	15	4	19	0	
Chrysler	PT Cruiser	00-06	CHR4Z	86	22	108	19	4	23	1	Medium
Chrysler	Crossfire	03-05	CHR6Z	6	1	7	0	0	0	0	
Chrysler	300C	06-06	CHR7Z	6	5	11	3	0	3	0	
Chrysler	Others		CHRYZ	16	1	17	9	0	9	0	
Citroen	BX	86-94	CI1 Z	85	4	89	29	6	35	0	
Citroen	C3 Pluriel	04-04	CI10Z	4	1	5	1	0	1	0	
Citroen	C4	05-05	CI11Z	12	1	13	2	0	2	0	
Citroen	C2	04-05	CI12Z	3	1	4	0	0	0	0	
Citroen	AX	91-93	CI3 Z	5	1	6	13	4	17	0	
Citroen	Xantia	94-00	CI4 Z	51	14	65	16	4	20	0	
Citroen	Berlingo	99-06	CI5 Z	89	10	99	4	2	6	0	
Citroen	Xsara	00-05	CI6 Z	60	17	77	12	1	13	0	
Citroen	XM	91-00	CI7 Z	7	1	8	1	1	2	0	
Citroen	C5	01-05	CI8 Z	52	8	60	1	0	1	0	
Citroen	C3	02-05	CI9 Z	37	9	46	4	1	5	0	
Citroen	Others		CI99Z	58	3	61	3	1	4	0	
			COM Z	6	0	6	0	0	0	0	
			COMUZ	4	0	4	0	0	0	0	
Daihatsu	Charade	82-86	D1 A	1913	576	2489	661	194	855	1	Light
	Charade		D1 B	326	101	427	153	28	181	0	
Daihatsu	Charade	88-92	D1 C	6864	1925	8789	1373	362	1735	1	Light
Daihatsu	Charade	93-00	D1 D	6374	1640	8014	1022	260	1282	1	Light
	Charade		D1 Z	260	163	423	117	38	155	0	
Daihatsu	Feroza / Rocky	89-97	D11 Z	1014	215	1229	174	53	227	1	4WD - Compact
Daihatsu	Handivan	82-90	D12 Z	682	287	969	230	60	290	1	Commercial - Van
Daihatsu	Hi-Jet	82-90	D13 Z	134	74	208	66	22	88	1	Commercial - Van
Daihatsu	Rocky / Rugger	85-98	D14 Z	516	144	660	95	49	144	1	4WD - Compact
Daihatsu	Pyzar	97-01	D15 Z	294	76	370	50	14	64	1	Light

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Daihatsu	Move	97-99	D16 Z	69	24	93	20	7	27	0	
Daihatsu	Sirion / Storia	98-04	D17 Z	1104	350	1454	255	54	309	1	Light
Daihatsu	Terios	97-05	D18 Z	537	215	752	167	41	208	1	4WD - Compact
Daihatsu	Handivan / Cuore	99-03	D19 Z	162	67	229	48	10	58	1	Commercial - Van
Daihatsu	Applause	89-99	D2 Z	3074	745	3819	526	125	651	1	Small
Daihatsu	YRV	01-04	D20 Z	5	5	10	5	1	6	0	
Daihatsu	Charade	03-05	D21 Z	26	7	33	7	0	7	0	
Daihatsu	Copen	03-05	D22 Z	4	4	8	4	2	6	0	
Daihatsu	Sirion / Storia	05-05	D23 Z	12	3	15	0	0	0	0	
Daihatsu	Mira	90-96	D3 Z	683	302	985	263	84	347	1	Light
Daihatsu	Delta		D4 Z	1446	218	1664	121	43	164	0	
Daihatsu	F20/25/50/55/60/65		D5 Z	77	32	109	18	10	28	0	
Daihatsu	Others		D99 Z	1144	354	1498	365	111	476	0	
Daewoo	1.5i	94-95	DA01Z	200	64	264	56	8	64	1	Small
Daewoo	Cielo	95-97	DA03Z	3377	1015	4392	763	167	930	1	Small
Daewoo	Espero	95-97	DA05Z	708	204	912	147	40	187	1	Medium
Daewoo	Nubira	97-03	DA06Z	2320	541	2861	434	92	526	1	Small
Daewoo	Lanos	97-03	DA07Z	3736	1057	4793	790	195	985	1	Small
Daewoo	Leganza	97-02	DA08Z	579	108	687	84	19	103	1	Medium
Daewoo / Ssang	Musso	98-02	DA09Z	229	25	254	25	10	35	1	4WD - Medium
Daewoo	Matiz	99-04	DA10Z	513	246	759	201	40	241	1	Light
Daewoo	Tacuma	00-04	DA11Z	61	18	79	8	6	14	0	
Daewoo	Lacetti	03-04	DA12Z	68	22	90	13	3	16	0	
Daewoo	Kalos	03-04	DA13Z	180	59	239	38	15	53	1	Light
Ssangyong	Rexton	03-05	DA14Z	14	2	16	3	0	3	0	
Ssangyong	Korando	04-05	DA15Z	4	1	5	2	0	2	0	
Ssangyong	Stavic	05-05	DA17Z	3	1	4	1	0	1	0	
Ssangyong	Kyron	06-06	DA18Z	1	1	2	1	0	1	0	
Daewoo	Others		DA99Z	50	18	68	16	2	18	0	

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Ford	Laser/Met 90		F01 B	6354	1443	7797	1479	329	1808	0	
Ford	Laser	91-94	F01 C	14383	3243	17626	3026	694	3720	1	Small
Ford	Laser	95-97	F01 D	4055	924	4979	765	192	957	1	Small
Ford	Laser/Met Others		F01 Z	850	469	1319	357	93	450	0	
Ford	Cortina	82-82	F02 Z	29	11	40	305	80	385	0	
Ford	Telstar Others		F04 Z	265	123	388	93	25	118	0	
Ford	Escort	82-82	F05 Z	30	3	33	3	1	4	0	
Ford	Falcon XE/XF	82-88	F06 Z	59233	9941	69174	8993	2799	11792	1	Large
Ford	Fairlane Z & LTD F	82-87	F07 Z	6191	1008	7199	942	279	1221	1	Large
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	F08 C	46278	7549	53827	6628	1847	8475	1	Large
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	F08 D	19794	3126	22920	2699	778	3477	1	Large
Ford	Falcon Others		F08 Z	643	168	811	252	65	317	0	
Ford	Fairlane N & LTD D	88-94	F09 A	4746	681	5427	639	193	832	1	Large
Ford	Fairlane N & LTD D	95-98	F09 B	1677	253	1930	226	68	294	1	Large
Ford	Fairlane & LTD AU	99-02	F09 C	875	133	1008	90	17	107	1	Large
Ford	Fairlane & LTD BA/BF	03-05	F09 D	166	23	189	10	6	16	0	
Fairlane	N<D D Others		F09 Z	13	2	15	2	0	2	0	
Ford	Mondeo	95-01	F10 Z	2034	338	2372	426	74	500	1	Medium
Ford	Capri	89-94	F43 Z	1595	423	2018	371	78	449	1	Small
Ford	Festiva WD/WH/WF	94-01	F44 B	12125	3792	15917	2805	701	3506	1	Light
			F44AZ	29	15	44	10	5	15	0	
Ford	Falcon Panel Van	82-95	F45 A	4293	535	4828	450	106	556	1	Commercial - Van
Ford	Falcon Panel Van	96-99	F45 B	544	59	603	67	12	79	1	Commercial - Van
Ford	Falcon Panel Van Others		F45 Z	4	0	4	1	0	1	0	
Ford / Nissan	Falcon Ute / XFN Ute	82-95	F46 A	11053	1623	12676	1159	403	1562	1	Commercial - Ute
Ford	Falcon Ute	96-99	F46 B	2274	359	2633	274	85	359	1	Commercial - Ute
Ford	Falcon Ute 99		F46 C	672	102	774	88	23	111	0	
Ford	Falcon Ute AU	00-02	F46 D	2023	278	2301	253	70	323	1	Commercial - Ute
Ford	Falcon Ute BA/BF	03-05	F46 E	1024	130	1154	128	31	159	1	Commercial - Ute

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Ford	Falcon Ute Others		F46 Z	13	1	14	0	0	0	0	
Ford	Ford F-Series	82-92	F47 Z	997	129	1126	103	24	127	1	Commercial - Ute
Ford	Spectron	86-90	F52 Z	47	15	62	25	4	29	0	
Ford	Trader		F53 Z	866	80	946	62	16	78	0	
Ford	Commercials		F54 Z	12184	2194	14378	1666	456	2122	0	
Ford	Sierra		F55 Z	3	1	4	1	0	1	0	
Ford	Bronco	82-87	F56 Z	187	23	210	14	10	24	1	4WD - Large
Ford	Probe	94-98	F61 Z	234	45	279	51	10	61	1	Medium
Ford	Falcon EF/EL	94-98	F62 Z	41661	6993	48654	5739	1504	7243	1	Large
Ford	Transit	95-00	F64 A	1053	124	1177	102	26	128	1	Commercial - Van
Ford	Transit	01-05	F64 B	370	38	408	57	10	67	1	Commercial - Van
			F64 Z	34	5	39	28	6	34	0	
Ford	Explorer	00-01	F65 Z	315	73	388	67	25	92	1	4WD - Large
Ford	Falcon AU	98-02	F66 Z	18391	3371	21762	2586	617	3203	1	Large
Ford	Taurus	96-98	F67 Z	414	82	496	67	19	86	1	Large
Ford	Ka	99-02	F68 Z	331	101	432	92	20	112	1	Light
Ford	Cougar	99-03	F69 Z	207	40	247	30	8	38	1	Medium
			F70 Z	411	67	478	48	24	72	0	
Ford	Mustang	01-03	F71 Z	9	1	10	1	1	2	0	
Ford	Explorer	01-05	F72 Z	152	20	172	29	4	33	1	4WD - Large
Ford	Falcon BA/BF	02-05	F73 Z	5511	972	6483	753	170	923	1	Large
Ford	Focus LR	02-05	F75 Z	662	172	834	166	31	197	1	Small
Ford	F-Series	01-05	F76 Z	128	12	140	6	4	10	0	
Ford	Territory SX/SY	04-05	F77 Z	285	39	324	32	11	43	1	4WD - Medium
Ford	Fiesta WP/WQ	04-05	F78 Z	29	8	37	9	0	9	0	
Ford	Focus LS	05-05	F79 Z	124	23	147	25	3	28	1	Small
Ford	Others		F99 Z	45645	7088	52733	11647	3741	15388	0	
			FAL Z	3	0	3	0	0	0	0	
Ferrari			FERAZ	11	0	11	1	0	1	0	

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Fiat	Argenta	83-85	FI01Z	13	4	17	3	1	4	0	
Fiat	Croma	88-89	FI02Z	22	5	27	9	1	10	0	
Fiat	Regata	84-88	FI03Z	243	33	276	27	7	34	1	Small
Fiat	Superbrava	82-85	FI04Z	48	15	63	9	6	15	0	
Fiat	X-1/9		FI05Z	6	3	9	2	1	3	0	
Fiat	X-1/9	82-85	FI11Z	5	1	6	1	0	1	0	
Fiat	Ducato	02-05	FI12Z	21	3	24	9	2	11	0	
Fiat	Punto	06-06	FI13Z	1	0	1	0	0	0	0	
Fiat	Others		FI99Z	150	17	167	49	10	59	0	
Fsm			FSM Z	13	2	15	6	1	7	0	
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	H1 Z	59179	10652	69831	8906	2892	11798	1	Large
Holden	Calibra	94-97	H12 Z	435	55	490	87	15	102	1	Medium
Holden	Statesman/Caprice WB	82-85	H14 A	139	23	162	32	18	50	1	Large
Holden	Stateman/Caprice VQ	90-93	H14 B	714	106	820	98	42	140	1	Large
Holden	Stateman/Caprice VR/VS	94-98	H14 C	3816	592	4408	500	138	638	1	Large
Statesman/Capri	Others		H14 Z	131	21	152	18	3	21	0	
Holden	Nova Others		H15 Z	120	33	153	33	7	40	0	
Holden	Commodore Ute VG/VP	90-93	H18 Z	1860	322	2182	207	91	298	1	Commercial - Ute
Holden	Camira	82-89	H2 Z	15753	3603	19356	3720	940	4660	1	Medium
Holden / Isuzu	Jackaroo / Bighorn	82-91	H21 A	865	183	1048	225	42	267	1	4WD - Medium
Holden / Isuzu	Jackaroo / Bighorn	92-97	H21 B	707	106	813	126	33	159	1	4WD - Medium
Holden / Isuzu	Jackaroo / Bighorn	98-02	H21 C	620	104	724	81	21	102	1	4WD - Medium
Holden	Jackaroo		H21 Z	47	9	56	49	14	63	0	
Holden	Kingswood		H22 Z	30	6	36	3	6	9	0	
Holden / Isuzu	Piazza	86-88	H23 Z	55	9	64	17	2	19	0	
Holden / Isuzu	Rodeo / Pickup	82-85	H24 A	790	134	924	116	34	150	1	Commercial - Ute
Holden / Isuzu	Rodeo / Pickup	86-88	H24 B	434	71	505	62	9	71	1	Commercial - Ute
Holden / Isuzu	Rodeo / Pickup	89-95	H24 C	6655	1119	7774	772	280	1052	1	Commercial - Ute
Holden	Rodeo	96-98	H24 D	2640	489	3129	353	110	463	1	Commercial - Ute

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Holden	Rodeo	99-02	H24 E	2433	465	2898	312	105	417	1	Commercial - Ute
			H24 F	48	12	60	11	1	12	0	
Holden	Rodeo Others		H24 Z	189	46	235	41	10	51	0	
Holden	Shuttle / WFR Van	82-87	H26 Z	520	105	625	76	28	104	1	Commercial - Van
Holden	WB Series	82-85	H27 Z	1851	275	2126	170	92	262	1	Commercial - Ute
Holden	Torana/Sunbird		H28 Z	10	0	10	1	0	1	0	
Holden	Gemini	82-84	H3 A	6195	1457	7652	1511	376	1887	1	Small
Holden	Gemini 85		H3 B	1253	319	1572	318	76	394	0	
Holden	Gemini RB	86-87	H3 C	1013	306	1319	296	65	361	1	Small
Holden	Gemini Others		H3 Z	1	0	1	0	0	0	0	
Holden	Commodore Others		H31 Z	35	1	36	14	1	15	0	
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	H33 Z	52130	8721	60851	7068	1902	8970	1	Large
Holden	Commodore Ute VR/VS	94-00	H34 Z	7364	1266	8630	843	346	1189	1	Commercial - Ute
Holden	Frontera / Mu	95-03	H35 Z	306	54	360	45	13	58	1	4WD - Medium
Holden	Vectra	97-03	H36 Z	2692	561	3253	528	88	616	1	Medium
Holden	Commodore VT/VX	97-02	H37 Z	34120	6363	40483	4999	1145	6144	1	Large
Holden	Suburban	98-00	H38 Z	33	6	39	6	0	6	0	
Holden	Statesman/Caprice WH	99-03	H39 Z	980	138	1118	105	20	125	1	Large
Holden	Astra Jap 87		H4 B	928	179	1107	175	53	228	0	
Holden	Astra TR	96-98	H4 D	1102	206	1308	230	41	271	1	Small
Holden	Astra TS	98-06	H4 E	6066	1426	7492	1090	197	1287	1	Small
Holden	Astra Others		H4 Z	61	26	87	30	7	37	0	
Holden	Commodore VU Ute	00-02	H41 Z	1552	244	1796	184	72	256	1	Commercial - Ute
Holden	Commodore VY/VZ	02-05	H42 Z	6927	1341	8268	1084	206	1290	1	Large
Holden	Commodore VY/VZ Ute	02-05	H43 Z	1878	312	2190	231	83	314	1	Commercial - Ute
Holden	Monaro	01-05	H44 Z	397	79	476	59	20	79	1	Large
Holden	Cruze	02-05	H45 Z	280	107	387	83	30	113	1	4WD - Compact
Holden	Barina XC	01-05	H46 Z	1411	387	1798	289	60	349	1	Light
Holden	Zafira TT	01-05	H47 Z	166	35	201	20	5	25	1	People Mover

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Holden	Statesman/Caprice WK/WL	03-05	H48 Z	255	52	307	34	6	40	1	Large
Holden	Adventra	03-05	H49 Z	81	17	98	20	1	21	0	
Holden	Barina SB	95-00	H5 D	6077	1751	7828	1235	254	1489	1	Light
Holden	Barina Others		H5 Z	254	109	363	140	24	164	0	
Holden	Rodeo	03-05	H50 Z	1381	221	1602	133	43	176	1	Commercial - Ute
Holden	Vectra ZC	03-05	H51 Z	159	27	186	34	7	41	1	Medium
Holden	Astra AH	04-05	H55 Z	292	64	356	44	6	50	1	Small
Holden	Barina TK	05-05	H56 Z	74	14	88	10	6	16	0	
Holden	Viva JF	05-05	H57 Z	56	16	72	19	4	23	0	
Holden	Tigra	05-05	H58 Z	2	1	3	1	0	1	0	
Holden	Captiva	06-06	H59 Z	1	1	2	1	0	1	0	
Holden	Commodore VB-VL	82-88	H6 Z	53024	9610	62634	8738	2774	11512	1	Large
Holden	Commodore VE	06-06	H60 Z	31	4	35	3	0	3	0	
Holden	Statesman/Caprice WM	06-06	H61 Z	5	1	6	1	0	1	0	
Holden	Others		H99 Z	34683	4832	39515	9769	3476	13245	0	
Hyundai	Excel	86-90	HY1 A	2937	846	3783	911	236	1147	1	Small
Hyundai	Excel	90-94	HY1 B	9231	2599	11830	2108	513	2621	1	Small
Hyundai	Excel / Accent	95-00	HY1 C	22499	6574	29073	4776	1009	5785	1	Small
Hyundai	Excel Others		HY1 Z	338	147	485	119	35	154	0	
Hyundai	Trajet	00-06	HY10Z	19	4	23	5	1	6	0	
Hyundai	Elantra	00-06	HY11Z	1359	325	1684	209	45	254	1	Medium
Hyundai	Santa Fe	00-06	HY12Z	234	52	286	39	8	47	1	4WD - Medium
Hyundai	Getz	02-05	HY13Z	1073	301	1374	194	58	252	1	Light
Hyundai	Sonata	98-01	HY15A	758	158	916	109	27	136	1	Large
Hyundai	Sonata EF	02-05	HY15B	134	32	166	18	2	20	1	Large
			HY15Z	3	1	4	3	1	4	0	
Hyundai	Tiburon	02-04	HY16Z	31	9	40	7	1	8	0	
Hyundai	Terracan	01-05	HY17Z	101	14	115	10	2	12	0	
Hyundai	Elantra Lavita	01-03	HY18Z	34	4	38	14	1	15	0	

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Hyundai	Tucson	04-05	HY19Z	61	9	70	8	3	11	0	
Hyundai	Sonata	89-97	HY2 Z	3382	684	4066	597	125	722	1	Large
Hyundai	Sonata NF	05-05	HY20Z	24	9	33	8	0	8	0	
Hyundai	Grandeur TG	06-06	HY21Z	2	0	2	0	0	0	0	
Hyundai	Accent	06-06	HY22Z	10	0	10	0	0	0	0	
Hyundai	S Coupe	90-96	HY4 Z	1298	334	1632	273	59	332	1	Small
Hyundai	Lantra	91-95	HY5 A	2206	525	2731	383	95	478	1	Medium
Hyundai	Lantra	96-00	HY5 B	3882	869	4751	693	149	842	1	Medium
Hyundai	Lantra Others		HY5 Z	49	13	62	15	2	17	0	
Hyundai	Coupe	96-00	HY7 Z	789	175	964	131	36	167	1	Small
Hyundai	Grandeur / XG	99-00	HY8 Z	276	39	315	26	2	28	1	Large
Hyundai	Accent	00-06	HY9 Z	3311	892	4203	607	142	749	1	Small
Hyundai	Others		HY99Z	1074	283	1357	705	272	977	0	
Mitsubishi	Mirage / Colt	82-88	I01 Z	11943	3211	15154	3150	765	3915	1	Light
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	I02 Z	12665	2228	14893	2803	694	3497	1	Medium
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	I04 Z	29424	5058	34482	4745	1290	6035	1	Large
Mitsubishi	Charger/Valiant		I05 Z	32	3	35	2	1	3	0	
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	I06 A	16654	2739	19393	2251	481	2732	1	Large
			I06 Z	1	2	3	2	0	2	0	
Mitsubishi	Starion	82-87	I07 Z	175	33	208	46	23	69	1	Medium
Mitsubishi	Lancer / Mirage CA	89-90	I09 A	5327	1049	6376	1200	275	1475	1	Small
Mitsubishi	Lancer / Mirage CB	91-92	I09 B	917	216	1133	338	62	400	1	Small
Mitsubishi	Lancer / Mirage CC	93-95	I09 C	7186	1513	8699	1424	321	1745	1	Small
Mitsubishi	Lancer / Mirage CE	96-03	I09 D	15554	3857	19411	2851	556	3407	1	Small
Mitsubishi	Lancer Others		I09 Z	3	0	3	437	94	531	0	
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	I10 A	499	100	599	204	40	244	1	People Mover

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Mitsubishi	Nimbus / Chariot	92-98	I10 B	804	165	969	186	31	217	1	People Mover
Mitsubishi	Nimbus	99-03	I10 C	254	35	289	23	5	28	1	People Mover
Mitsubishi	Cordia	83-87	I12 Z	1741	343	2084	555	148	703	1	Small
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	I15 Z	27153	4254	31407	4012	858	4870	1	Large
Mitsubishi	Galant	89-93	I16 A	14	1	15	448	97	545	0	
Mitsubishi	Galant	95-96	I16 B	1579	288	1867	350	81	431	1	Medium
Mitsubishi	Galant Others		I16 Z	9	11	20	332	78	410	0	
Mitsubishi	Canter		I21 Z	1318	138	1456	155	45	200	0	
Mitsubishi	Starwagon / L300	83-86	I23 A	3161	715	3876	587	200	787	1	People Mover
Mitsubishi	Starwagon / Delica Starwagon	87-93	I23 B	6173	1083	7256	893	252	1145	1	People Mover
Mitsubishi	Starwagon / Delica Spacegear	95-98	I23 C	1775	266	2041	219	47	266	1	People Mover
Mitsubishi	Starwagon / Delica Spacegear	98-03	I23 D	940	152	1092	107	34	141	1	People Mover
Mitsubishi	Starwagon Others		I23 Z	151	67	218	168	42	210	0	
Mitsubishi	Commercials		I24 Z	5014	872	5886	650	196	846	0	
Mitsubishi	Pajero	82-90	I25 A	2033	360	2393	392	124	516	1	4WD - Medium
Mitsubishi	PAJERO 91		I25 B	503	55	558	90	27	117	0	
Mitsubishi	Pajero	92-99	I25 C	3674	458	4132	422	110	532	1	4WD - Medium
Mitsubishi	Pajero NM / NP / NS	00-06	I25 D	842	84	926	77	19	96	1	4WD - Medium
Mitsubishi	Pajero Others		I25 Z	114	43	157	30	11	41	0	
Mitsubishi	3000GT	92-97	I26 Z	3	2	5	3	1	4	0	
Mitsubishi	Challenger	98-06	I30 Z	400	62	462	59	18	77	1	4WD - Medium
Mitsubishi	Pajero iO	99-03	I34 Z	62	13	75	9	3	12	0	
Mitsubishi	Lancer CE / CG	02-03	I37 Z	48	36	84	28	8	36	0	
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	I38 Z	697	115	812	97	11	108	1	Large
Mitsubishi	Outlander	03-05	I39 Z	158	32	190	20	3	23	1	4WD - Compact
Mitsubishi	Lancer CH	03-05	I40 Z	742	197	939	136	38	174	1	Small
Mitsubishi	Grandis	04-05	I42 Z	17	3	20	2	0	2	0	
Mitsubishi	Colt	04-05	I43 Z	53	6	59	14	7	21	0	

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Mitsubishi	380	05-05	I44 Z	79	7	86	7	1	8	0	
Mitsubishi	Triton MK	96-06	I45 Z	1092	117	1209	91	22	113	1	Commercial - Ute
Mitsubishi	Triton ML	06-06	I46 Z	3	1	4	1	0	1	0	
Mitsubishi	Outlander	06-06	I47 Z	2	0	2	0	0	0	0	
Mitsubishi	Others		I99 Z	28798	4820	33618	6714	1990	8704	0	
Isuzu	NKR Series		IS01Z	831	107	938	76	17	93	0	
Isuzu	NPR Series		IS02Z	1735	136	1871	87	27	114	0	
Isuzu	Others		IS99Z	2580	200	2780	211	89	300	0	
Jaguar	XJ6	82-86	J01 A	347	50	397	38	13	51	1	Large
Jaguar	XJ6	87-94	J01 B	467	56	523	55	11	66	1	Large
Jaguar	XJ6	95-97	J01 C	102	12	114	7	4	11	0	
Jaguar	XJ8	98-03	J01 D	10	1	11	1	0	1	0	
Jaguar	XJ6 Others		J01 Z	23	3	26	5	0	5	0	
Jaguar	V12 Saloon		J02 Z	11	2	13	2	0	2	0	
Jaguar	XJS	82-96	J04 Z	68	11	79	10	1	11	0	
Jaguar	XJR	95-03	J05 Z	4	0	4	1	0	1	0	
Jaguar	XK8 / XKR	96-05	J07 Z	29	3	32	3	1	4	0	
Jaguar	S-Type	99-06	J08 Z	116	10	126	10	0	10	0	
Jaguar	X-Type	02-05	J09 Z	69	8	77	8	2	10	0	
Jaguar	XJ	03-05	J10 Z	23	4	27	3	1	4	0	
Jaguar	Others		J99 Z	352	44	396	62	20	82	0	
Jaguar			JAG Z	4	1	5	2	1	3	0	
Jeep	Cherokee XJ	96-00	JE01Z	1095	153	1248	173	43	216	1	4WD - Medium
Jeep	Grand Cherokee ZG	96-99	JE02Z	242	26	268	38	10	48	1	4WD - Large
Jeep	Wrangler	96-04	JE03Z	248	33	281	42	15	57	1	4WD - Medium
Jeep	Grand Cherokee WJ/WG	99-05	JE04Z	153	17	170	36	6	42	1	4WD - Large
Jeep	Cherokee KJ	01-04	JE05Z	92	7	99	13	1	14	0	
Jeep	Grand Cherokee WH	05-05	JE06Z	14	0	14	0	0	0	0	
Jeep	Others		JEEPZ	146	23	169	31	7	38	0	

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Kia	Sportage	98-03	K01 Z	517	103	620	99	15	114	1	4WD - Compact
Kia	Ceres	92-00	K02 Z	794	211	1005	178	50	228	1	Commercial - Ute
Kia	Mentor	97-00	K03 Z	15	3	18	2	1	3	0	
Kia	Credos	98-01	K04 Z	44	19	63	13	3	16	0	
Kia	Rio	00-05	K05 Z	1256	396	1652	271	69	340	1	Small
Kia	Carens	00-02	K06 Z	36	14	50	7	2	9	0	
Kia	Carnival	99-06	K07 Z	588	82	670	70	8	78	1	People Mover
Kia	Spectra	01-04	K08 Z	157	51	208	33	9	42	1	Small
Kia	Optima	01-05	K09 Z	33	6	39	4	0	4	0	
Kia	K2700	02-05	K10 Z	36	4	40	7	4	11	0	
Kia	Pregio	02-05	K11 Z	282	60	342	45	12	57	1	Commercial - Van
Kia	Sorento	03-05	K12 Z	72	15	87	13	4	17	0	
Kia	Cerato	04-05	K13 Z	104	29	133	16	8	24	1	Small
Kia	Rio JB	05-05	K14 Z	33	13	46	11	2	13	0	
Kia	Sportage KM	05-05	K15 Z	9	0	9	1	0	1	0	
Kia	Magentis	06-06	K16 Z	1	0	1	0	0	0	0	
Kia	Carnival	06-06	K17 Z	6	1	7	1	0	1	0	
Lada			LADAZ	220	86	306	113	31	144	0	
Lancia			LANCZ	32	3	35	2	2	4	0	
Leyland			LEY Z	101	11	112	10	5	15	0	
Land Rover	Defender	92-06	LRO1Z	262	53	315	38	18	56	1	4WD - Medium
Land Rover	Discovery	91-02	LRO2A	821	138	959	127	29	156	1	4WD - Medium
Land Rover	Discovery	02-04	LRO2B	47	8	55	7	2	9	0	
			LRO2Z	349	62	411	57	18	75	0	
Land Rover	Rover Others		LROVZ	290	41	331	53	14	67	0	
Ford / Mazda	Laser / 323 / Familia	82-88	M01 A	42188	10898	53086	12532	3009	15541	1	Small
Mazda	323	89	M01 B	494	130	624	732	158	890	0	
Mazda	323 / Familia / Lantis	90-93	M01 C	3762	765	4527	1339	283	1622	1	Small
Mazda	323	94	M01 D	1150	235	1385	187	39	226	0	

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Mazda	323 / Familia / Lantis	95-98	M01 E	4294	929	5223	774	166	940	1	Small
Ford / Mazda	Laser / 323	99-03	M01 F	4318	1069	5387	797	152	949	1	Small
Mazda	323 Others		M01 Z	347	178	525	176	54	230	0	
Mazda	626/MX6 / Telstar	82	M02 A	11791	2519	14310	2632	752	3384	0	
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	M02 B	9284	1842	11126	2571	625	3196	1	Medium
Mazda	626/MX6 / Telstar	87	M02 C	2895	404	3299	334	84	418	0	
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	M02 D	5255	1051	6306	1534	342	1876	1	Medium
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	M02 E	5691	889	6580	1094	279	1373	1	Medium
Mazda	626	98-02	M02 F	1530	319	1849	285	64	349	1	Medium
Mazda	626/MX6 / Telstar Others		M02 Z	267	111	378	71	34	105	0	
Mazda	929 / Luce	82-90	M03 A	3258	588	3846	633	171	804	1	Large
Mazda	929	91	M03 B	206	32	238	40	9	49	0	
Mazda	929 / Sentia / Efini MS-9	92-96	M03 C	223	41	264	41	7	48	1	Large
Mazda	929 Others		M03 Z	86	41	127	29	11	40	0	
Ford / Mazda	Festiva WA / 121	87-90	M09 A	6328	1882	8210	1498	386	1884	1	Light
Mazda	121 / Autozam Review	94-96	M09 B	3178	923	4101	659	142	801	1	Light
Mazda	121 Metro / Demio	97-02	M09 C	2138	579	2717	467	97	564	1	Light
Mazda	121 / Ford Festiva WA Others		M09 Z	173	99	272	93	28	121	0	
Mazda	RX7	82-85	M10 A	631	120	751	121	38	159	1	Medium
Mazda	RX7	86-91	M10 B	363	48	411	88	25	113	1	Medium
Mazda	RX7	92-98	M10 C	75	12	87	21	8	29	0	
Mazda	RX7 Others		M10 Z	7	0	7	5	5	10	0	
Mazda	MX5 / Eunos Roadster	89-97	M11 A	449	101	550	87	18	105	1	Small
Mazda	MX5 / Eunos Roadster	98-05	M11 B	314	66	380	42	8	50	1	Small
Mazda	MX5 Others		M11 Z	6	9	15	10	2	12	0	
Mazda	Commercials		M14 Z	7648	1254	8902	1003	313	1316	0	
Mazda	MPV	94-99	M15 A	300	38	338	23	2	25	1	People Mover
Mazda	MPV	00-06	M15 B	136	17	153	9	2	11	0	
Mazda	MPV Others		M15 Z	5	1	6	1	0	1	0	

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Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	M16 Z	448	96	544	77	12	89	1	Small
Mazda	Eunos 500	93-99	M17 Z	272	63	335	59	9	68	1	Medium
Mazda	Eunos 800	94-00	M18 Z	98	14	112	17	3	20	1	Medium
Ford / Mazda	Escape / Tribute	01-05	M21 Z	735	130	865	108	27	135	1	4WD - Compact
Ford / Mazda	Courier / B-Series / Bounty	98-02	M22 A	1464	227	1691	199	69	268	1	Commercial - Ute
Ford / Mazda	Courier / Bravo / Bounty	03-05	M22 B	426	102	528	82	25	107	1	Commercial - Ute
Mazda	Bravo / Ford Courier Others		M22 Z	188	23	211	56	15	71	0	
Mazda	Premacy	01-03	M23 Z	2	0	2	1	1	2	0	
Mazda	2	02-05	M24 Z	286	77	363	52	18	70	1	Light
Mazda	6	02-05	M25 Z	304	72	376	88	13	101	1	Medium
Mazda	RX8	03-05	M26 Z	83	4	87	7	2	9	0	
Mazda	3	03-05	M27 Z	971	211	1182	159	23	182	1	Small
Mazda	MX5	05-05	M28 Z	3	1	4	2	0	2	0	
Ford / Mazda	Escape / Tribute	06-06	M31 Z	1	0	1	0	0	0	0	
Mazda	Others		M99 Z	11533	1937	13470	3189	897	4086	0	
Maserati			MASRZ	4	0	4	1	0	1	0	
Mercedes	100 Series		ME1 Z	204	29	233	33	8	41	0	
Mercedes	C180		ME10Z	46	11	57	10	2	12	0	
Mercedes Benz	C-Class W201	87-93	ME11Z	744	128	872	131	28	159	1	Medium
Mercedes Benz	C-Class W202	95-00	ME12Z	1265	179	1444	157	30	187	1	Medium
Mercedes Benz	CLK C208	97-03	ME13Z	171	28	199	17	6	23	1	Medium
Mercedes Benz	E-Class W123	82-85	ME14Z	411	61	472	41	11	52	1	Medium
Mercedes Benz	E-Class W124	86-94	ME15Z	1171	179	1350	157	31	188	1	Medium
Mercedes Benz	E-Class W210	96-02	ME16Z	661	82	743	71	17	88	1	Medium
Mercedes Benz	S-Class W107		ME17Z	36	7	43	8	0	8	0	
Mercedes Benz	S-Class W126	82-92	ME18Z	930	117	1047	99	25	124	1	Large
Mercedes Benz	S-Class R129	93-02	ME19Z	74	8	82	9	1	10	0	
Mercedes	200 Series		ME2 Z	349	27	376	40	17	57	0	

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Mercedes Benz	S-Class C140	93-98	ME20Z	203	11	214	10	1	11	0	
Mercedes Benz	SLK R170	97-04	ME21Z	143	29	172	18	2	20	1	Medium
Mercedes Benz	A-Class W168	98-04	ME22Z	256	54	310	34	5	39	1	Small
Mercedes Benz	MB100 / MB140	99-04	ME24Z	292	27	319	22	6	28	1	Commercial - Van
Mercedes Benz	S-Class W220	99-06	ME25Z	99	8	107	3	2	5	0	
Mercedes Benz	Vito / Viano	99-06	ME26Z	429	34	463	31	11	42	1	Commercial - Van
Mercedes Benz	M-Class W163	98-05	ME27Z	317	36	353	33	4	37	1	4WD - Large
Mercedes Benz	CL500/600 C215	98-00	ME28Z	8	0	8	1	0	1	0	
Mercedes Benz	C-Class W203	00-06	ME29Z	454	71	525	49	11	60	1	Medium
Mercedes	300 Series		ME3 Z	452	37	489	41	11	52	0	
Mercedes Benz	Sprinter	98-04	ME30Z	344	50	394	51	13	64	1	Commercial - Van
Mercedes Benz	G-Class	83-88	ME31Z	3	0	3	1	0	1	0	
Mercedes Benz	CLK C209	03-05	ME32Z	85	13	98	7	1	8	0	
Mercedes Benz	E-Class W211	02-05	ME33Z	133	17	150	8	0	8	0	
Mercedes Benz	S-Class R230	02-05	ME34Z	10	2	12	1	0	1	0	
Mercedes Benz	SLK R171	04-05	ME35Z	13	5	18	0	0	0	0	
Mercedes Benz	M-Class W164	05-05	ME36Z	11	0	11	0	0	0	0	
Mercedes Benz	A-Class W169	05-05	ME37Z	6	2	8	1	1	2	0	
Mercedes Benz	CLS W219	05-05	ME38Z	4	0	4	0	0	0	0	
Mercedes Benz	B-Class W245	05-05	ME39Z	4	0	4	0	0	0	0	
Mercedes	400 Series		ME4 Z	171	27	198	23	6	29	0	
Mercedes	500 Series		ME5 Z	38	5	43	4	1	5	0	
Mercedes	Others		ME99Z	1972	192	2164	317	97	414	0	
			MEE Z	1	0	1	0	0	0	0	
Holden / Nissan	Astra / Pulsar / Langley	84-86	N01 A	9552	2383	11935	2626	669	3295	1	Small
Nissan	Pulsar/Vector	87	N01 B	1504	325	1829	668	115	783	0	
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	N01 C	13296	2932	16228	2744	676	3420	1	Small
Nissan	Pulsar/Vector	91	N01 D	3419	709	4128	573	140	713	0	
Nissan	Pulsar / Vector / Sentra	92-95	N01 E	6731	1289	8020	1420	314	1734	1	Small

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Nissan	Pulsar / Vector / Sentra	96-99	N01 F	7252	1869	9121	1409	331	1740	1	Small
Nissan	Pulsar Others		N01 Z	421	202	623	143	51	194	0	
Nissan	Pintara	86-88	N02 A	5556	1025	6581	884	243	1127	1	Medium
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	N02 B	8959	1824	10783	1858	503	2361	1	Medium
Nissan	Pintara Others		N02 Z	1	0	1	96	24	120	0	
Nissan	Bluebird	82-86	N03 Z	12147	2502	14649	2501	757	3258	1	Medium
Nissan	Skyline	83-88	N04 Z	5114	909	6023	1163	336	1499	1	Large
Nissan	180B/200B		N05 Z	56	7	63	6	1	7	0	
Nissan	300ZX / Fairlady Z	90-95	N09 Z	556	92	648	111	29	140	1	Large
Nissan	Stanza	82-83	N10 Z	509	105	614	92	21	113	1	Small
Nissan	280C / Laurel	82-84	N11 Z	59	9	68	9	3	12	0	
Nissan	Gazelle / Silvia	84-86	N12 Z	413	76	489	380	130	510	1	Small
Nissan	280ZX	82-84	N13 Z	109	17	126	18	8	26	1	Medium
Nissan	Prairie	84-86	N14 Z	381	85	466	128	25	153	1	People Mover
Nissan	Maxima	90-94	N15 A	855	132	987	237	48	285	1	Large
Nissan	Maxima / Cefiro	95-99	N15 B	966	186	1152	227	47	274	1	Large
Nissan	Maxima	00-02	N15 C	300	57	357	63	15	78	1	Large
Nissan	Maxima Others		N15 Z	43	14	57	225	55	280	0	
Nissan	Exa	83-86	N16 A	470	125	595	121	34	155	1	Small
Nissan	Exa	87-91	N16 B	246	44	290	59	16	75	1	Small
Nissan	Exa Others		N16 Z	9	2	11	8	2	10	0	
Nissan	NX/NX-R	91-96	N17 Z	826	175	1001	142	46	188	1	Small
Nissan	300C / Laurel	85-87	N20 Z	93	18	111	12	5	17	0	
Nissan	720 Ute	82-85	N21 Z	1609	293	1902	228	74	302	1	Commercial - Ute
Nissan	B120		N22 Z	120	28	148	18	9	27	0	
Nissan	H40		N23 Z	16	3	19	2	1	3	0	
Nissan	Navara	86-91	N24 A	3790	587	4377	548	183	731	1	Commercial - Ute
Nissan	Navara	92-96	N24 B	1763	264	2027	245	73	318	1	Commercial - Ute
Nissan	Navara	97-05	N24 C	1416	180	1596	151	49	200	1	Commercial - Ute

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Nissan	Navara Others		N24 Z	300	77	377	101	23	124	0	
Nissan	Vans(Nomad/Urvan/C22/E24/Vanette)		N25 Z	3520	812	4332	640	200	840	0	
Nissan	Patrol / Safari	82-87	N26 A	1471	193	1664	181	56	237	1	4WD - Large
Nissan / Ford	Patrol / Maverick / Safari	88-97	N26 B	7411	892	8303	804	249	1053	1	4WD - Large
Nissan	Patrol / Safari	98-04	N26 C	2500	301	2801	285	83	368	1	4WD - Large
Nissan	Patrol		N26 Z	212	39	251	33	17	50	0	
Nissan	Pathfinder / Terrano	88-94	N27 Z	580	77	657	231	61	292	1	4WD - Medium
Nissan	Sunny /120Y		N28 Z	24	7	31	14	2	16	0	
Nissan	Serena	92-95	N30 Z	127	20	147	76	12	88	1	People Mover
Nissan	Infiniti	93-97	N31 Z	3	0	3	0	0	0	0	
Nissan	Bluebird	93-97	N32 Z	1549	240	1789	495	107	602	1	Medium
Nissan	200SX / Silvia	94-02	N33 Z	1181	172	1353	121	45	166	1	Medium
Nissan	Micra	95-97	N34 Z	782	226	1008	159	52	211	1	Light
Nissan	Pathfinder / Terrano / Regulus	95-05	N36 Z	745	97	842	120	22	142	1	4WD - Medium
Nissan	Terrano II	97-00	N38 Z	27	5	32	5	0	5	0	
Nissan	Pulsar	00-05	N39 Z	3844	1065	4909	691	193	884	1	Small
Nissan	X-Trail	01-05	N40 Z	769	177	946	136	34	170	1	4WD - Compact
Nissan	350Z	03-05	N41 Z	63	23	86	17	6	23	0	
Nissan	Maxima	03-05	N42 Z	111	21	132	19	4	23	1	Large
Nissan	Murano	05-05	N43 Z	16	2	18	1	0	1	0	
Nissan	Pathfinder	05-05	N44 Z	29	2	31	2	0	2	0	
Nissan	Navara	05-05	N45 Z	27	7	34	7	1	8	0	
Nissan	Tiida	06-06	N46 Z	23	7	30	3	3	6	0	
Nissan	Others		N99 Z	20579	3038	23617	5586	1712	7298	0	
Fsm			NIKIZ	15	12	27	12	6	18	0	
Lada	Niva	84-99	NIVAZ	334	71	405	75	20	95	1	4WD - Compact
Honda	Civic	82-83	O1 A	683	158	841	435	104	539	1	Small
Honda	Civic / Ballade / Shuttle	84-87	O1 B	2582	584	3166	1095	278	1373	1	Small
Honda	Civic / Shuttle	88-91	O1 C	4093	906	4999	1268	302	1570	1	Small

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Honda	Civic	92-95	O1 D	4642	934	5576	1057	217	1274	1	Small
Honda	Civic	96-00	O1 E	4272	904	5176	702	146	848	1	Small
Honda	Civic Others		O1 Z	222	84	306	532	116	648	0	
Honda	CRX	87-91	O10 A	371	79	450	252	79	331	1	Small
Honda	CRX	92-98	O10 B	215	35	250	51	18	69	1	Small
Honda	CRX Others		O10 Z	9	4	13	35	11	46	0	
Honda	Odyssey	95-00	O17 A	447	70	517	98	13	111	1	People Mover
Honda	Odyssey	00-02	O17 B	156	21	177	11	4	15	0	
			O17 Z	10	0	10	1	0	1	0	
Honda	CR-V	97-01	O18 A	1808	296	2104	290	42	332	1	4WD - Compact
Honda	CR-V	02-05	O18 B	897	157	1054	122	19	141	1	4WD - Compact
			O18 Z	13	5	18	43	10	53	0	
Honda	HR-V	99-02	O19 Z	353	66	419	50	14	64	1	4WD - Compact
Honda	Legend	86-95	O2 B	837	101	938	142	34	176	1	Large
Honda	Legend	96-98	O2 C	74	7	81	6	0	6	0	
Honda	Legend	99-04	O2 D	36	4	40	6	1	7	0	
Honda	Legend Others		O2 Z	12	8	20	50	12	62	0	
Honda	S2000	99-06	O20 Z	158	16	174	12	2	14	0	
Honda	Civic	01-05	O21 Z	835	161	996	143	37	180	1	Small
Honda	Jazz	02-05	O22 Z	418	120	538	113	28	141	1	Light
Honda	Insight	01-04	O23 Z	1	0	1	0	0	0	0	
Honda	MDX	03-05	O24 Z	39	1	40	2	1	3	0	
Honda	Accord Euro	03-05	O25 Z	390	77	467	60	9	69	1	Medium
Honda	Accord	03-05	O26 Z	180	33	213	29	8	37	1	Medium
Honda	Odyssey	04-05	O27 Z	72	9	81	7	0	7	0	
Honda	Civic	06-06	O28 Z	17	4	21	4	0	4	0	
Honda	Accord	82-85	O3 A	1975	433	2408	989	244	1233	1	Medium
Honda	Accord	86-90	O3 B	2163	351	2514	864	170	1034	1	Medium
Honda	Accord	91-93	O3 C	1464	193	1657	295	69	364	1	Medium

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Honda	Accord	94-98	O3 D	2844	443	3287	468	110	578	1	Medium
Honda	Accord	99-02	O3 E	479	89	568	87	15	102	1	Medium
Honda	Accord Others		O3 Z	127	47	174	321	73	394	0	
Honda	Prelude	82-82	O4 A	213	37	250	31	6	37	1	Medium
Honda	Prelude	83-91	O4 B	3392	550	3942	1203	297	1500	1	Medium
Honda	Prelude	92-96	O4 C	1493	227	1720	264	72	336	1	Medium
Honda	Prelude	97-02	O4 D	569	96	665	81	16	97	1	Medium
Honda	Prelude Others		O4 Z	58	25	83	158	32	190	0	
Honda	Integra	86-88	O5 A	633	117	750	340	80	420	1	Small
Honda	Integra	89	O5 B	410	83	493	279	68	347	0	
Honda	Integra	90-92	O5 C	683	121	804	211	46	257	1	Small
Honda	Integra	93	O5 D	203	33	236	28	6	34	0	
Honda	Integra	93-01	O5 E	922	159	1081	203	38	241	1	Small
Honda	Integra	02-05	O5 F	128	32	160	26	5	31	1	Small
Honda	Integra Others		O5 Z	39	19	58	40	10	50	0	
Honda	Concerto	89-93	O6 Z	512	104	616	180	48	228	1	Small
Honda	NSX	91-02	O7 Z	15	2	17	3	1	4	0	
Honda	Acty	83-86	O8 Z	275	60	335	44	16	60	1	Commercial - Van
Honda	City	83-86	O9 Z	339	129	468	595	125	720	1	Light
Honda	Others		O99 Z	3793	637	4430	1376	441	1817	0	
Peugeot	205	87-94	PE1 Z	283	43	326	53	16	69	1	Light
Peugeot	607	01-05	PE10Z	4	0	4	1	0	1	0	
Peugeot	407	04-05	PE11Z	11	2	13	5	2	7	0	
Peugeot	405	89-97	PE2 Z	572	89	661	130	35	165	1	Medium
Peugeot	505	82-93	PE3 Z	691	82	773	93	29	122	1	Medium
Peugeot	306	94-01	PE4 Z	1106	199	1305	220	33	253	1	Small
Peugeot	605	94-96	PE5 Z	35	4	39	7	2	9	0	
Peugeot	406	96-04	PE7 Z	222	16	238	30	6	36	1	Medium
Peugeot	206	99-06	PE8 Z	445	93	538	62	20	82	1	Light

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Peugeot	307	01-05	PE9 Z	257	41	298	43	7	50	1	Small
Peugeot	Others		PE99Z	378	44	422	123	32	155	0	
Porsche	944	82-91	PO1 Z	97	11	108	14	6	20	1	Medium
Porsche	911	82-06	PO2 Z	20	1	21	8	3	11	0	
Porsche	968	92-95	PO4 Z	1	0	1	0	0	0	0	
Porsche	Cayenne	03-05	PO6 Z	15	0	15	0	0	0	0	
Porsche	Others		PO99Z	709	71	780	70	35	105	0	
Proton	Wira	95-96	PRO1Z	975	303	1278	192	55	247	1	Small
Proton	Satria	97-06	PRO2Z	142	33	175	15	4	19	0	
Proton	Waja	01-05	PRO3Z	9	4	13	1	1	2	0	
Proton	Jumbuck	03-05	PRO4Z	41	5	46	4	2	6	0	
Proton	Gen 2	04-05	PRO5Z	10	5	15	4	0	4	0	
			PROTZ	41	11	52	9	4	13	0	
Renault	20	82-83	RE1 Z	17	4	21	7	4	11	0	
Renault	Megane Cabriolet	01-03	RE10Z	35	6	41	9	1	10	0	
Renault	Clio	02-05	RE11Z	118	31	149	25	4	29	1	Light
Renault	Megane II	03-05	RE12Z	22	8	30	8	1	9	0	
Renault	Trafic	04-05	RE13Z	4	0	4	0	0	0	0	
Renault	Master	04-05	RE14Z	4	0	4	0	0	0	0	
Renault	Kangoo	04-05	RE15Z	8	2	10	1	0	1	0	
Renault	Megane II Cabriolet	04-05	RE16Z	5	3	8	0	0	0	0	
Renault	Scenic II	05-05	RE17Z	4	0	4	0	0	0	0	
Renault	Feugo	82-87	RE2 Z	333	48	381	63	15	78	1	Medium
Renault	21	87-91	RE3 Z	23	4	27	6	2	8	0	
Renault	25	85-91	RE4 Z	47	9	56	17	4	21	0	
Renault	19	91-96	RE5 Z	275	55	330	51	7	58	1	Small
Renault	Laguna	95-96	RE7 Z	37	10	47	11	3	14	0	
Renault	Laguna	02-05	RE8 Z	17	4	21	6	0	6	0	
Renault	Scenic	01-05	RE9 Z	135	25	160	22	1	23	1	Small

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Renault	Others		RE99Z	344	47	391	64	11	75	0	
Rover	3500	82-87	RO Z	176	29	205	36	4	40	1	Large
Rover	416i/827		RO1 Z	354	65	419	47	11	58	0	
Rover	Quintet	82-86	RO2 Z	235	61	296	68	18	86	1	Small
Rover	825	87-88	RO3 Z	34	5	39	13	2	15	0	
Mg	MGF / MG TF	99-05	RO4 Z	201	28	229	26	6	32	1	Small
Landrover	Freelander	98-06	RO5 Z	155	26	181	25	9	34	1	4WD - Compact
Mg	ZT	02-05	RO6 Z	11	2	13	1	0	1	0	
Rover	75	01-05	RO7 Z	50	9	59	9	2	11	0	
Mg	ZR	05-05	RO9 Z	1	0	1	7	1	8	0	
Rover	Others		RO99Z	626	90	716	195	57	252	0	
Rolls	Royce		ROLLZ	29	6	35	4	2	6	0	
Land Rover	Range Rover	82-94	RROV1	904	113	1017	135	44	179	1	4WD - Large
Land Rover	Range Rover	95-02	RROV2	144	19	163	30	5	35	1	4WD - Large
Land Rover	Range Rover	02-05	RROV3	27	1	28	1	0	1	0	
Range	Rover Others		RROVZ	12	8	20	9	3	12	0	
Saab	Others		SA00Z	1003	134	1137	181	48	229	0	
Saab	900 Series	82-92	SA1 A	1005	168	1173	162	42	204	1	Medium
Saab	900/9-3	94-02	SA1 B	1147	164	1311	136	20	156	1	Medium
Saab	900 Others		SA1 Z	1	3	4	1	0	1	0	
Saab	9000	86-97	SA2 Z	948	139	1087	129	14	143	1	Medium
Saab	9-5	98-05	SA3 Z	176	38	214	32	3	35	1	Medium
Saab	9-3	03-05	SA4 Z	41	11	52	8	3	11	0	
Saab	9-5	06-06	SA5 Z	6	2	8	2	0	2	0	
Saab	900/9000		SA99Z	121	19	140	17	4	21	0	
Lada	Samara	88-90	SAMAZ	51	10	61	10	4	14	0	
Seat	Ibiza	95-99	SE01Z	5	2	7	4	1	5	0	
Seat	Cordoba	95-99	SE02Z	4	3	7	3	1	4	0	
Seat	Other		SEATZ	388	64	452	34	12	46	0	

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Smart	City-Coupe / ForTwo	03-05	SM01Z	7	1	8	4	0	4	0	
Smart	Roadster	03-05	SM02Z	5	0	5	0	0	0	0	
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	SU1 Z	6260	1487	7747	1280	413	1693	1	Medium
Subaru	Liberty / Legacy	89-93	SU2 A	4971	879	5850	1156	288	1444	1	Medium
Subaru	Liberty / Legacy / Outback	94-98	SU2 B	2233	404	2637	470	113	583	1	Medium
Subaru	Liberty / Legacy / Outback	99-03	SU2 C	2132	364	2496	253	57	310	1	Medium
Subaru	Liberty / Legacy / Outback	03-05	SU2 D	379	61	440	35	18	53	1	Medium
Subaru	Liberty Others		SU2 Z	102	36	138	358	95	453	0	
Subaru	Vortex	85-89	SU3 Z	66	16	82	37	7	44	0	
Subaru	Sherpa / Fiori / 700 / Rex	89-92	SU4 Z	647	314	961	294	74	368	1	Light
Subaru	SVX / Alcyone	92-95	SU5 Z	23	4	27	1	2	3	0	
Subaru	Brumby	82-92	SU6 Z	1546	450	1996	277	149	426	1	Commercial - Ute
Subaru	Impreza	93-00	SU7 A	3864	831	4695	717	195	912	1	Small
Subaru	Impreza	01-05	SU7 B	1185	200	1385	140	32	172	1	Small
			SU7 Z	22	8	30	31	6	37	0	
Subaru	Forester	97-02	SU8 Z	1299	240	1539	220	48	268	1	4WD - Compact
Subaru	Forester	02-05	SU9 Z	664	143	807	91	21	112	1	4WD - Compact
Subaru	Others		SU99Z	3423	712	4135	978	314	1292	0	
Suzuki	Swift	82-85	SZ01A	202	67	269	52	19	71	1	Light
Holden / Suzuki	Barina / Swift / Cultus	86-88	SZ01B	3617	1197	4814	1198	318	1516	1	Light
Holden / Suzuki	Barina / Swift / Cultus	89-99	SZ01C	16438	4494	20932	3406	801	4207	1	Light
Suzuki	Swift Others		SZ01Z	156	59	215	77	28	105	0	
Suzuki	Vitara / Escudo	88-98	SZ02A	3439	778	4217	690	159	849	1	4WD - Compact
Suzuki	Grand Vitara	99-05	SZ02B	471	103	574	93	23	116	1	4WD - Compact
Suzuki	Vitara Others		SZ02Z	58	25	83	59	20	79	0	
Suzuki	Hatch / Alto	82-84	SZ03Z	788	372	1160	268	85	353	1	Light
Holden / Suzuki	Scurry / Carry	82-00	SZ04Z	410	171	581	140	49	189	1	Commercial - Van
Suzuki	Alto	85-00	SZ05Z	199	92	291	177	50	227	1	Light
Suzuki	Mighty Boy	85-88	SZ06Z	426	190	616	136	40	176	1	Commercial - Ute

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Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	SZ07Z	3928	1163	5091	864	237	1101	1	4WD - Compact
Suzuki	Baleno / Cultus Crescent	95-02	SZ08Z	1517	367	1884	266	51	317	1	Small
Suzuki	Carry	99-05	SZ09Z	79	15	94	18	3	21	0	
Suzuki	Ignis	00-02	SZ10Z	264	93	357	91	24	115	1	Light
Suzuki	Jimny	98-06	SZ11Z	196	66	262	58	12	70	1	4WD - Compact
Suzuki	Liana	01-05	SZ12Z	167	42	209	32	10	42	1	Small
Suzuki	Grand Vitara	05-05	SZ13Z	15	2	17	3	1	4	0	
Suzuki	Swift	05-05	SZ14Z	136	47	183	32	7	39	1	Light
Suzuki	APV	05-05	SZ15Z	1	0	1	0	0	0	0	
Suzuki	Others		SZ99Z	2368	709	3077	826	296	1122	0	
Toyota	Corolla	82-84	T01 A	9516	2343	11859	2769	646	3415	1	Small
Toyota	Corolla	85	T01 B	2962	727	3689	1121	266	1387	0	
Toyota	Corolla	86-88	T01 C	16262	3981	20243	3550	888	4438	1	Small
Toyota	Corolla	89	T01 D	2085	436	2521	395	113	508	0	
Toyota / Holden	Corolla / Nova	89-93	T01 E	26142	5987	32129	5170	1287	6457	1	Small
Toyota / Holden	Corolla / Nova	94-97	T01 F	16460	3711	20171	2898	680	3578	1	Small
Toyota	Corolla	98-01	T01 G	4941	1222	6163	938	164	1102	1	Small
Toyota	Corolla	02-05	T01 H	4347	1063	5410	759	180	939	1	Small
Toyota	Corolla Others		T01 Z	2	0	2	6	1	7	0	
Toyota	Corona	82-88	T03 Z	17410	3646	21056	3169	837	4006	1	Medium
Toyota	Camry	83-86	T04 Z	3814	724	4538	605	160	765	1	Medium
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	T05 A	31247	5771	37018	4535	1192	5727	1	Medium
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	T05 B	25027	4835	29862	3441	906	4347	1	Medium
Toyota	Camry	98-02	T05 C	12786	2492	15278	1701	354	2055	1	Large
Toyota	Celica	81-85	T06 A	2490	467	2957	541	116	657	1	Medium
Toyota	Celica	86-89	T06 B	2344	393	2737	370	94	464	1	Medium
Toyota	Celica	90-93	T06 C	2378	404	2782	410	90	500	1	Medium
Toyota	Celica	94-99	T06 D	1364	273	1637	229	46	275	1	Medium

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Toyota	Celica	00-05	T06 E	358	78	436	45	12	57	1	Medium
Toyota	Celica Others		T06 Z	62	24	86	80	23	103	0	
Toyota	Crown / Cressida / Mark II	82-85	T07 A	2044	377	2421	400	120	520	1	Large
Toyota	Crown / Cressida / Mark II	86-88	T07 B	976	139	1115	98	39	137	1	Large
Toyota	Cressida / Mark II	89-93	T07 C	2261	329	2590	250	73	323	1	Large
Toyota	Crown/Cres Others		T07 Z	42	7	49	31	6	37	0	
Toyota	Tercel	83-88	T09 Z	489	113	602	118	32	150	1	Small
Toyota	Lexcen Others		T10 Z	1	0	1	2	0	2	0	
Toyota	Supra	82-90	T11 Z	511	95	606	84	32	116	1	Large
Toyota	MR2	87-90	T12 A	230	54	284	102	36	138	1	Small
Toyota	MR2	91-00	T12 B	187	30	217	71	14	85	1	Small
Toyota	MR2 Others		T12 Z	26	7	33	36	5	41	0	
Toyota	Paseo / Cynos	91-99	T13 Z	1448	317	1765	287	62	349	1	Small
Toyota	Bundera		T14 Z	10	4	14	4	1	5	0	
Toyota	Hiace/Liteace	82-86	T15 A	4456	816	5272	882	260	1142	1	Commercial - Van
Toyota	Hiace/Liteace	87-89	T15 B	2319	395	2714	529	141	670	1	Commercial - Van
Toyota	Hiace/Liteace	90-95	T15 C	5349	761	6110	744	222	966	1	Commercial - Van
Toyota	Hiace/Liteace	96-04	T15 D	4478	622	5100	478	123	601	1	Commercial - Van
Toyota	Hiace	05-05	T15 E	101	8	109	14	3	17	0	
Toyota	Hiace/Liteace Others		T15 Z	211	55	266	214	44	258	0	
Toyota	4Runner/Hilux	82-85	T16 A	5268	1043	6311	748	288	1036	1	Commercial - Ute
Toyota	4Runner/Hilux	86-88	T16 B	4054	752	4806	759	279	1038	1	Commercial - Ute
Toyota	4Runner/Hilux	89-97	T16 C	16948	3044	19992	2577	1005	3582	1	Commercial - Ute
Toyota	Hilux	98-02	T16 D	4656	818	5474	596	183	779	1	Commercial - Ute
Toyota	Hilux	3-Apr	T16 E	880	151	1031	118	42	160	1	Commercial - Ute
Toyota	Hilux	05-05	T16 F	356	59	415	27	22	49	1	Commercial - Ute
Toyota	4Runner/Hilux Others		T16 Z	866	297	1163	410	147	557	0	
Lexus	ES300 / Windom	92-01	T17 Z	524	84	608	97	24	121	1	Large
Toyota	Tarago	83-89	T18 A	4706	1182	5888	782	236	1018	1	People Mover

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Toyota	Tarago	90	T18 B	188	29	217	101	11	112	0	
Toyota	Tarago / Previa / Estima	91-99	T18 C	3027	452	3479	335	81	416	1	People Mover
Toyota	Tarago / Previa / Estima	00-06	T18 D	535	89	624	54	17	71	1	People Mover
Toyota	Tarago Others		T18 Z	117	32	149	23	9	32	0	
Toyota	Commercials		T19 Z	5036	798	5834	522	132	654	0	
Toyota	Landcruiser	82-89	T20 A	7474	1212	8686	891	387	1278	1	4WD - Large
Toyota	Landcruiser	90-97	T20 B	10709	1414	12123	1140	447	1587	1	4WD - Large
Toyota	Landcruiser	98-06	T20 C	3930	628	4558	518	183	701	1	4WD - Large
Toyota	Landcruiser Others		T20 Z	615	194	809	170	83	253	0	
Toyota	RAV4	94-00	T21 A	2318	444	2762	454	87	541	1	4WD - Compact
Toyota	RAV4	01-05	T21 B	1459	306	1765	217	57	274	1	4WD - Compact
			T21 Z	55	14	69	17	6	23	0	
Toyota	Starlet	96-99	T22 Z	3724	1017	4741	774	194	968	1	Light
Lexus	LS400 / Celsior	90-00	T25 Z	179	26	205	22	3	25	1	Large
Lexus	IS200 / IS300	99-04	T26 Z	427	71	498	29	3	32	1	Medium
Toyota	Echo	99-05	T27 Z	3362	952	4314	686	187	873	1	Light
Lexus	GS300	97-04	T28 Z	116	12	128	8	1	9	0	
Toyota	Avalon	00-05	T29 Z	1679	306	1985	229	51	280	1	Large
Toyota	MR2	00-05	T30 Z	65	20	85	6	1	7	0	
Lexus	LS430	00-04	T31 Z	30	1	31	0	0	0	0	
Toyota	Corolla 4WD Wagon	92-96	T32 Z	454	75	529	49	14	63	1	Small
Toyota	Spacia	93-00	T33 A	139	34	173	22	3	25	1	People Mover
Toyota	Spacia	01-02	T33 B	11	3	14	3	0	3	0	
			T33 Z	2	0	2	0	0	0	0	
Lexus	ES300	01-05	T34 Z	46	4	50	0	0	0	0	
Lexus	SC430	01-05	T35 Z	12	0	12	1	0	1	0	
Toyota	Camry	02-05	T36 Z	2653	550	3203	422	75	497	1	Large
Toyota	Prius	01-02	T37 Z	18	1	19	1	0	1	0	
Toyota	Avensis	01-05	T38 Z	92	16	108	7	5	12	0	

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Toyota	Prius	03-05	T39 Z	34	4	38	4	2	6	0	
Toyota	Kluger	03-05	T40 Z	272	37	309	27	5	32	1	4WD - Medium
Toyota	Landcruiser Prado	96-03	T41 Z	727	92	819	62	15	77	1	4WD - Medium
Toyota	Landcruiser Prado	03-05	T42 Z	631	73	704	59	15	74	1	4WD - Medium
Lexus	RX330	03-05	T43 Z	102	12	114	8	2	10	0	
Lexus	GS300/430/450h	05-05	T44 Z	8	1	9	2	0	2	0	
Toyota	Yaris	05-05	T45 Z	146	38	184	37	6	43	1	Light
			T46 Z	5	3	8	0	0	0	0	
Lexus	IS250	05-05	T48 Z	13	3	16	0	0	0	0	
Lexus	RX350	06-06	T49 Z	8	0	8	0	0	0	0	
Toyota	Aurion	06-06	T50 Z	5	1	6	1	0	1	0	
Toyota	Camry	06-06	T51 Z	25	1	26	0	0	0	0	
Toyota	RAV4	06-06	T52 Z	43	3	46	1	2	3	0	
Toyota	Tarago	06-06	T54 Z	14	1	15	0	0	0	0	
Toyota	Others		T99 Z	26978	4214	31192	8557	2836	11393	0	
Volvo	850/S70/V70/C70	92-04	V877Z	1621	251	1872	202	41	243	1	Large
Volvo	200 Series	82-93	VO02Z	3172	442	3614	328	91	419	1	Medium
Volvo	300 Series	84-88	VO03Z	188	26	214	33	10	43	1	Small
Volvo	700/900 Series	84-92	VO07Z	2082	314	2396	264	46	310	1	Large
Volvo	960/S90/V90	90-98	VO10Z	109	21	130	17	5	22	1	Large
Volvo	S80	98-06	VO11Z	64	8	72	6	0	6	0	
Volvo	S60	01-05	VO12Z	90	14	104	11	3	14	0	
Volvo	XC 90	03-05	VO13Z	48	9	57	4	1	5	0	
Volvo	S40/V50	04-05	VO14Z	21	4	25	1	0	1	0	
Volvo	S40/V40	97-04	VO40Z	580	102	682	77	16	93	1	Small
Volvo	Others		VO99Z	3126	409	3535	503	135	638	0	
Volkswagon			VOLKZ	9	2	11	19	5	24	0	
Volkswagen	Caravelle / Transporter	88-94	VS01A	331	43	374	26	6	32	1	Commercial - Van

	MAKE/MODEL		MODEL CODE	No. of uninjured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of involved drivers in NSW (87-2006) and QLD, WA (91-2006) and SA (95-2006)	No. of injured (but not severely) drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	No. of severely injured drivers in NSW and Victoria (87-2006) and QLD, WA, NZ (91-2005) and SA (95-2005)	No. of injured drivers in NSW, Victoria (87-2006) and QLD, WA, NZ (91-2006) and SA (95-2006)	ANALYSIS INCLUSION CRITERIA INV=100 INJ=20	MARKET GROUP
Volkswagen	Caravelle / Transporter	95-04	VS01B	851	127	978	80	9	89	1	Commercial - Van
			VS01Z	120	18	138	10	3	13	0	
Volkswagen	Golf	82-94	VS02A	214	40	254	59	15	74	1	Small
Volkswagen	Golf	95-98	VS02B	1010	171	1181	108	21	129	1	Small
Volkswagen	Golf / Bora	99-04	VS02C	1233	236	1469	197	26	223	1	Small
Volkswagen	Golf Others		VS02Z	6	2	8	6	0	6	0	
Volkswagen	Kombi		VS03Z	6	4	10	3	1	4	0	
Volkswagen	Passat	95-97	VS04A	44	6	50	7	1	8	0	
Volkswagen	Passat	98-06	VS04B	267	36	303	43	5	48	1	Medium
Volkswagen	Passat Others		VS04Z	4	1	5	2	0	2	0	
Volkswagen	70E Pick Up		VS07Z	24	1	25	5	1	6	0	
Volkswagen	Polo	96-00	VS08A	424	114	538	79	9	88	1	Light
Volkswagen	Polo	01-02	VS08B	45	13	58	11	5	16	0	
Volkswagen	Polo Others		VS08Z	6	1	7	2	0	2	0	
Volkswagen	New Beetle	00-06	VS10Z	144	27	171	29	2	31	1	Small
Volkswagen	Polo	02-05	VS11Z	86	25	111	19	2	21	1	Light
Volkswagen	LT	03-05	VS12Z	9	0	9	3	1	4	0	
Volkswagen	Touareg	03-05	VS13Z	24	0	24	1	1	2	0	
Volkswagen	Golf / Jetta	04-05	VS15Z	175	27	202	26	2	28	1	Small
Volkswagen	Caddy	05-05	VS16Z	13	3	16	0	0	0	0	
Volkswagen	Multivan	04-05	VS17Z	1	0	1	0	0	0	0	
Volkswagen	Passat	06-06	VS18Z	4	0	4	0	0	0	0	
Volkswagen	Others		VS99Z	344	51	395	77	28	105	0	
Unknown				216,623	70,204	286,827	55,158	19,134	74,292	0	
			Total	1,941,505	405,108	2,346,613	386,260	108,551	494,811	406	

APPENDIX 2

LOGISTIC REGRESSION ESTIMATES OF CRASHWORTHINESS INJURY RISK BY MODEL AND MARKET GROUP

CRASHWORTHINESS INJURY RISK RATINGS

New South Wales Data (1987-2006), South Australia (1995-2006),
Queensland and Western Australia Data (1991-2006)

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE			16.58			
Compact Four Wheel Drive Vehicles			17.76	17.33	18.20	0.87
Daihatsu	Feroza / Rocky	89-97	19.04	16.79	21.51	4.72
Daihatsu	Rocky / Rugger	85-98	21.82	18.68	25.32	6.65
Daihatsu	Terios	97-05	24.00	21.12	27.15	6.03
Holden	Cruze	02-06	20.78	17.24	24.82	7.58
Mitsubishi	Outlander	03-06	14.87	10.61	20.46	9.85
Kia	Sportage	98-03	16.20	13.46	19.39	5.93
Ford / Mazda	Escape / Tribute	01-06	13.31	11.26	15.66	4.39
Nissan	X-Trail	01-06	15.41	13.35	17.73	4.38
Lada	Niva	84-99	18.47	14.80	22.82	8.02
Honda	CR-V	97-01	13.09	11.72	14.59	2.86
Honda	CR-V	02-06	12.59	10.81	14.62	3.80
Honda	HR-V	99-02	14.19	11.22	17.78	6.56
Landrover	Freelander	98-06	13.24	9.10	18.88	9.78
Subaru	Forester	97-02	13.17	11.63	14.89	3.26
Subaru	Forester	02-06	14.06	11.96	16.45	4.49
Suzuki	Vitara / Escudo	88-98	20.30	19.02	21.65	2.63
Suzuki	Grand Vitara	99-05	14.68	12.14	17.64	5.50
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	25.52	24.22	26.86	2.64
Suzuki	Jimny	98-06	21.30	16.81	26.61	9.80
Toyota	RAV4	94-00	15.40	14.08	16.81	2.73
Toyota	RAV4	01-06	14.38	12.90	16.01	3.12
Medium Four Wheel Drive Vehicles			12.87	12.41	13.34	0.93
Daewoo / Ssangong	Musso	98-02	10.88	7.40	15.71	8.31
Ford	Territory SX/SY	04-06	10.28	7.54	13.87	6.32
Holden / Isuzu	Jackaroo / Bighorn	82-91	19.94	17.43	22.72	5.29
Holden / Isuzu	Jackaroo / Bighorn	92-97	14.11	11.74	16.86	5.13
Holden / Isuzu	Jackaroo / Bighorn	98-02	13.54	11.22	16.26	5.03
Holden	Frontera / Mu	95-03	15.32	11.83	19.59	7.76
Hyundai	Santa Fe	00-06	15.67	12.03	20.15	8.12
Mitsubishi	Pajero	82-90	17.23	15.64	18.95	3.31
Mitsubishi	Pajero	92-99	12.03	11.01	13.13	2.12
Mitsubishi	Pajero NM / NP / NS	00-06	8.35	6.77	10.27	3.50
Mitsubishi	Challenger	98-06	12.94	10.16	16.34	6.18
Jeep	Cherokee XJ	96-00	12.73	10.91	14.80	3.89
Jeep	Wrangler	96-04	13.44	9.67	18.37	8.70
Land Rover	Defender	92-06	12.83	9.75	16.68	6.93
Land Rover	Discovery	91-02	11.89	10.08	13.97	3.89

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Nissan	Pathfinder / Terrano	88-94	14.04	11.33	17.26	5.93
Nissan	Pathfinder / Terrano / Regulus	95-05	11.35	9.35	13.71	4.36
Toyota	Kluger	03-06	10.39	7.57	14.09	6.52
Toyota	Landcruiser Prado	96-03	9.83	8.03	11.98	3.95
Toyota	Landcruiser Prado	03-06	8.59	6.85	10.73	3.88
Large Four Wheel Drive Vehicles			12.38	12.08	12.70	0.63
Ford	Bronco	82-87	14.89	10.09	21.43	11.33
Ford	Explorer	00-01	17.19	13.75	21.28	7.52
Ford	Explorer	01-05	9.95	6.43	15.07	8.64
Jeep	Grand Cherokee ZG	96-99	10.98	7.54	15.74	8.20
Jeep	Grand Cherokee WJ/WG	99-05	9.91	6.21	15.45	9.24
Mercedes Benz	M-Class W163	98-05	9.66	7.01	13.16	6.15
Nissan	Patrol / Safari	82-87	13.96	12.21	15.92	3.71
Nissan / Ford	Patrol / Maverick / Safari	88-97	11.78	11.04	12.55	1.51
Nissan	Patrol / Safari	98-04	10.03	8.97	11.19	2.22
Land Rover	Range Rover	82-94	13.29	11.15	15.78	4.64
Land Rover	Range Rover	95-02	12.67	8.16	19.14	10.97
Toyota	Landcruiser	82-89	15.60	14.78	16.46	1.68
Toyota	Landcruiser	90-97	12.29	11.67	12.93	1.26
Toyota	Landcruiser	98-06	12.15	11.25	13.12	1.87
Commercial Vehicles- Vans			17.57	17.14	18.02	0.88
Daihatsu	Handivan	82-90	33.76	30.59	37.09	6.51
Daihatsu	Hi-Jet	82-90	42.10	35.01	49.54	14.53
Daihatsu	Handivan / Cuore	99-03	27.57	22.03	33.89	11.85
Ford	Falcon Panel Van	82-95	16.59	15.35	17.91	2.56
Ford	Falcon Panel Van	96-99	13.42	10.57	16.90	6.33
Ford	Transit	95-00	13.24	11.20	15.58	4.38
Ford	Transit	01-06	10.35	7.60	13.95	6.35
Holden	Shuttle / WFR Van	82-87	22.57	18.99	26.60	7.61
Kia	Pregio	02-06	18.62	14.68	23.33	8.65
Mercedes Benz	MB100 / MB140	99-04	10.30	7.15	14.62	7.47
Mercedes Benz	Vito / Viano	99-06	8.71	6.29	11.96	5.67
Mercedes Benz	Sprinter	98-04	13.83	10.61	17.85	7.24
Honda	Acty	83-86	16.02	12.51	20.27	7.76
Holden / Suzuki	Scurry / Carry	82-00	33.60	29.53	37.93	8.41
Toyota	Hiace/Liteace	82-86	21.82	20.52	23.19	2.67
Toyota	Hiace/Liteace	87-89	20.58	18.83	22.44	3.61
Toyota	Hiace/Liteace	90-95	17.53	16.42	18.70	2.28
Toyota	Hiace/Liteace	96-04	14.76	13.70	15.88	2.18
Volkswagen	Caravelle / Transporter	88-94	13.51	10.15	17.78	7.63
Volkswagen	Caravelle / Transporter	95-04	14.81	12.56	17.38	4.82
Commercial Vehicles- Utes			15.28	15.05	15.51	0.46
Ford / Nissan	Falcon Ute / XFN Ute	82-95	15.70	14.98	16.44	1.46
Ford	Falcon Ute	96-99	14.68	13.29	16.18	2.90
Ford	Falcon Ute AU	00-02	12.18	10.87	13.62	2.75
Ford	Falcon Ute BA/BF	03-06	10.82	9.15	12.75	3.60
Ford	Ford F-Series	82-92	14.64	12.43	17.17	4.74

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden	Commodore Ute VG/VP	90-93	16.37	14.75	18.14	3.38
Holden / Isuzu	Rodeo / Pickup	82-85	19.12	16.36	22.22	5.86
Holden / Isuzu	Rodeo / Pickup	86-88	18.96	15.32	23.22	7.90
Holden / Isuzu	Rodeo / Pickup	89-95	16.62	15.72	17.57	1.85
Holden	Rodeo	96-98	15.58	14.30	16.95	2.65
Holden	Rodeo	99-02	14.98	13.72	16.34	2.62
Holden	WB Series	82-85	15.93	14.25	17.76	3.51
Holden	Commodore Ute VR/VS	94-00	15.03	14.24	15.85	1.61
Holden	Commodore VU Ute	00-02	12.67	11.21	14.30	3.08
Holden	Commodore VY/VZ Ute	02-06	13.04	11.70	14.51	2.81
Holden	Rodeo	03-06	12.49	10.98	14.17	3.19
Mitsubishi	Triton MK	96-06	12.32	10.38	14.57	4.20
Kia	Ceres	92-00	19.82	17.43	22.43	5.00
Ford / Mazda	Courier / B-Series / Bounty	98-02	13.20	11.64	14.94	3.30
Ford / Mazda	Courier / Bravo / Bounty	03-06	17.97	14.93	21.48	6.55
Nissan	720 Ute	82-85	18.72	16.83	20.78	3.94
Nissan	Navara	86-91	16.34	15.14	17.61	2.47
Nissan	Navara	92-96	14.67	13.07	16.43	3.36
Nissan	Navara	97-05	11.06	9.58	12.72	3.14
Subaru	Brumby	82-92	20.72	18.96	22.60	3.65
Suzuki	Mighty Boy	85-88	36.13	32.09	40.38	8.30
Toyota	4Runner/Hilux	82-85	18.68	17.63	19.77	2.14
Toyota	4Runner/Hilux	86-88	17.58	16.43	18.80	2.37
Toyota	4Runner/Hilux	89-97	16.11	15.55	16.69	1.13
Toyota	Hilux	98-02	14.13	13.22	15.10	1.88
Toyota	Hilux	03-04	13.09	11.19	15.24	4.05
Toyota	Hilux	05-06	13.51	10.54	17.16	6.63
Large Cars			15.56	15.42	15.70	0.28
BMW	7 Series E23	82-88	12.20	8.64	16.94	8.30
BMW	7 Series E32	89-94	13.88	9.66	19.55	9.89
BMW	7 Series E38	95-01	9.73	6.01	15.39	9.38
Ford	Falcon XE/XF	82-88	17.12	16.76	17.48	0.73
Ford	Fairlane Z & LTD F	82-87	16.71	15.76	17.70	1.94
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	16.33	15.95	16.72	0.77
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	15.00	14.48	15.53	1.04
Ford	Fairlane N & LTD D	88-94	13.62	12.66	14.64	1.97
Ford	Fairlane N & LTD D	95-98	13.38	11.87	15.04	3.17
Ford	Fairlane & LTD AU	99-02	13.73	11.67	16.09	4.41
Ford	Falcon EF/EL	94-98	14.92	14.56	15.29	0.73
Ford	Falcon AU	98-02	14.51	14.02	15.01	0.99
Ford	Taurus	96-98	16.01	12.98	19.59	6.61
Ford	Falcon BA/BF	02-06	13.49	12.68	14.34	1.66
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	16.88	16.53	17.23	0.69
Holden	Statesman/Caprice WB	82-85	16.11	10.94	23.09	12.15
Holden	Stateman/Caprice VQ	90-93	14.86	12.40	17.72	5.32
Holden	Stateman/Caprice VR/VS	94-98	14.84	13.73	16.01	2.28
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	15.48	15.14	15.83	0.69
Holden	Commodore VT/VX	97-02	15.14	14.76	15.53	0.78
Holden	Statesman/Caprice WH	99-03	11.91	10.12	13.96	3.83
Holden	Commodore VY/VZ	02-06	14.49	13.75	15.27	1.52
Holden	Monaro	01-06	15.68	12.66	19.26	6.60

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden	Statesman/Caprice WK/WL	03-06	17.03	13.16	21.75	8.59
Holden	Commodore VB-VL	82-88	18.34	17.95	18.73	0.78
Hyundai	Sonata	98-01	15.82	13.61	18.30	4.69
Hyundai	Sonata EF	02-05	17.88	12.82	24.39	11.57
Hyundai	Sonata	89-97	17.14	15.97	18.39	2.42
Hyundai	Grandeaur / XG	99-00	12.27	9.05	16.42	7.38
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	18.12	17.64	18.62	0.98
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	15.02	14.47	15.57	1.10
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	16.03	15.56	16.52	0.96
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	13.97	11.73	16.56	4.83
Jaguar	XJ6	82-86	16.95	13.08	21.66	8.58
Jaguar	XJ6	87-94	12.46	9.68	15.91	6.23
Mazda	929 / Luce	82-90	18.61	17.27	20.03	2.77
Mazda	929 / Sentia / Efini MS-9	92-96	17.06	12.72	22.50	9.78
Mercedes Benz	S-Class W126	82-92	13.29	11.19	15.72	4.53
Nissan	Skyline	83-88	17.70	16.65	18.79	2.15
Nissan	300ZX / Fairlady Z	90-95	18.02	14.91	21.62	6.72
Nissan	Maxima	90-94	15.49	13.18	18.13	4.95
Nissan	Maxima / Cefiro	95-99	16.24	14.15	18.57	4.42
Nissan	Maxima	00-02	14.82	11.52	18.87	7.35
Nissan	Maxima	03-06	14.93	9.84	22.00	12.16
Honda	Legend	86-95	12.56	10.42	15.08	4.66
Rover	3500	82-87	19.05	13.53	26.14	12.61
Toyota	Camry	98-02	15.20	14.62	15.80	1.18
Toyota	Crown / Cressida / Mark II	82-85	18.15	16.52	19.90	3.38
Toyota	Crown / Cressida / Mark II	86-88	14.65	12.51	17.08	4.57
Toyota	Cressida / Mark II	89-93	13.82	12.46	15.31	2.85
Toyota	Supra	82-90	19.61	16.30	23.41	7.11
Lexus	ES300 / Windom	92-01	14.93	12.19	18.17	5.99
Lexus	LS400 / Celsior	90-00	12.83	8.83	18.28	9.44
Toyota	Avalon	00-05	13.53	12.14	15.07	2.93
Toyota	Camry	02-06	14.87	13.71	16.11	2.40
Volvo	850/S70/V70/C70	92-04	13.58	12.06	15.27	3.21
Volvo	700/900 Series	84-92	14.81	13.34	16.42	3.08
Volvo	960/S90/V90	90-98	15.63	10.26	23.07	12.81
Medium Cars			16.88	16.71	17.06	0.35
Alfa Romeo	156	99-06	14.55	11.18	18.71	7.54
Audi	A4	95-01	12.42	10.16	15.09	4.93
BMW	Z3 E36	97-03	10.90	7.32	15.93	8.61
BMW	3 Series E30	82-91	16.42	15.20	17.73	2.54
BMW	3 Series E36	92-98	15.80	14.78	16.88	2.11
BMW	3 Series E46	99-04	14.47	13.05	16.02	2.97
BMW	5 Series E28	82-88	13.67	11.52	16.14	4.62
BMW	5 Series E34	89-95	15.18	12.79	17.91	5.12
BMW	5 Series E39	96-03	9.75	7.78	12.17	4.39
Chrysler	PT Cruiser	00-06	19.18	12.80	27.72	14.92
Daewoo	Espero	95-97	21.30	18.71	24.14	5.43
Daewoo	Leganza	97-02	14.63	12.18	17.47	5.29
Ford	Mondeo	95-01	14.60	13.18	16.14	2.96

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Ford	Probe	94-98	20.43	15.62	26.26	10.65
Ford	Cougar	99-03	15.02	11.08	20.05	8.97
Holden	Calibra	94-97	15.04	11.72	19.10	7.38
Holden	Camira	82-89	22.60	21.91	23.30	1.39
Holden	Vectra	97-03	15.99	14.76	17.29	2.53
Holden	Vectra ZC	03-05	12.56	8.67	17.85	9.17
Hyundai	Elantra	00-06	17.06	15.38	18.89	3.51
Hyundai	Lantra	91-95	19.87	18.35	21.49	3.14
Hyundai	Lantra	96-00	17.31	16.24	18.43	2.18
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	19.93	19.17	20.71	1.54
Mitsubishi	Starion	82-87	20.96	15.30	28.02	12.72
Mitsubishi	Galant	95-96	18.18	16.32	20.19	3.87
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	19.25	18.44	20.09	1.65
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	17.30	16.33	18.31	1.98
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	14.78	13.87	15.73	1.85
Mazda	626	98-02	15.12	13.59	16.79	3.20
Mazda	RX7	82-85	20.95	17.79	24.50	6.71
Mazda	RX7	86-91	15.18	11.62	19.59	7.97
Mazda	Eunos 500	93-99	21.11	16.78	26.21	9.43
Mazda	Eunos 800	94-00	14.08	8.47	22.50	14.03
Mazda	6	02-06	16.14	12.90	20.01	7.11
Mercedes Benz	C-Class W201	87-93	15.62	13.24	18.33	5.09
Mercedes Benz	C-Class W202	95-00	12.84	11.15	14.74	3.60
Mercedes Benz	CLK C208	97-03	14.40	10.08	20.16	10.08
Mercedes Benz	E-Class W123	82-85	13.15	10.31	16.63	6.32
Mercedes Benz	E-Class W124	86-94	14.69	12.78	16.82	4.04
Mercedes Benz	E-Class W210	96-02	11.25	9.12	13.81	4.70
Mercedes Benz	SLK R170	97-04	16.27	11.45	22.60	11.14
Mercedes Benz	C-Class W203	00-06	13.20	10.55	16.38	5.83
Nissan	Pintara	86-88	17.88	16.88	18.93	2.05
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	19.10	18.29	19.94	1.65
Nissan	Bluebird	82-86	20.33	19.59	21.09	1.50
Nissan	280ZX	82-84	16.28	10.32	24.75	14.43
Nissan	Bluebird	93-97	14.32	12.69	16.13	3.44
Nissan	200SX / Silvia	94-02	13.22	11.44	15.24	3.80
Honda	Accord Euro	03-06	14.99	12.08	18.44	6.36
Honda	Accord	03-06	13.84	9.92	18.98	9.06
Honda	Accord	82-85	20.94	19.20	22.78	3.58
Honda	Accord	86-90	16.20	14.68	17.84	3.15
Honda	Accord	91-93	13.13	11.47	14.99	3.51
Honda	Accord	94-98	14.70	13.46	16.04	2.58
Honda	Accord	99-02	14.42	11.79	17.52	5.73
Honda	Prelude	82-82	18.00	13.30	23.91	10.61
Honda	Prelude	83-91	17.57	16.26	18.96	2.70
Honda	Prelude	92-96	16.33	14.46	18.39	3.93
Honda	Prelude	97-02	14.98	12.37	18.03	5.66
Peugeot	405	89-97	14.12	11.55	17.16	5.61
Peugeot	505	82-93	11.81	9.58	14.48	4.90
Peugeot	406	96-04	6.99	4.30	11.15	6.85
Porsche	944	82-91	15.20	8.65	25.33	16.68
Renault	Feugo	82-87	17.23	13.24	22.12	8.88

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Saab	900 Series	82-92	16.68	14.48	19.15	4.67
Saab	900/9-3	94-02	12.62	10.89	14.58	3.70
Saab	9000	86-97	14.34	12.25	16.73	4.48
Saab	9-5	98-05	17.08	12.60	22.73	10.13
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	19.59	18.66	20.56	1.90
Subaru	Liberty / Legacy	89-93	16.30	15.30	17.35	2.04
Subaru	Liberty / Legacy / Outback	94-98	14.46	13.15	15.87	2.72
Subaru	Liberty / Legacy / Outback	99-03	12.80	11.58	14.13	2.55
Subaru	Liberty / Legacy / Outback	03-06	12.54	9.81	15.88	6.07
Toyota	Corona	82-88	20.02	19.41	20.66	1.25
Toyota	Camry	83-86	18.97	17.73	20.27	2.54
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	16.81	16.37	17.25	0.88
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	17.04	16.57	17.53	0.96
Toyota	Celica	81-85	19.93	18.34	21.61	3.27
Toyota	Celica	86-89	17.61	16.07	19.27	3.20
Toyota	Celica	90-93	17.08	15.59	18.68	3.09
Toyota	Celica	94-99	17.99	16.09	20.05	3.96
Toyota	Celica	00-05	16.16	13.04	19.86	6.82
Lexus	IS200 / IS300	99-04	13.63	10.89	16.93	6.04
Volvo	200 Series	82-93	13.55	12.39	14.79	2.40
Volkswagen	Passat	98-06	11.53	8.39	15.64	7.26
People Movers			17.96	17.52	18.41	0.89
Chrysler	Voyager	97-06	11.80	9.28	14.89	5.61
Holden	Zafira TT	01-05	13.74	9.91	18.75	8.84
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	20.84	17.46	24.68	7.22
Mitsubishi	Nimbus / Chariot	92-98	18.78	16.30	21.54	5.25
Mitsubishi	Nimbus	99-03	11.53	8.35	15.71	7.37
Mitsubishi	Starwagon / L300	83-86	25.01	23.44	26.64	3.20
Mitsubishi	Starwagon / Delica Starwagon	87-93	20.74	19.64	21.88	2.24
Mitsubishi	Starwagon / Delica Spacegear	95-98	17.30	15.48	19.29	3.80
Mitsubishi	Starwagon / Delica Spacegear	98-03	15.26	13.13	17.67	4.54
Kia	Carnival	99-06	9.76	7.88	12.03	4.15
Mazda	MPV	94-99	10.94	8.01	14.77	6.76
Nissan	Prairie	84-86	21.87	18.00	26.30	8.30
Nissan	Serena	92-95	13.84	8.98	20.73	11.75
Honda	Odyssey	95-00	12.27	9.77	15.31	5.54
Toyota	Tarago	83-89	22.19	21.05	23.37	2.32
Toyota	Tarago / Previa / Estima	91-99	12.89	11.79	14.08	2.29
Toyota	Tarago / Previa / Estima	00-06	11.83	9.65	14.43	4.78
Toyota	Spacia	93-00	17.01	12.23	23.17	10.95
Light Cars			22.13	21.87	22.39	0.52
Daihatsu	Charade	82-86	26.97	25.10	28.93	3.83
Daihatsu	Charade	88-92	23.74	22.78	24.73	1.94
Daihatsu	Charade	93-00	22.19	21.21	23.20	1.98
Daihatsu	Pyzar	97-01	19.20	15.49	23.54	8.04
Daihatsu	Sirion / Storia	98-04	21.21	19.21	23.37	4.16
Daihatsu	Mira	90-96	33.34	30.24	36.59	6.34
Daewoo	Matiz	99-04	27.14	24.12	30.39	6.27

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Daewoo	Kalos	03-04	19.57	15.25	24.77	9.52
Ford	Festiva WD/WH/WF	94-01	23.05	22.35	23.76	1.41
Ford	Ka	99-02	19.84	16.42	23.76	7.34
Holden	Barina XC	01-06	18.40	16.72	20.21	3.49
Holden	Barina SB	95-00	21.62	20.68	22.59	1.91
Hyundai	Getz	02-06	19.01	17.08	21.11	4.03
Mitsubishi	Mirage / Colt	82-88	23.63	22.88	24.41	1.53
Ford / Mazda	Festiva WA / 121	87-90	23.41	22.45	24.41	1.96
Mazda	121 / Autozam Review	94-96	21.85	20.56	23.19	2.63
Mazda	121 Metro / Demio	97-02	19.83	18.36	21.39	3.03
Mazda	2	02-06	17.40	14.01	21.40	7.39
Nissan	Micra	95-97	22.07	19.51	24.85	5.34
Honda	Jazz	02-06	18.52	15.59	21.87	6.28
Honda	City	83-86	30.57	26.25	35.26	9.01
Peugoet	205	87-94	17.15	12.96	22.36	9.41
Peugeot	206	99-06	15.71	12.92	18.96	6.04
Renault	Clio	02-06	19.72	14.14	26.82	12.68
Subaru	Sherpa / Fiori / 700 / Rex	89-92	35.77	32.58	39.08	6.50
Suzuki	Swift	82-85	26.78	21.51	32.81	11.29
Holden / Suzuki	Barina / Swift / Cultus	86-88	27.61	26.26	29.01	2.75
Holden / Suzuki	Barina / Swift / Cultus	89-99	22.95	22.31	23.59	1.28
Suzuki	Hatch / Alto	82-84	35.49	32.57	38.51	5.94
Suzuki	Alto	85-00	34.74	29.15	40.79	11.65
Suzuki	Ignis	00-02	23.10	19.05	27.70	8.65
Suzuki	Swift	05-06	19.55	14.75	25.44	10.69
Toyota	Starlet	96-99	20.30	19.16	21.50	2.35
Toyota	Echo	99-05	17.98	16.90	19.11	2.21
Toyota	Yaris	05-06	16.39	11.98	22.02	10.04
Volkswagen	Polo	96-00	19.15	16.08	22.64	6.56
Volkswagen	Polo	02-06	18.11	12.34	25.78	13.43
Small Cars			19.26	19.09	19.44	0.35
Alfa Romeo	33	83-92	18.64	15.69	22.01	6.32
Alfa Romeo	75	86-92	17.07	12.15	23.44	11.28
Alfa Romeo	GTV	82-84	15.30	9.87	22.96	13.09
Alfa Romeo	Sprint	82-88	21.27	14.62	29.89	15.28
Alfa Romeo	Alfasud	82-84	21.00	14.22	29.88	15.66
Audi	A3/S3	97-04	15.59	12.12	19.84	7.73
Audi	A4	01-06	11.63	8.97	14.94	5.96
Mini	Mini Cooper	02-06	11.24	6.77	18.10	11.33
Chrysler	Neon	96-99	14.92	12.12	18.24	6.13
Daihatsu	Applause	89-99	20.51	19.18	21.90	2.72
Daewoo	1.5i	94-95	25.76	20.68	31.58	10.91
Daewoo	Cielo	95-97	21.76	20.52	23.04	2.52
Daewoo	Nubira	97-03	16.79	15.48	18.19	2.71
Daewoo	Lanos	97-03	19.51	18.41	20.66	2.25
Ford	Laser	91-94	19.64	19.00	20.30	1.30
Ford	Laser	95-97	18.17	17.09	19.31	2.22
Ford	Capri	89-94	24.57	22.55	26.70	4.15
Ford	Focus LR	02-05	16.99	14.70	19.56	4.86
Ford	Focus LS	05-05	12.37	8.21	18.22	10.01
Fiat	Regata	84-88	15.55	11.25	21.10	9.85

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden	Gemini	82-84	22.55	21.51	23.63	2.12
Holden	Gemini RB	86-87	25.46	23.02	28.06	5.03
Holden	Astra TR	96-98	15.99	14.03	18.16	4.13
Holden	Astra TS	98-06	16.03	15.23	16.86	1.63
Holden	Astra AH	04-06	14.59	11.47	18.37	6.90
Hyundai	Excel	86-90	23.76	22.34	25.24	2.90
Hyundai	Excel	90-94	22.38	21.58	23.20	1.62
Hyundai	Excel / Accent	95-00	21.61	21.09	22.14	1.05
Hyundai	S Coupe	90-96	22.35	20.26	24.59	4.33
Hyundai	Coupe	96-00	17.63	15.30	20.22	4.92
Hyundai	Accent	00-06	18.15	17.04	19.32	2.28
Mitsubishi	Lancer / Mirage CA	89-90	18.33	17.31	19.39	2.08
Mitsubishi	Lancer / Mirage CB	91-92	21.17	18.76	23.81	5.04
Mitsubishi	Lancer / Mirage CC	93-95	18.80	17.92	19.71	1.79
Mitsubishi	Lancer / Mirage CE	96-03	19.38	18.79	19.98	1.19
Mitsubishi	Cordia	83-87	22.57	20.55	24.74	4.19
Mitsubishi	Lancer CH	03-06	18.85	16.51	21.43	4.92
Kia	Rio	00-05	19.05	17.31	20.92	3.61
Kia	Spectra	01-04	20.02	15.30	25.75	10.45
Kia	Cerato	04-06	17.52	12.23	24.45	12.22
Ford / Mazda	Laser / 323 / Familia	82-88	23.06	22.62	23.51	0.90
Mazda	323 / Familia / Lantis	90-93	18.28	17.10	19.51	2.41
Mazda	323 / Familia / Lantis	95-98	18.35	17.27	19.48	2.21
Ford / Mazda	Laser / 323	99-03	17.07	16.10	18.08	1.98
Mazda	MX5 / Eunos Roadster	89-97	20.65	17.25	24.53	7.29
Mazda	MX5 / Eunos Roadster	98-05	16.16	12.81	20.18	7.37
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	18.04	14.91	21.66	6.75
Mazda	3	03-06	14.75	12.94	16.77	3.83
Mercedes Benz	A-Class W168	98-04	16.89	13.10	21.51	8.41
Holden / Nissan	Astra / Pulsar / Langley	84-86	23.17	22.33	24.04	1.72
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	20.09	19.41	20.79	1.38
Nissan	Pulsar / Vector / Sentra	92-95	17.39	16.51	18.31	1.80
Nissan	Pulsar / Vector / Sentra	96-99	18.92	18.11	19.76	1.65
Nissan	Stanza	82-83	21.05	17.66	24.88	7.22
Nissan	Gazelle / Silvia	84-86	20.76	16.89	25.25	8.37
Nissan	Exa	83-86	27.85	23.90	32.17	8.27
Nissan	Exa	87-91	18.64	14.15	24.15	10.00
Nissan	NX/NX-R	91-96	20.81	18.16	23.73	5.57
Nissan	Pulsar	00-05	17.68	16.68	18.74	2.06
Honda	Civic	82-83	21.69	18.80	24.88	6.08
Honda	Civic / Ballade / Shuttle	84-87	22.30	20.73	23.96	3.23
Honda	Civic / Shuttle	88-91	19.99	18.82	21.22	2.40
Honda	Civic	92-95	18.65	17.57	19.79	2.22
Honda	Civic	96-00	17.46	16.41	18.55	2.14
Honda	CRX	87-91	22.81	18.67	27.55	8.88
Honda	CRX	92-98	16.54	12.08	22.22	10.14
Honda	Civic	01-05	13.89	11.96	16.08	4.13
Honda	Integra	86-88	19.61	16.60	23.02	6.42
Honda	Integra	90-92	17.90	15.16	21.01	5.86
Honda	Integra	93-01	16.02	13.83	18.49	4.65
Honda	Integra	02-06	17.56	12.49	24.12	11.63
Honda	Concerto	89-93	17.51	14.58	20.87	6.29

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Peugeot	306	94-01	15.83	13.87	18.00	4.14
Peugeot	307	01-06	11.60	8.58	15.50	6.91
Proton	Wira	95-96	19.12	17.14	21.28	4.14
Renault	19	91-96	19.85	15.51	25.03	9.52
Renault	Scenic	01-05	13.87	9.46	19.87	10.41
Rover	Quintet	82-86	22.18	17.55	27.64	10.09
MG	MGF / MG TF	99-05	11.74	8.16	16.62	8.46
Subaru	Impreza	93-00	18.06	16.93	19.24	2.31
Subaru	Impreza	01-06	13.10	11.45	14.95	3.50
Suzuki	Baleno / Cultus Crescent	95-02	18.93	17.19	20.81	3.62
Suzuki	Liana	01-06	15.64	11.60	20.77	9.18
Toyota	Corolla	82-84	22.37	21.54	23.22	1.68
Toyota	Corolla	86-88	20.85	20.23	21.48	1.25
Toyota / Holden	Corolla / Nova	89-93	19.19	18.71	19.68	0.98
Toyota / Holden	Corolla / Nova	94-97	18.15	17.58	18.73	1.15
Toyota	Corolla	98-01	16.61	15.72	17.53	1.81
Toyota	Corolla	02-06	16.23	15.30	17.20	1.90
Toyota	Tercel	83-88	21.14	17.83	24.87	7.04
Toyota	MR2	87-90	23.53	18.45	29.50	11.05
Toyota	MR2	91-00	18.23	13.07	24.85	11.78
Toyota	Paseo / Cynos	91-99	19.36	17.47	21.39	3.92
Toyota	Corolla 4WD Wagon	92-96	13.90	11.14	17.21	6.06
Volvo	300 Series	84-88	15.19	10.54	21.40	10.86
Volvo	S40/V40	97-04	14.26	11.83	17.09	5.26
Volkswagen	Golf	82-94	20.32	15.27	26.52	11.25
Volkswagen	Golf	95-98	15.29	13.27	17.55	4.29
Volkswagen	Golf / Bora	99-04	14.40	12.74	16.24	3.50
Volkswagen	New Beetle	00-06	13.52	9.36	19.15	9.79
Volkswagen	Golf / Jetta	04-06	11.65	8.04	16.59	8.55

**LOGISTIC REGRESSION ESTIMATES OF
CRASHWORTHINESS INJURY SEVERITY BY MODEL AND MARKET
GROUP**

CRASHWORTHINESS INJURY SEVERITY RATINGS

**New South Wales Data (1987-2006), South Australia Data (1995-2006),
Queensland and Western Australia Data (1991-2006)**

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE			20.64			
Compact Four Wheel Drive Vehicles			19.38	18.35	20.46	2.11
Daihatsu	Feroza / Rocky	89-97	24.27	18.80	30.72	11.91
Daihatsu	Rocky / Rugger	85-98	28.27	21.57	36.11	14.54
Daihatsu	Terios	97-05	20.85	15.51	27.42	11.92
Holden	Cruze	02-06	27.50	19.51	37.24	17.73
Mitsubishi	Outlander	03-06	12.87	3.92	34.81	30.89
Kia	Sportage	98-03	13.99	8.41	22.37	13.96
Ford / Mazda	Escape / Tribute	01-06	20.90	14.48	29.20	14.73
Nissan	X-Trail	01-06	18.93	13.53	25.84	12.30
Lada	Niva	84-99	21.41	13.96	31.39	17.43
Honda	CR-V	97-01	16.30	12.21	21.42	9.21
Honda	CR-V	02-06	14.17	9.10	21.41	12.31
Honda	HR-V	99-02	24.76	14.93	38.17	23.24
Landrover	Freelander	98-06	36.21	20.31	55.83	35.51
Subaru	Forester	97-02	17.69	13.41	22.97	9.55
Subaru	Forester	02-06	15.44	9.97	23.14	13.17
Suzuki	Vitara / Escudo	88-98	21.25	18.35	24.46	6.11
Suzuki	Grand Vitara	99-05	19.80	13.28	28.48	15.20
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	21.45	18.98	24.14	5.16
Suzuki	Jimny	98-06	18.24	10.42	29.97	19.55
Toyota	RAV4	94-00	19.62	16.08	23.71	7.63
Toyota	RAV4	01-06	22.25	17.35	28.08	10.73
Medium Four Wheel Drive Vehicles			19.44	18.16	20.80	2.64
Daewoo / Ssangong	Musso	98-02	26.46	13.98	44.35	30.37
Ford	Territory SX/SY	04-06	21.88	11.96	36.62	24.66
Holden / Isuzu	Jackaroo / Bighorn	82-91	15.48	11.52	20.48	8.96
Holden / Isuzu	Jackaroo / Bighorn	92-97	19.19	13.72	26.18	12.46
Holden / Isuzu	Jackaroo / Bighorn	98-02	18.86	12.31	27.78	15.47
Holden	Frontera / Mu	95-03	21.61	12.53	34.66	22.14
Hyundai	Santa Fe	00-06	21.72	11.06	38.24	27.18
Mitsubishi	Pajero	82-90	24.70	20.96	28.85	7.89
Mitsubishi	Pajero	92-99	21.09	17.63	25.02	7.39
Mitsubishi	Pajero NM / NP / NS	00-06	19.60	12.54	29.30	16.76
Mitsubishi	Challenger	98-06	25.21	16.13	37.12	20.99
Jeep	Cherokee XJ	96-00	21.17	15.88	27.65	11.77
Jeep	Wrangler	96-04	28.94	17.98	43.08	25.10
Land Rover	Defender	92-06	23.85	14.84	36.03	21.19
Land Rover	Discovery	91-02	17.45	12.18	24.38	12.20

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Nissan	Pathfinder / Terrano	88-94	20.80	16.41	26.01	9.60
Nissan	Pathfinder / Terrano / Regulus	95-05	16.08	10.67	23.51	12.84
Toyota	Kluger	03-06	16.39	6.75	34.68	27.93
Toyota	Landcruiser Prado	96-03	17.48	10.48	27.72	17.24
Toyota	Landcruiser Prado	03-06	18.16	10.91	28.67	17.76
Large Four Wheel Drive Vehicles			21.39	20.43	22.40	1.97
Ford	Bronco	82-87	34.13	18.21	54.65	36.43
Ford	Explorer	00-01	24.60	16.73	34.62	17.89
Ford	Explorer	01-05	10.23	3.69	25.29	21.59
Jeep	Grand Cherokee ZG	96-99	23.54	12.88	39.05	26.17
Jeep	Grand Cherokee WJ/WG	99-05	16.96	7.74	33.22	25.48
Mercedes Benz	M-Class W163	98-05	11.89	4.40	28.35	23.95
Nissan	Patrol / Safari	82-87	22.33	17.38	28.22	10.84
Nissan / Ford	Patrol / Maverick / Safari	88-97	21.78	19.31	24.48	5.18
Nissan	Patrol / Safari	98-04	20.68	16.75	25.24	8.48
Land Rover	Range Rover	82-94	20.28	15.11	26.66	11.55
Land Rover	Range Rover	95-02	12.08	4.88	26.91	22.03
Toyota	Landcruiser	82-89	25.90	23.51	28.45	4.95
Toyota	Landcruiser	90-97	23.96	21.85	26.20	4.35
Toyota	Landcruiser	98-06	20.77	17.97	23.88	5.92
Commercial Vehicles- Vans			20.82	19.79	21.89	2.10
Daihatsu	Handivan	82-90	24.53	19.47	30.42	10.96
Daihatsu	Hi-Jet	82-90	28.46	19.42	39.64	20.23
Daihatsu	Handivan / Cuore	99-03	17.23	9.18	30.01	20.83
Ford	Falcon Panel Van	82-95	19.79	16.51	23.54	7.03
Ford	Falcon Panel Van	96-99	15.94	9.11	26.39	17.28
Ford	Transit	95-00	20.99	14.45	29.47	15.02
Ford	Transit	01-06	12.71	6.80	22.52	15.73
Holden	Shuttle / WFR Van	82-87	26.77	18.88	36.49	17.61
Kia	Pregio	02-06	20.23	11.47	33.18	21.71
Mercedes Benz	MB100 / MB140	99-04	19.50	8.58	38.46	29.88
Mercedes Benz	Vito / Viano	99-06	23.49	12.82	39.06	26.24
Mercedes Benz	Sprinter	98-04	17.71	10.24	28.90	18.66
Honda	Acty	83-86	22.64	13.94	34.60	20.66
Holden / Suzuki	Scurry / Carry	82-00	28.66	22.21	36.11	13.90
Toyota	Hiace/Liteace	82-86	24.64	22.02	27.46	5.44
Toyota	Hiace/Liteace	87-89	23.16	19.88	26.80	6.92
Toyota	Hiace/Liteace	90-95	24.37	21.56	27.41	5.84
Toyota	Hiace/Liteace	96-04	20.62	17.41	24.26	6.85
Volkswagen	Caravelle / Transporter	88-94	18.67	8.35	36.62	28.27
Volkswagen	Caravelle / Transporter	95-04	9.85	5.13	18.11	12.98
Commercial Vehicles- Utes			21.28	20.67	21.91	1.24
Ford / Nissan	Falcon Ute / XFN Ute	82-95	23.29	21.18	25.54	4.35
Ford	Falcon Ute	96-99	20.10	16.30	24.53	8.23
Ford	Falcon Ute AU	00-02	20.05	15.95	24.90	8.95
Ford	Falcon Ute BA/BF	03-06	16.33	11.45	22.75	11.31
Ford	Ford F-Series	82-92	17.63	11.89	25.35	13.46

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden	Commodore Ute VG/VP	90-93	25.70	21.07	30.95	9.88
Holden / Isuzu	Rodeo / Pickup	82-85	22.64	16.44	30.32	13.87
Holden / Isuzu	Rodeo / Pickup	86-88	12.95	6.77	23.37	16.60
Holden / Isuzu	Rodeo / Pickup	89-95	24.46	21.85	27.27	5.42
Holden	Rodeo	96-98	20.24	16.83	24.13	7.30
Holden	Rodeo	99-02	20.01	16.55	24.00	7.45
Holden	WB Series	82-85	31.79	26.31	37.81	11.50
Holden	Commodore Ute VR/VS	94-00	24.24	21.85	26.79	4.94
Holden	Commodore VU Ute	00-02	24.77	19.76	30.56	10.81
Holden	Commodore VY/VZ Ute	02-06	19.12	15.36	23.55	8.19
Holden	Rodeo	03-06	18.59	13.73	24.67	10.95
Mitsubishi	Triton MK	96-06	17.46	11.45	25.71	14.26
Kia	Ceres	92-00	27.77	21.55	34.97	13.42
Ford / Mazda	Courier / B-Series / Bounty	98-02	22.24	17.65	27.62	9.97
Ford / Mazda	Courier / Bravo / Bounty	03-06	22.20	15.11	31.40	16.29
Nissan	720 Ute	82-85	21.88	17.57	26.90	9.32
Nissan	Navara	86-91	22.97	20.00	26.25	6.25
Nissan	Navara	92-96	20.77	16.64	25.61	8.97
Nissan	Navara	97-05	20.13	15.22	26.14	10.92
Subaru	Brumby	82-92	28.97	24.86	33.45	8.59
Suzuki	Mighty Boy	85-88	25.35	19.07	32.86	13.79
Toyota	4Runner/Hilux	82-85	23.16	20.70	25.82	5.12
Toyota	4Runner/Hilux	86-88	23.50	20.99	26.21	5.22
Toyota	4Runner/Hilux	89-97	23.54	22.10	25.04	2.94
Toyota	Hilux	98-02	19.12	16.55	21.98	5.43
Toyota	Hilux	03-04	20.58	15.15	27.32	12.17
Toyota	Hilux	05-06	36.16	23.55	51.01	27.46
Large Cars			20.20	19.83	20.56	0.73
BMW	7 Series E23	82-88	20.28	10.30	36.04	25.74
BMW	7 Series E32	89-94	23.07	12.23	39.24	27.01
BMW	7 Series E38	95-01	12.29	3.86	32.82	28.96
Ford	Falcon XE/XF	82-88	23.54	22.58	24.52	1.95
Ford	Fairlane Z & LTD F	82-87	23.16	20.72	25.79	5.07
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	21.96	20.93	23.03	2.10
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	21.96	20.48	23.51	3.04
Ford	Fairlane N & LTD D	88-94	21.26	18.55	24.24	5.69
Ford	Fairlane N & LTD D	95-98	22.78	18.14	28.20	10.07
Ford	Fairlane & LTD AU	99-02	16.20	10.15	24.86	14.71
Ford	Falcon EF/EL	94-98	20.33	19.28	21.42	2.15
Ford	Falcon AU	98-02	18.81	17.38	20.33	2.95
Ford	Taurus	96-98	21.24	13.59	31.61	18.03
Ford	Falcon BA/BF	02-06	16.92	14.58	19.56	4.99
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	23.39	22.45	24.35	1.90
Holden	Statesman/Caprice WB	82-85	39.44	26.04	54.65	28.60
Holden	Stateman/Caprice VQ	90-93	27.73	20.77	35.96	15.19
Holden	Stateman/Caprice VR/VS	94-98	20.86	17.74	24.37	6.63
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	20.52	19.55	21.53	1.98
Holden	Commodore VT/VX	97-02	19.04	17.93	20.20	2.27
Holden	Statesman/Caprice WH	99-03	16.06	10.38	24.02	13.64

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden	Commodore VY/VZ	02-06	15.57	13.60	17.78	4.18
Holden	Monaro	01-06	21.71	13.91	32.25	18.34
Holden	Statesman/Caprice WK/WL	03-06	12.84	5.64	26.64	21.00
Holden	Commodore VB-VL	82-88	24.59	23.60	25.61	2.01
Hyundai	Sonata	98-01	24.80	17.45	33.98	16.52
Hyundai	Sonata EF	02-05	13.73	3.41	41.75	38.34
Hyundai	Sonata	89-97	20.05	17.00	23.50	6.50
Hyundai	Grandeaur / XG	99-00	7.75	1.87	26.99	25.11
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	23.64	22.38	24.94	2.56
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	20.06	18.39	21.84	3.45
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	20.43	19.12	21.80	2.68
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	12.47	6.96	21.34	14.38
Jaguar	XJ6	82-86	30.20	18.28	45.56	27.28
Jaguar	XJ6	87-94	16.52	9.18	27.93	18.75
Mazda	929 / Luce	82-90	23.13	20.12	26.44	6.32
Mazda	929 / Sentia / Efini MS-9	92-96	15.56	7.44	29.68	22.24
Mercedes Benz	S-Class W126	82-92	22.77	15.66	31.89	16.23
Nissan	Skyline	83-88	24.09	21.79	26.55	4.76
Nissan	300ZX / Fairlady Z	90-95	21.44	15.11	29.50	14.39
Nissan	Maxima	90-94	18.51	14.14	23.87	9.73
Nissan	Maxima / Cefiro	95-99	18.24	13.85	23.64	9.79
Nissan	Maxima	00-02	18.55	11.27	28.99	17.72
Nissan	Maxima	03-06	19.55	7.32	42.79	35.47
Honda	Legend	86-95	21.21	15.44	28.42	12.98
Rover	3500	82-87	10.85	4.09	25.79	21.70
Toyota	Camry	98-02	19.34	17.49	21.34	3.84
Toyota	Crown / Cressida / Mark II	82-85	23.70	20.04	27.80	7.76
Toyota	Crown / Cressida / Mark II	86-88	28.32	21.09	36.87	15.77
Toyota	Cressida / Mark II	89-93	20.68	16.54	25.55	9.01
Toyota	Supra	82-90	30.43	22.21	40.12	17.91
Lexus	ES300 / Windom	92-01	21.68	14.80	30.61	15.81
Lexus	LS400 / Celsior	90-00	10.90	3.40	29.81	26.41
Toyota	Avalon	00-05	19.23	14.76	24.66	9.90
Toyota	Camry	02-06	15.01	12.01	18.60	6.58
Volvo	850/S70/V70/C70	92-04	19.76	14.81	25.86	11.05
Volvo	700/900 Series	84-92	16.45	12.48	21.38	8.91
Volvo	960/S90/V90	90-98	20.54	8.34	42.34	34.00
Medium Cars			20.23	19.81	20.66	0.85
Alfa Romeo	156	99-06	14.97	5.53	34.61	29.08
Audi	A4	95-01	19.48	12.50	29.05	16.55
BMW	Z3 E36	97-03	27.65	13.92	47.45	33.53
BMW	3 Series E30	82-91	19.64	16.64	23.03	6.39
BMW	3 Series E36	92-98	19.31	16.43	22.55	6.12
BMW	3 Series E46	99-04	15.59	11.48	20.83	9.35
BMW	5 Series E28	82-88	22.99	16.17	31.60	15.44
BMW	5 Series E34	89-95	22.47	16.17	30.34	14.17
BMW	5 Series E39	96-03	20.23	12.67	30.71	18.04
Chrysler	PT Cruiser	00-06	25.27	9.89	51.00	41.11

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Daewoo	Espero	95-97	25.37	19.02	32.98	13.95
Daewoo	Leganza	97-02	21.14	13.76	31.07	17.31
Ford	Mondeo	95-01	17.05	13.72	20.99	7.27
Ford	Probe	94-98	19.95	10.90	33.66	22.76
Ford	Cougar	99-03	21.60	10.74	38.68	27.94
Holden	Calibra	94-97	16.12	9.85	25.28	15.43
Holden	Camira	82-89	22.68	21.29	24.13	2.84
Holden	Vectra	97-03	16.51	13.52	20.00	6.48
Holden	Vectra ZC	03-05	17.23	8.20	32.68	24.49
Hyundai	Elantra	00-06	20.85	15.79	26.99	11.20
Hyundai	Lantra	91-95	23.44	19.47	27.94	8.48
Hyundai	Lantra	96-00	22.64	19.54	26.08	6.54
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	22.61	21.04	24.26	3.22
Mitsubishi	Starion	82-87	39.43	27.83	52.36	24.53
Mitsubishi	Galant	95-96	21.18	17.27	25.69	8.42
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	21.59	20.01	23.25	3.24
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	20.18	18.25	22.27	4.02
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	22.60	20.25	25.14	4.89
Mazda	626	98-02	20.25	16.04	25.24	9.21
Mazda	RX7	82-85	24.48	18.11	32.21	14.10
Mazda	RX7	86-91	24.08	16.68	33.44	16.76
Mazda	Eunos 500	93-99	16.33	8.67	28.64	19.97
Mazda	Eunos 800	94-00	19.09	6.21	45.67	39.46
Mazda	6	02-06	11.40	6.55	19.10	12.55
Mercedes Benz	C-Class W201	87-93	19.75	13.89	27.31	13.42
Mercedes Benz	C-Class W202	95-00	18.56	13.16	25.53	12.36
Mercedes Benz	CLK C208	97-03	22.20	9.51	43.64	34.13
Mercedes Benz	E-Class W123	82-85	22.67	12.77	36.97	24.20
Mercedes Benz	E-Class W124	86-94	17.53	12.43	24.14	11.71
Mercedes Benz	E-Class W210	96-02	20.46	12.83	31.00	18.16
Mercedes Benz	SLK R170	97-04	12.53	3.09	39.14	36.04
Mercedes Benz	C-Class W203	00-06	18.62	10.21	31.52	21.31
Nissan	Pintara	86-88	23.14	20.56	25.94	5.38
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	23.57	21.69	25.55	3.86
Nissan	Bluebird	82-86	24.93	23.28	26.65	3.37
Nissan	280ZX	82-84	31.81	16.23	52.91	36.69
Nissan	Bluebird	93-97	21.89	18.40	25.84	7.45
Nissan	200SX / Silvia	94-02	23.62	17.72	30.74	13.02
Honda	Accord Euro	03-06	12.81	6.66	23.21	16.55
Honda	Accord	03-06	19.44	9.61	35.39	25.78
Honda	Accord	82-85	23.81	21.22	26.61	5.39
Honda	Accord	86-90	19.96	17.34	22.85	5.50
Honda	Accord	91-93	22.36	17.97	27.47	9.50
Honda	Accord	94-98	22.74	19.14	26.79	7.65
Honda	Accord	99-02	15.64	9.50	24.66	15.16
Honda	Prelude	82-82	18.30	8.42	35.29	26.87
Honda	Prelude	83-91	23.89	21.52	26.43	4.91
Honda	Prelude	92-96	25.14	20.32	30.65	10.32
Honda	Prelude	97-02	16.48	10.14	25.65	15.51
Peugeot	405	89-97	21.15	15.37	28.37	12.99
Peugeot	505	82-93	21.16	14.78	29.35	14.57

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Peugeot	406	96-04	17.38	7.85	34.19	26.34
Porsche	944	82-91	34.20	16.11	58.44	42.32
Renault	Feugo	82-87	21.36	13.20	32.66	19.46
Saab	900 Series	82-92	21.78	16.33	28.43	12.10
Saab	900/9-3	94-02	15.32	10.05	22.65	12.61
Saab	9000	86-97	10.54	6.29	17.14	10.85
Saab	9-5	98-05	12.27	4.02	31.85	27.84
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	23.17	21.11	25.36	4.25
Subaru	Liberty / Legacy	89-93	21.25	19.03	23.64	4.60
Subaru	Liberty / Legacy / Outback	94-98	20.56	17.25	24.33	7.08
Subaru	Liberty / Legacy / Outback	99-03	18.76	14.57	23.82	9.25
Subaru	Liberty / Legacy / Outback	03-06	29.59	18.63	43.54	24.91
Toyota	Corona	82-88	23.08	21.60	24.62	3.01
Toyota	Camry	83-86	23.62	20.47	27.09	6.62
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	22.21	20.98	23.49	2.52
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	22.01	20.63	23.45	2.82
Toyota	Celica	81-85	19.80	16.69	23.33	6.64
Toyota	Celica	86-89	23.83	19.79	28.40	8.61
Toyota	Celica	90-93	22.08	18.24	26.46	8.22
Toyota	Celica	94-99	20.27	15.44	26.16	10.72
Toyota	Celica	00-05	24.18	13.91	38.65	24.74
Lexus	IS200 / IS300	99-04	9.48	3.01	26.14	23.13
Volvo	200 Series	82-93	23.16	19.10	27.77	8.67
Volkswagen	Passat	98-06	11.82	4.96	25.59	20.63
People Movers			21.15	20.06	22.29	2.23
Chrysler	Voyager	97-06	17.26	8.42	32.15	23.73
Holden	Zafira TT	01-05	26.33	11.25	50.21	38.96
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	20.59	15.44	26.92	11.48
Mitsubishi	Nimbus / Chariot	92-98	19.25	13.87	26.08	12.22
Mitsubishi	Nimbus	99-03	20.39	8.64	40.96	32.32
Mitsubishi	Starwagon / L300	83-86	28.28	24.99	31.83	6.84
Mitsubishi	Starwagon / Delica Starwagon	87-93	22.73	20.23	25.43	5.20
Mitsubishi	Starwagon / Delica Spacegear	95-98	20.77	15.84	26.74	10.90
Mitsubishi	Starwagon / Delica Spacegear	98-03	27.36	20.09	36.07	15.99
Kia	Carnival	99-06	9.55	4.73	18.34	13.61
Mazda	MPV	94-99	9.13	2.25	30.49	28.23
Nissan	Prairie	84-86	19.87	13.79	27.79	14.00
Nissan	Serena	92-95	15.10	8.73	24.84	16.12
Honda	Odyssey	95-00	16.96	10.09	27.09	17.01
Toyota	Tarago	83-89	24.49	21.74	27.46	5.72
Toyota	Tarago / Previa / Estima	91-99	22.34	18.21	27.09	8.88
Toyota	Tarago / Previa / Estima	00-06	23.35	14.63	35.13	20.50
Toyota	Spacia	93-00	10.71	3.31	29.56	26.24
Light Cars			22.07	21.50	22.64	1.15
Daihatsu	Charade	82-86	28.13	24.85	31.67	6.82
Daihatsu	Charade	88-92	25.03	22.76	27.44	4.68
Daihatsu	Charade	93-00	26.07	23.35	28.98	5.63

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Daihatsu	Pyzar	97-01	25.99	15.88	39.52	23.64
Daihatsu	Sirion / Storia	98-04	20.68	16.04	26.24	10.20
Daihatsu	Mira	90-96	28.98	23.96	34.57	10.61
Daewoo	Matiz	99-04	18.16	13.47	24.04	10.57
Daewoo	Kalos	03-04	29.40	18.00	44.13	26.13
Ford	Festiva WD/WH/WF	94-01	24.45	22.79	26.19	3.40
Ford	Ka	99-02	21.62	14.19	31.52	17.32
Holden	Barina XC	01-06	17.51	13.67	22.15	8.48
Holden	Barina SB	95-00	20.28	18.05	22.71	4.67
Hyundai	Getz	02-06	30.33	24.10	37.37	13.27
Mitsubishi	Mirage / Colt	82-88	23.69	22.14	25.32	3.18
Ford / Mazda	Festiva WA / 121	87-90	24.25	22.10	26.54	4.44
Mazda	121 / Autozam Review	94-96	20.27	17.35	23.53	6.18
Mazda	121 Metro / Demio	97-02	20.21	16.75	24.18	7.44
Mazda	2	02-06	24.40	15.38	36.42	21.03
Nissan	Micra	95-97	28.49	22.25	35.69	13.44
Honda	Jazz	02-06	21.45	14.99	29.73	14.74
Honda	City	83-86	22.90	19.53	26.65	7.12
Peugeot	205	87-94	22.98	14.26	34.85	20.58
Peugeot	206	99-06	27.42	18.15	39.17	21.02
Renault	Clio	02-06	18.90	7.34	40.66	33.31
Subaru	Sherpa / Fiori / 700 / Rex	89-92	23.90	19.40	29.07	9.67
Suzuki	Swift	82-85	28.75	18.94	41.07	22.12
Holden / Suzuki	Barina / Swift / Cultus	86-88	25.92	23.46	28.53	5.07
Holden / Suzuki	Barina / Swift / Cultus	89-99	23.48	21.98	25.06	3.08
Suzuki	Hatch / Alto	82-84	25.74	21.19	30.89	9.70
Suzuki	Alto	85-00	28.93	22.65	36.14	13.48
Suzuki	Ignis	00-02	22.88	15.49	32.44	16.95
Suzuki	Swift	05-06	19.57	9.36	36.46	27.10
Toyota	Starlet	96-99	23.82	20.91	26.99	6.08
Toyota	Echo	99-05	22.75	19.86	25.93	6.06
Toyota	Yaris	05-06	12.40	5.51	25.55	20.04
Volkswagen	Polo	96-00	13.41	7.12	23.84	16.72
Volkswagen	Polo	02-06	12.97	3.25	39.82	36.58
Small Cars			20.58	20.19	20.98	0.78
Alfa Romeo	33	83-92	23.92	17.17	32.29	15.12
Alfa Romeo	75	86-92	19.27	7.53	41.17	33.64
Alfa Romeo	GTV	82-84	47.25	27.43	67.98	40.55
Alfa Romeo	Sprint	82-88	17.14	7.29	35.25	27.95
Alfa Romeo	Alfasud	82-84	29.04	13.60	51.55	37.95
Audi	A3/S3	97-04	9.12	2.96	24.83	21.87
Audi	A4	01-06	17.10	7.27	35.19	27.92
Mini	Mini Cooper	02-06	13.89	4.46	35.82	31.36
Chrysler	Neon	96-99	21.53	13.12	33.29	20.17
Daihatsu	Applause	89-99	21.50	18.24	25.16	6.93
Daewoo	1.5i	94-95	22.57	11.83	38.78	26.94
Daewoo	Cielo	95-97	20.05	17.36	23.05	5.70
Daewoo	Nubira	97-03	20.71	17.08	24.88	7.80
Daewoo	Lanos	97-03	23.54	20.66	26.68	6.02
Ford	Laser	91-94	21.56	20.06	23.13	3.07
Ford	Laser	95-97	23.93	21.01	27.12	6.11

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Ford	Capri	89-94	22.20	18.08	26.95	8.87
Ford	Focus LR	02-05	15.92	11.26	22.03	10.77
Ford	Focus LS	05-05	10.68	3.39	28.96	25.57
Fiat	Regata	84-88	25.95	12.95	45.24	32.29
Holden	Gemini	82-84	22.92	20.83	25.15	4.31
Holden	Gemini RB	86-87	21.74	17.35	26.87	9.51
Holden	Astra TR	96-98	18.78	14.05	24.64	10.58
Holden	Astra TS	98-06	18.19	15.92	20.71	4.79
Holden	Astra AH	04-06	12.65	5.65	25.94	20.29
Hyundai	Excel	86-90	25.40	22.61	28.40	5.79
Hyundai	Excel	90-94	24.04	22.17	26.02	3.86
Hyundai	Excel / Accent	95-00	21.79	20.50	23.13	2.63
Hyundai	S Coupe	90-96	22.69	17.93	28.27	10.34
Hyundai	Coupe	96-00	25.74	19.04	33.82	14.77
Hyundai	Accent	00-06	24.50	21.08	28.28	7.20
Mitsubishi	Lancer / Mirage CA	89-90	21.73	19.46	24.19	4.73
Mitsubishi	Lancer / Mirage CB	91-92	24.03	19.25	29.56	10.31
Mitsubishi	Lancer / Mirage CC	93-95	22.00	19.86	24.31	4.45
Mitsubishi	Lancer / Mirage CE	96-03	21.55	19.91	23.28	3.37
Mitsubishi	Cordia	83-87	25.21	21.80	28.97	7.17
Mitsubishi	Lancer CH	03-06	25.13	18.58	33.05	14.47
Kia	Rio	00-05	22.49	18.01	27.72	9.71
Kia	Spectra	01-04	20.45	10.54	35.93	25.40
Kia	Cerato	04-06	33.72	16.93	55.95	39.02
Ford / Mazda	Laser / 323 / Familia	82-88	23.22	22.31	24.15	1.84
Mazda	323 / Familia / Lantis	90-93	21.10	18.92	23.45	4.54
Mazda	323 / Familia / Lantis	95-98	22.34	19.42	25.56	6.14
Ford / Mazda	Laser / 323	99-03	18.65	16.04	21.59	5.55
Mazda	MX5 / Eunos Roadster	89-97	20.24	13.10	29.94	16.84
Mazda	MX5 / Eunos Roadster	98-05	15.64	7.67	29.25	21.58
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	15.60	8.99	25.70	16.71
Mazda	3	03-06	12.45	8.29	18.29	10.00
Mercedes Benz	A-Class W168	98-04	17.85	7.55	36.62	29.07
Holden / Nissan	Astra / Pulsar / Langley	84-86	24.70	23.00	26.49	3.49
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	23.41	21.79	25.11	3.32
Nissan	Pulsar / Vector / Sentra	92-95	20.91	18.84	23.15	4.31
Nissan	Pulsar / Vector / Sentra	96-99	22.02	19.88	24.31	4.42
Nissan	Stanza	82-83	19.53	12.97	28.34	15.37
Nissan	Gazelle / Silvia	84-86	26.43	22.52	30.76	8.25
Nissan	Exa	83-86	26.23	19.32	34.56	15.24
Nissan	Exa	87-91	27.98	17.86	40.97	23.10
Nissan	NX/NX-R	91-96	28.66	22.09	36.28	14.19
Nissan	Pulsar	00-05	21.93	19.14	25.00	5.86
Honda	Civic	82-83	23.49	19.74	27.71	7.98
Honda	Civic / Ballade / Shuttle	84-87	25.52	22.95	28.28	5.33
Honda	Civic / Shuttle	88-91	22.59	20.34	25.00	4.65
Honda	Civic	92-95	20.51	18.11	23.13	5.02
Honda	Civic	96-00	20.44	17.55	23.66	6.11
Honda	CRX	87-91	27.69	22.73	33.27	10.53
Honda	CRX	92-98	27.17	17.60	39.45	21.86
Honda	Civic	01-05	22.19	16.33	29.42	13.09
Honda	Integra	86-88	23.36	19.13	28.19	9.07

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Honda	Integra	90-92	20.97	16.01	26.98	10.97
Honda	Integra	93-01	19.68	14.62	25.96	11.34
Honda	Integra	02-06	14.54	5.82	31.90	26.08
Honda	Concerto	89-93	23.44	17.99	29.94	11.94
Peugeot	306	94-01	13.27	9.47	18.28	8.81
Peugeot	307	01-06	15.44	7.35	29.59	22.24
Proton	Wira	95-96	23.94	18.69	30.10	11.41
Renault	19	91-96	14.78	7.20	27.94	20.74
Renault	Scenic	01-05	7.75	1.10	38.78	37.68
Rover	Quintet	82-86	22.03	14.14	32.65	18.50
MG	MGF / MG TF	99-05	20.51	9.31	39.35	30.04
Subaru	Impreza	93-00	23.58	20.68	26.74	6.06
Subaru	Impreza	01-06	19.08	13.62	26.06	12.44
Suzuki	Baleno / Cultus Crescent	95-02	19.42	14.99	24.79	9.80
Suzuki	Liana	01-06	22.29	11.95	37.75	25.79
Toyota	Corolla	82-84	22.95	21.32	24.65	3.33
Toyota	Corolla	86-88	22.85	21.43	24.33	2.90
Toyota / Holden	Corolla / Nova	89-93	22.20	21.01	23.44	2.43
Toyota / Holden	Corolla / Nova	94-97	21.87	20.35	23.48	3.14
Toyota	Corolla	98-01	17.06	14.73	19.68	4.95
Toyota	Corolla	02-06	19.37	16.82	22.22	5.40
Toyota	Tercel	83-88	24.43	17.69	32.71	15.02
Toyota	MR2	87-90	28.38	21.10	36.98	15.88
Toyota	MR2	91-00	16.94	10.18	26.85	16.68
Toyota	Paseo / Cynos	91-99	20.17	15.96	25.16	9.21
Toyota	Corolla 4WD Wagon	92-96	26.09	15.76	39.96	24.20
Volvo	300 Series	84-88	27.66	15.49	44.37	28.89
Volvo	S40/V40	97-04	19.38	12.06	29.65	17.59
Volkswagen	Golf	82-94	32.09	20.84	45.89	25.06
Volkswagen	Golf	95-98	18.87	12.51	27.44	14.93
Volkswagen	Golf / Bora	99-04	13.98	9.63	19.85	10.22
Volkswagen	New Beetle	00-06	7.36	1.84	25.27	23.43
Volkswagen	Golf / Jetta	04-06	4.68	1.12	17.52	16.39

**CRASHWORTHINESS RATINGS OF
1982-2006 MODELS OF CARS INVOLVED IN
CRASHES DURING 1987-2006
with
(1) 95 % CONFIDENCE LIMITS
(2) 90 % CONFIDENCE LIMITS**

**CRASHWORTHINESS RATINGS
(WITH 95% CONFIDENCE LIMITS)**

**New South Wales Data (1987-2006), South Australia Data (1995-2006),
Queensland and Western Australia Data (1991-2006)**

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE			3.42			
Compact Four Wheel Drive Vehicles			3.44	3.24	3.65	0.41
Daihatsu	Feroza / Rocky	89-97	4.62	3.51	6.09	2.58
Daihatsu	Rocky / Rugged	85-98	6.17	4.57	8.33	3.76
Daihatsu	Terios	97-05	5.00	3.66	6.84	3.17
Holden	Cruze	02-06	5.71	3.94	8.29	4.35
Mitsubishi	Outlander	03-06	1.91	0.60	6.15	5.56
Kia	Sportage	98-03	2.27	1.34	3.83	2.49
Ford / Mazda	Escape / Tribute	01-06	2.78	1.89	4.10	2.22
Nissan	X-Trail	01-06	2.92	2.05	4.16	2.11
Lada	Niva	84-99	3.96	2.49	6.28	3.78
Honda	CR-V	97-01	2.13	1.58	2.89	1.31
Honda	CR-V	02-06	1.78	1.13	2.81	1.68
Honda	HR-V	99-02	3.51	2.08	5.95	3.87
Landrover	Freelander	98-06	4.79	2.56	8.98	6.43
Subaru	Forester	97-02	2.33	1.73	3.13	1.40
Subaru	Forester	02-06	2.17	1.38	3.41	2.03
Suzuki	Vitara / Escudo	88-98	4.31	3.68	5.05	1.37
Suzuki	Grand Vitara	99-05	2.91	1.90	4.45	2.55
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	5.47	4.80	6.24	1.44
Suzuki	Jimny	98-06	3.89	2.18	6.94	4.77
Toyota	RAV4	94-00	3.02	2.44	3.74	1.30
Toyota	RAV4	01-06	3.20	2.46	4.17	1.71
Medium Four Wheel Drive Vehicles			2.50	2.32	2.70	0.38
Daewoo / Ssangong	Musso	98-02	2.88	1.44	5.77	4.34
Ford	Territory SX/SY	04-06	2.25	1.18	4.28	3.09
Holden / Isuzu	Jackaroo / Bighorn	82-91	3.09	2.25	4.24	1.99
Holden / Isuzu	Jackaroo / Bighorn	92-97	2.71	1.87	3.92	2.06
Holden / Isuzu	Jackaroo / Bighorn	98-02	2.55	1.63	4.00	2.37
Holden	Frontera / Mu	95-03	3.31	1.87	5.86	4.00
Hyundai	Santa Fe	00-06	3.40	1.72	6.71	4.99
Mitsubishi	Pajero	82-90	4.26	3.53	5.13	1.60
Mitsubishi	Pajero	92-99	2.54	2.09	3.09	1.00
Mitsubishi	Pajero NM / NP / NS	00-06	1.64	1.02	2.63	1.61
Mitsubishi	Challenger	98-06	3.26	2.01	5.28	3.27
Jeep	Cherokee XJ	96-00	2.69	1.96	3.70	1.74

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Jeep	Wrangler	96-04	3.89	2.25	6.71	4.45
Land Rover	Defender	92-06	3.06	1.82	5.15	3.34
Land Rover	Discovery	91-02	2.08	1.41	3.05	1.64
Nissan	Pathfinder / Terrano	88-94	2.92	2.14	3.99	1.85
Nissan	Pathfinder / Terrano / Regulus	95-05	1.83	1.17	2.84	1.66
Toyota	Kluger	03-06	1.70	0.70	4.14	3.44
Toyota	Landcruiser Prado	96-03	1.72	1.01	2.92	1.90
Toyota	Landcruiser Prado	03-06	1.56	0.91	2.67	1.75
Large Four Wheel Drive Vehicles			2.65	2.51	2.79	0.28
Ford	Bronco	82-87	5.08	2.59	9.95	7.36
Ford	Explorer	00-01	4.23	2.76	6.47	3.71
Ford	Explorer	01-05	1.02	0.35	2.96	2.61
Jeep	Grand Cherokee ZG	96-99	2.59	1.32	5.06	3.74
Jeep	Grand Cherokee WJ/WG	99-05	1.68	0.70	4.01	3.30
Mercedes Benz	M-Class W163	98-05	1.15	0.42	3.12	2.70
Nissan	Patrol / Safari	82-87	3.12	2.36	4.11	1.75
Nissan / Ford	Patrol / Maverick / Safari	88-97	2.57	2.24	2.94	0.69
Nissan	Patrol / Safari	98-04	2.07	1.64	2.62	0.97
Land Rover	Range Rover	82-94	2.70	1.93	3.76	1.83
Land Rover	Range Rover	95-02	1.53	0.58	4.02	3.44
Toyota	Landcruiser	82-89	4.04	3.62	4.51	0.89
Toyota	Landcruiser	90-97	2.94	2.65	3.27	0.61
Toyota	Landcruiser	98-06	2.52	2.15	2.97	0.82
Commercial Vehicles- Vans			3.66	3.46	3.87	0.41
Daihatsu	Handivan	82-90	8.28	6.49	10.57	4.08
Daihatsu	Hi-Jet	82-90	11.98	8.04	17.85	9.81
Daihatsu	Handivan / Cuore	99-03	4.75	2.51	8.97	6.45
Ford	Falcon Panel Van	82-95	3.28	2.71	3.98	1.28
Ford	Falcon Panel Van	96-99	2.14	1.19	3.84	2.65
Ford	Transit	95-00	2.78	1.87	4.12	2.25
Ford	Transit	01-06	1.32	0.67	2.59	1.92
Holden	Shuttle / WFR Van	82-87	6.04	4.17	8.76	4.59
Kia	Pregio	02-06	3.77	2.10	6.76	4.65
Mercedes Benz	MB100 / MB140	99-04	2.01	0.86	4.67	3.80
Mercedes Benz	Vito / Viano	99-06	2.05	1.07	3.92	2.85
Mercedes Benz	Sprinter	98-04	2.45	1.37	4.39	3.03
Honda	Acty	83-86	3.63	2.16	6.09	3.93
Holden / Suzuki	Scurry / Carry	82-00	9.63	7.32	12.66	5.34
Toyota	Hiace/Liteace	82-86	5.38	4.74	6.10	1.36
Toyota	Hiace/Liteace	87-89	4.77	4.01	5.67	1.66
Toyota	Hiace/Liteace	90-95	4.27	3.73	4.90	1.17
Toyota	Hiace/Liteace	96-04	3.04	2.54	3.65	1.11
Volkswagen	Caravelle / Transporter	88-94	2.52	1.13	5.62	4.49
Volkswagen	Caravelle / Transporter	95-04	1.46	0.76	2.81	2.05
Commercial Vehicles- Utes			3.25	3.15	3.36	0.21

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Ford / Nissan	Falcon Ute / XFN Ute	82-95	3.65	3.29	4.06	0.77
Ford	Falcon Ute	96-99	2.95	2.35	3.70	1.35
Ford	Falcon Ute AU	00-02	2.44	1.90	3.14	1.23
Ford	Falcon Ute BA/BF	03-06	1.77	1.20	2.59	1.38
Ford	Ford F-Series	82-92	2.58	1.71	3.90	2.19
Holden	Commodore Ute VG/VP	90-93	4.21	3.38	5.24	1.85
Holden / Isuzu	Rodeo / Pickup	82-85	4.33	3.07	6.10	3.03
Holden / Isuzu	Rodeo / Pickup	86-88	2.46	1.27	4.74	3.47
Holden / Isuzu	Rodeo / Pickup	89-95	4.07	3.59	4.60	1.01
Holden	Rodeo	96-98	3.15	2.58	3.85	1.27
Holden	Rodeo	99-02	3.00	2.44	3.68	1.24
Holden	WB Series	82-85	5.06	4.09	6.26	2.17
Holden	Commodore Ute VR/VS	94-00	3.64	3.25	4.09	0.84
Holden	Commodore VU Ute	00-02	3.14	2.44	4.03	1.59
Holden	Commodore VY/VZ Ute	02-06	2.49	1.96	3.17	1.21
Holden	Rodeo	03-06	2.32	1.68	3.20	1.51
Mitsubishi	Triton MK	96-06	2.15	1.38	3.34	1.96
Kia	Ceres	92-00	5.50	4.19	7.23	3.05
Ford / Mazda	Courier / B-Series / Bounty	98-02	2.94	2.27	3.79	1.52
Ford / Mazda	Courier / Bravo / Bounty	03-06	3.99	2.65	6.01	3.37
Nissan	720 Ute	82-85	4.10	3.23	5.20	1.97
Nissan	Navara	86-91	3.75	3.21	4.39	1.17
Nissan	Navara	92-96	3.05	2.39	3.89	1.50
Nissan	Navara	97-05	2.23	1.64	3.02	1.38
Subaru	Brumby	82-92	6.00	5.05	7.13	2.08
Suzuki	Mighty Boy	85-88	9.16	6.81	12.32	5.50
Toyota	4Runner/Hilux	82-85	4.33	3.82	4.90	1.08
Toyota	4Runner/Hilux	86-88	4.13	3.63	4.70	1.08
Toyota	4Runner/Hilux	89-97	3.79	3.53	4.08	0.54
Toyota	Hilux	98-02	2.70	2.31	3.16	0.85
Toyota	Hilux	03-04	2.69	1.93	3.76	1.83
Toyota	Hilux	05-06	4.88	3.09	7.73	4.65
Large Cars			3.14	3.08	3.21	0.13
BMW	7 Series E23	82-88	2.47	1.21	5.07	3.87
BMW	7 Series E32	89-94	3.20	1.61	6.37	4.76
BMW	7 Series E38	95-01	1.20	0.36	3.94	3.58
Ford	Falcon XE/XF	82-88	4.03	3.85	4.22	0.37
Ford	Fairlane Z & LTD F	82-87	3.87	3.42	4.38	0.96
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	3.59	3.40	3.78	0.38
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	3.29	3.05	3.56	0.51
Ford	Fairlane N & LTD D	88-94	2.90	2.49	3.37	0.88
Ford	Fairlane N & LTD D	95-98	3.05	2.37	3.92	1.55
Ford	Fairlane & LTD AU	99-02	2.22	1.38	3.59	2.21
Ford	Falcon EF/EL	94-98	3.03	2.86	3.21	0.35
Ford	Falcon AU	98-02	2.73	2.51	2.97	0.47
Ford	Taurus	96-98	3.40	2.12	5.45	3.33
Ford	Falcon BA/BF	02-06	2.28	1.95	2.68	0.73

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	3.95	3.77	4.13	0.36
Holden	Statesman/Caprice WB	82-85	6.35	3.74	10.78	7.03
Holden	Stateman/Caprice VQ	90-93	4.12	2.97	5.72	2.75
Holden	Stateman/Caprice VR/VS	94-98	3.10	2.59	3.69	1.10
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	3.18	3.01	3.35	0.34
Holden	Commodore VT/VX	97-02	2.88	2.70	3.08	0.37
Holden	Statesman/Caprice WH	99-03	1.91	1.22	3.00	1.78
Holden	Commodore VY/VZ	02-06	2.26	1.95	2.61	0.65
Holden	Monaro	01-06	3.40	2.12	5.46	3.34
Holden	Statesman/Caprice WK/WL	03-06	2.19	0.96	4.99	4.04
Holden	Commodore VB-VL	82-88	4.51	4.31	4.72	0.42
Hyundai	Sonata	98-01	3.92	2.72	5.66	2.93
Hyundai	Sonata EF	02-05	2.46	0.64	9.36	8.71
Hyundai	Sonata	89-97	3.44	2.88	4.10	1.22
Hyundai	Grandeur / XG	99-00	0.95	0.23	3.85	3.62
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	4.28	4.03	4.55	0.52
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	3.01	2.74	3.31	0.56
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	3.28	3.05	3.52	0.47
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	1.74	0.97	3.14	2.18
Jaguar	XJ6	82-86	5.12	3.03	8.65	5.63
Jaguar	XJ6	87-94	2.06	1.11	3.80	2.69
Mazda	929 / Luce	82-90	4.30	3.68	5.03	1.34
Mazda	929 / Sentia / Efini MS-9	92-96	2.65	1.25	5.65	4.41
Mercedes Benz	S-Class W126	82-92	3.03	2.04	4.50	2.46
Nissan	Skyline	83-88	4.26	3.80	4.79	0.99
Nissan	300ZX / Fairlady Z	90-95	3.86	2.63	5.67	3.04
Nissan	Maxima	90-94	2.87	2.11	3.90	1.79
Nissan	Maxima / Cefiro	95-99	2.96	2.19	4.00	1.81
Nissan	Maxima	00-02	2.75	1.61	4.70	3.09
Nissan	Maxima	03-06	2.92	1.08	7.86	6.77
Honda	Legend	86-95	2.67	1.86	3.81	1.95
Rover	3500	82-87	2.07	0.77	5.57	4.81
Toyota	Camry	98-02	2.94	2.64	3.27	0.63
Toyota	Crown / Cressida / Mark II	82-85	4.30	3.56	5.19	1.63
Toyota	Crown / Cressida / Mark II	86-88	4.15	3.01	5.71	2.70
Toyota	Cressida / Mark II	89-93	2.86	2.25	3.64	1.39
Toyota	Supra	82-90	5.97	4.22	8.45	4.23
Lexus	ES300 / Windom	92-01	3.24	2.14	4.91	2.77
Lexus	LS400 / Celsior	90-00	1.40	0.43	4.49	4.06
Toyota	Avalon	00-05	2.60	1.97	3.44	1.47
Toyota	Camry	02-06	2.23	1.77	2.82	1.05
Volvo	850/S70/V70/C70	92-04	2.68	1.98	3.64	1.65
Volvo	700/900 Series	84-92	2.44	1.83	3.25	1.43
Volvo	960/S90/V90	90-98	3.21	1.27	8.09	6.81
Medium Cars			3.42	3.34	3.50	0.16
Alfa Romeo	156	99-06	2.18	0.82	5.75	4.92

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Audi	A4	95-01	2.42	1.51	3.86	2.35
BMW	Z3 E36	97-03	3.01	1.45	6.28	4.83
BMW	3 Series E30	82-91	3.23	2.69	3.86	1.17
BMW	3 Series E36	92-98	3.05	2.57	3.62	1.05
BMW	3 Series E46	99-04	2.26	1.65	3.09	1.45
BMW	5 Series E28	82-88	3.14	2.16	4.58	2.42
BMW	5 Series E34	89-95	3.41	2.38	4.88	2.49
BMW	5 Series E39	96-03	1.97	1.20	3.25	2.05
Chrysler	PT Cruiser	00-06	4.85	1.92	12.23	10.31
Daewoo	Espero	95-97	5.40	3.99	7.32	3.33
Daewoo	Leganza	97-02	3.09	1.98	4.84	2.86
Ford	Mondeo	95-01	2.49	1.97	3.15	1.18
Ford	Probe	94-98	4.08	2.18	7.62	5.44
Ford	Cougar	99-03	3.24	1.59	6.63	5.04
Holden	Calibra	94-97	2.43	1.42	4.13	2.71
Holden	Camira	82-89	5.13	4.78	5.50	0.72
Holden	Vectra	97-03	2.64	2.14	3.26	1.12
Holden	Vectra ZC	03-05	2.16	0.98	4.76	3.78
Hyundai	Elantra	00-06	3.56	2.67	4.74	2.07
Hyundai	Lantra	91-95	4.66	3.82	5.67	1.85
Hyundai	Lantra	96-00	3.92	3.35	4.59	1.24
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	4.51	4.16	4.89	0.73
Mitsubishi	Starion	82-87	8.27	5.33	12.82	7.49
Mitsubishi	Galant	95-96	3.85	3.07	4.82	1.75
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	4.16	3.81	4.53	0.72
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	3.49	3.11	3.92	0.80
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	3.34	2.95	3.78	0.84
Mazda	626	98-02	3.06	2.38	3.93	1.55
Mazda	RX7	82-85	5.13	3.69	7.14	3.45
Mazda	RX7	86-91	3.65	2.36	5.65	3.29
Mazda	Eunos 500	93-99	3.45	1.81	6.56	4.75
Mazda	Eunos 800	94-00	2.69	0.86	8.40	7.54
Mazda	6	02-06	1.84	1.03	3.29	2.26
Mercedes Benz	C-Class W201	87-93	3.08	2.12	4.49	2.38
Mercedes Benz	C-Class W202	95-00	2.38	1.66	3.42	1.76
Mercedes Benz	CLK C208	97-03	3.20	1.36	7.49	6.12
Mercedes Benz	E-Class W123	82-85	2.98	1.66	5.36	3.71
Mercedes Benz	E-Class W124	86-94	2.58	1.80	3.69	1.89
Mercedes Benz	E-Class W210	96-02	2.30	1.41	3.76	2.35
Mercedes Benz	SLK R170	97-04	2.04	0.52	7.92	7.39
Mercedes Benz	C-Class W203	00-06	2.46	1.33	4.52	3.19
Nissan	Pintara	86-88	4.14	3.63	4.71	1.08
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	4.50	4.10	4.94	0.83
Nissan	Bluebird	82-86	5.07	4.69	5.47	0.78
Nissan	280ZX	82-84	5.18	2.46	10.90	8.43
Nissan	Bluebird	93-97	3.14	2.55	3.86	1.31
Nissan	200SX / Silvia	94-02	3.12	2.29	4.26	1.98
Honda	Accord Euro	03-06	1.92	0.99	3.73	2.74
Honda	Accord	03-06	2.69	1.29	5.62	4.33

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Honda	Accord	82-85	4.99	4.33	5.75	1.42
Honda	Accord	86-90	3.23	2.73	3.83	1.10
Honda	Accord	91-93	2.94	2.28	3.77	1.49
Honda	Accord	94-98	3.34	2.76	4.04	1.28
Honda	Accord	99-02	2.26	1.34	3.79	2.45
Honda	Prelude	82-82	3.29	1.50	7.22	5.71
Honda	Prelude	83-91	4.20	3.69	4.77	1.08
Honda	Prelude	92-96	4.11	3.24	5.21	1.98
Honda	Prelude	97-02	2.47	1.49	4.08	2.59
Peugeot	405	89-97	2.99	2.07	4.31	2.23
Peugeot	505	82-93	2.50	1.67	3.73	2.06
Peugeot	406	96-04	1.21	0.50	2.95	2.45
Porsche	944	82-91	5.20	2.22	12.16	9.93
Renault	Feugo	82-87	3.68	2.18	6.21	4.03
Saab	900 Series	82-92	3.63	2.66	4.96	2.30
Saab	900/9-3	94-02	1.93	1.25	2.98	1.73
Saab	9000	86-97	1.51	0.89	2.56	1.67
Saab	9-5	98-05	2.09	0.70	6.29	5.59
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	4.54	4.09	5.04	0.94
Subaru	Liberty / Legacy	89-93	3.46	3.06	3.92	0.87
Subaru	Liberty / Legacy / Outback	94-98	2.97	2.44	3.62	1.17
Subaru	Liberty / Legacy / Outback	99-03	2.40	1.84	3.13	1.29
Subaru	Liberty / Legacy / Outback	03-06	3.71	2.27	6.06	3.79
Toyota	Corona	82-88	4.62	4.30	4.97	0.67
Toyota	Camry	83-86	4.48	3.84	5.23	1.40
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	3.73	3.51	3.97	0.47
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	3.75	3.50	4.02	0.53
Toyota	Celica	81-85	3.95	3.27	4.76	1.48
Toyota	Celica	86-89	4.20	3.43	5.14	1.71
Toyota	Celica	90-93	3.77	3.07	4.64	1.57
Toyota	Celica	94-99	3.65	2.74	4.86	2.12
Toyota	Celica	00-05	3.91	2.24	6.82	4.58
Lexus	IS200 / IS300	99-04	1.29	0.42	3.98	3.56
Volvo	200 Series	82-93	3.14	2.55	3.86	1.31
Volkswagen	Passat	98-06	1.36	0.56	3.31	2.75
People Movers			3.80	3.58	4.03	0.44
Chrysler	Voyager	97-06	2.04	0.99	4.18	3.19
Holden	Zafira TT	01-05	3.62	1.58	8.28	6.70
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	4.29	3.09	5.96	2.87
Mitsubishi	Nimbus / Chariot	92-98	3.61	2.56	5.11	2.55
Mitsubishi	Nimbus	99-03	2.35	1.00	5.52	4.52
Mitsubishi	Starwagon / L300	83-86	7.07	6.17	8.11	1.94
Mitsubishi	Starwagon / Delica Starwagon	87-93	4.71	4.15	5.35	1.20
Mitsubishi	Starwagon / Delica Spacegear	95-98	3.59	2.70	4.78	2.07
Mitsubishi	Starwagon / Delica Spacegear	98-03	4.18	3.01	5.80	2.80
Kia	Carnival	99-06	0.93	0.46	1.90	1.45
Mazda	MPV	94-99	1.00	0.25	3.94	3.69

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Nissan	Prairie	84-86	4.35	2.91	6.48	3.57
Nissan	Serena	92-95	2.09	1.07	4.10	3.03
Honda	Odyssey	95-00	2.08	1.21	3.59	2.39
Toyota	Tarago	83-89	5.43	4.78	6.18	1.39
Toyota	Tarago / Previa / Estima	91-99	2.88	2.32	3.58	1.26
Toyota	Tarago / Previa / Estima	00-06	2.76	1.70	4.49	2.79
Toyota	Spacia	93-00	1.82	0.57	5.83	5.26
Light Cars			4.88	4.75	5.02	0.28
Daihatsu	Charade	82-86	7.59	6.59	8.73	2.14
Daihatsu	Charade	88-92	5.94	5.36	6.58	1.21
Daihatsu	Charade	93-00	5.78	5.15	6.50	1.36
Daihatsu	Pyzar	97-01	4.99	3.01	8.27	5.26
Daihatsu	Sirion / Storia	98-04	4.39	3.37	5.72	2.36
Daihatsu	Mira	90-96	9.66	7.86	11.88	4.03
Daewoo	Matiz	99-04	4.93	3.61	6.74	3.13
Daewoo	Kalos	03-04	5.75	3.44	9.61	6.17
Ford	Festiva WD/WH/WF	94-01	5.64	5.22	6.08	0.86
Ford	Ka	99-02	4.29	2.76	6.67	3.91
Holden	Barina XC	01-06	3.22	2.48	4.18	1.69
Holden	Barina SB	95-00	4.39	3.88	4.96	1.08
Hyundai	Getz	02-06	5.77	4.52	7.36	2.84
Mitsubishi	Mirage / Colt	82-88	5.60	5.20	6.03	0.84
Ford / Mazda	Festiva WA / 121	87-90	5.68	5.13	6.28	1.15
Mazda	121 / Autozam Review	94-96	4.43	3.76	5.22	1.46
Mazda	121 Metro / Demio	97-02	4.01	3.28	4.89	1.61
Mazda	2	02-06	4.25	2.62	6.88	4.26
Nissan	Micra	95-97	6.29	4.82	8.20	3.38
Honda	Jazz	02-06	3.97	2.71	5.83	3.12
Honda	City	83-86	7.00	5.65	8.67	3.03
Peugoet	205	87-94	3.94	2.33	6.67	4.34
Peugeot	206	99-06	4.31	2.80	6.63	3.84
Renault	Clio	02-06	3.73	1.47	9.46	7.99
Subaru	Sherpa / Fiori / 700 / Rex	89-92	8.55	6.85	10.67	3.83
Suzuki	Swift	82-85	7.70	4.95	11.99	7.05
Holden / Suzuki	Barina / Swift / Cultus	86-88	7.16	6.41	7.99	1.57
Holden / Suzuki	Barina / Swift / Cultus	89-99	5.39	5.02	5.79	0.77
Suzuki	Hatch / Alto	82-84	9.14	7.43	11.23	3.80
Suzuki	Alto	85-00	10.05	7.53	13.41	5.88
Suzuki	Ignis	00-02	5.28	3.49	8.01	4.52
Suzuki	Swift	05-06	3.83	1.82	8.04	6.21
Toyota	Starlet	96-99	4.84	4.20	5.56	1.36
Toyota	Echo	99-05	4.09	3.53	4.74	1.20
Toyota	Yaris	05-06	2.03	0.88	4.68	3.79
Volkswagen	Polo	96-00	2.57	1.36	4.83	3.47
Volkswagen	Polo	02-06	2.35	0.61	9.05	8.44
Small Cars			3.97	3.88	4.05	0.17

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Alfa Romeo	33	83-92	4.46	3.11	6.39	3.27
Alfa Romeo	75	86-92	3.29	1.30	8.32	7.02
Alfa Romeo	GTV	82-84	7.23	3.88	13.47	9.58
Alfa Romeo	Sprint	82-88	3.65	1.52	8.78	7.26
Alfa Romeo	Alfasud	82-84	6.10	2.81	13.22	10.41
Audi	A3/S3	97-04	1.42	0.47	4.32	3.85
Audi	A4	01-06	1.99	0.86	4.61	3.76
Mini	Mini Cooper	02-06	1.56	0.48	5.07	4.59
Chrysler	Neon	96-99	3.21	1.93	5.36	3.44
Daihatsu	Applause	89-99	4.41	3.70	5.25	1.54
Daewoo	1.5i	94-95	5.81	3.08	10.99	7.92
Daewoo	Cielo	95-97	4.36	3.74	5.09	1.34
Daewoo	Nubira	97-03	3.48	2.83	4.27	1.43
Daewoo	Lanos	97-03	4.59	3.99	5.28	1.29
Ford	Laser	91-94	4.23	3.91	4.58	0.67
Ford	Laser	95-97	4.35	3.78	5.01	1.24
Ford	Capri	89-94	5.46	4.39	6.78	2.39
Ford	Focus LR	02-05	2.71	1.88	3.90	2.02
Ford	Focus LS	05-05	1.32	0.41	4.24	3.83
Fiat	Regata	84-88	4.04	1.99	8.20	6.21
Holden	Gemini	82-84	5.17	4.65	5.74	1.09
Holden	Gemini RB	86-87	5.53	4.35	7.04	2.68
Holden	Astra TR	96-98	3.00	2.20	4.09	1.89
Holden	Astra TS	98-06	2.92	2.53	3.36	0.83
Holden	Astra AH	04-06	1.85	0.82	4.13	3.31
Hyundai	Excel	86-90	6.03	5.30	6.87	1.57
Hyundai	Excel	90-94	5.38	4.93	5.88	0.95
Hyundai	Excel / Accent	95-00	4.71	4.41	5.02	0.61
Hyundai	S Coupe	90-96	5.07	3.96	6.50	2.54
Hyundai	Coupe	96-00	4.54	3.30	6.25	2.95
Hyundai	Accent	00-06	4.45	3.79	5.22	1.43
Mitsubishi	Lancer / Mirage CA	89-90	3.98	3.52	4.50	0.98
Mitsubishi	Lancer / Mirage CB	91-92	5.09	3.98	6.50	2.52
Mitsubishi	Lancer / Mirage CC	93-95	4.14	3.70	4.63	0.93
Mitsubishi	Lancer / Mirage CE	96-03	4.18	3.84	4.54	0.70
Mitsubishi	Cordia	83-87	5.69	4.80	6.75	1.94
Mitsubishi	Lancer CH	03-06	4.74	3.45	6.50	3.05
Kia	Rio	00-05	4.29	3.39	5.42	2.04
Kia	Spectra	01-04	4.09	2.09	8.03	5.94
Kia	Cerato	04-06	5.91	2.94	11.88	8.95
Ford / Mazda	Laser / 323 / Familia	82-88	5.35	5.12	5.60	0.47
Mazda	323 / Familia / Lantis	90-93	3.86	3.40	4.37	0.98
Mazda	323 / Familia / Lantis	95-98	4.10	3.53	4.76	1.23
Ford / Mazda	Laser / 323	99-03	3.18	2.71	3.74	1.02
Mazda	MX5 / Eunos Roadster	89-97	4.18	2.66	6.57	3.90
Mazda	MX5 / Eunos Roadster	98-05	2.53	1.24	5.16	3.92
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	2.81	1.61	4.93	3.33
Mazda	3	03-06	1.84	1.21	2.79	1.58
Mercedes Benz	A-Class W168	98-04	3.02	1.30	6.99	5.69

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden / Nissan	Astra / Pulsar / Langley	84-86	5.72	5.28	6.20	0.91
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	4.70	4.35	5.09	0.74
Nissan	Pulsar / Vector / Sentra	92-95	3.64	3.24	4.08	0.84
Nissan	Pulsar / Vector / Sentra	96-99	4.17	3.73	4.65	0.91
Nissan	Stanza	82-83	4.11	2.68	6.31	3.63
Nissan	Gazelle / Silvia	84-86	5.49	4.25	7.08	2.83
Nissan	Exa	83-86	7.30	5.26	10.14	4.87
Nissan	Exa	87-91	5.22	3.18	8.57	5.39
Nissan	NX/NX-R	91-96	5.96	4.50	7.91	3.41
Nissan	Pulsar	00-05	3.88	3.35	4.49	1.14
Honda	Civic	82-83	5.09	4.09	6.35	2.26
Honda	Civic / Ballade / Shuttle	84-87	5.69	5.01	6.46	1.45
Honda	Civic / Shuttle	88-91	4.52	4.01	5.09	1.08
Honda	Civic	92-95	3.83	3.34	4.38	1.04
Honda	Civic	96-00	3.57	3.04	4.19	1.16
Honda	CRX	87-91	6.32	4.81	8.29	3.49
Honda	CRX	92-98	4.49	2.70	7.47	4.77
Honda	Civic	01-05	3.08	2.22	4.29	2.07
Honda	Integra	86-88	4.58	3.55	5.90	2.35
Honda	Integra	90-92	3.75	2.76	5.11	2.35
Honda	Integra	93-01	3.15	2.28	4.35	2.07
Honda	Integra	02-06	2.55	1.01	6.45	5.44
Honda	Concerto	89-93	4.10	3.00	5.61	2.60
Peugeot	306	94-01	2.10	1.47	2.99	1.52
Peugeot	307	01-06	1.79	0.83	3.85	3.01
Proton	Wira	95-96	4.58	3.52	5.95	2.43
Renault	19	91-96	2.93	1.42	6.06	4.64
Renault	Scenic	01-05	1.07	0.16	7.19	7.03
Rover	Quintet	82-86	4.89	3.03	7.89	4.86
MG	MGF / MG TF	99-05	2.41	1.07	5.44	4.38
Subaru	Impreza	93-00	4.26	3.69	4.91	1.23
Subaru	Impreza	01-06	2.50	1.76	3.55	1.79
Suzuki	Baleno / Cultus Crescent	95-02	3.68	2.81	4.81	2.01
Suzuki	Liana	01-06	3.49	1.82	6.69	4.87
Toyota	Corolla	82-84	5.13	4.73	5.57	0.84
Toyota	Corolla	86-88	4.76	4.44	5.11	0.67
Toyota / Holden	Corolla / Nova	89-93	4.26	4.01	4.52	0.51
Toyota / Holden	Corolla / Nova	94-97	3.97	3.67	4.29	0.62
Toyota	Corolla	98-01	2.83	2.43	3.31	0.88
Toyota	Corolla	02-06	3.14	2.70	3.66	0.95
Toyota	Tercel	83-88	5.16	3.64	7.33	3.69
Toyota	MR2	87-90	6.68	4.63	9.63	5.01
Toyota	MR2	91-00	3.09	1.72	5.54	3.82
Toyota	Paseo / Cynos	91-99	3.90	3.04	5.01	1.97
Toyota	Corolla 4WD Wagon	92-96	3.63	2.16	6.08	3.92
Volvo	300 Series	84-88	4.20	2.22	7.96	5.75
Volvo	S40/V40	97-04	2.76	1.70	4.50	2.81
Volkswagen	Golf	82-94	6.52	4.02	10.58	6.56
Volkswagen	Golf	95-98	2.88	1.90	4.38	2.49
Volkswagen	Golf / Bora	99-04	2.01	1.37	2.95	1.58

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Volkswagen	New Beetle	00-06	1.00	0.25	3.99	3.74
Volkswagen	Golf / Jetta	04-06	0.55	0.13	2.31	2.18

**CRASHWORTHINESS RATINGS
(WITH 90% CONFIDENCE LIMITS)**

**New South Wales Data (1987-2006), South Australia Data (1995-2006),
Queensland and Western Australia Data (1991-2006)**

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE			3.42			
Compact Four Wheel Drive Vehicles			3.44	3.27	3.62	0.34
Daihatsu	Feroza / Rocky	89-97	4.62	3.67	5.82	2.15
Daihatsu	Rocky / Rugged	85-98	6.17	4.80	7.93	3.13
Daihatsu	Terios	97-05	5.00	3.85	6.50	2.64
Holden	Cruze	02-06	5.71	4.18	7.80	3.62
Mitsubishi	Outlander	03-06	1.91	0.72	5.08	4.36
Kia	Sportage	98-03	2.27	1.46	3.52	2.06
Ford / Mazda	Escape / Tribute	01-06	2.78	2.01	3.85	1.84
Nissan	X-Trail	01-06	2.92	2.17	3.92	1.75
Lada	Niva	84-99	3.96	2.69	5.82	3.13
Honda	CR-V	97-01	2.13	1.66	2.75	1.09
Honda	CR-V	02-06	1.78	1.22	2.61	1.39
Honda	HR-V	99-02	3.51	2.26	5.46	3.20
Landrover	Freelander	98-06	4.79	2.83	8.11	5.28
Subaru	Forester	97-02	2.33	1.82	2.99	1.17
Subaru	Forester	02-06	2.17	1.49	3.17	1.68
Suzuki	Vitara / Escudo	88-98	4.31	3.78	4.92	1.14
Suzuki	Grand Vitara	99-05	2.91	2.03	4.15	2.12
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	5.47	4.91	6.11	1.20
Suzuki	Jimny	98-06	3.89	2.39	6.31	3.92
Toyota	RAV4	94-00	3.02	2.53	3.61	1.09
Toyota	RAV4	01-06	3.20	2.57	3.99	1.43
Medium Four Wheel Drive Vehicles			2.50	2.35	2.67	0.32
Daewoo / Ssangong	Musso	98-02	2.88	1.61	5.15	3.54
Ford	Territory SX/SY	04-06	2.25	1.31	3.85	2.54
Holden / Isuzu	Jackaroo / Bighorn	82-91	3.09	2.37	4.03	1.66
Holden / Isuzu	Jackaroo / Bighorn	92-97	2.71	1.98	3.69	1.71
Holden / Isuzu	Jackaroo / Bighorn	98-02	2.55	1.75	3.72	1.96
Holden	Frontera / Mu	95-03	3.31	2.05	5.34	3.29
Hyundai	Santa Fe	00-06	3.40	1.93	6.01	4.08
Mitsubishi	Pajero	82-90	4.26	3.64	4.98	1.33
Mitsubishi	Pajero	92-99	2.54	2.15	2.99	0.84
Mitsubishi	Pajero NM / NP / NS	00-06	1.64	1.10	2.44	1.34
Mitsubishi	Challenger	98-06	3.26	2.18	4.88	2.70
Jeep	Cherokee XJ	96-00	2.69	2.07	3.51	1.45

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Jeep	Wrangler	96-04	3.89	2.46	6.14	3.67
Land Rover	Defender	92-06	3.06	1.98	4.73	2.75
Land Rover	Discovery	91-02	2.08	1.50	2.86	1.36
Nissan	Pathfinder / Terrano	88-94	2.92	2.25	3.79	1.54
Nissan	Pathfinder / Terrano / Regulus	95-05	1.83	1.26	2.64	1.38
Toyota	Kluger	03-06	1.70	0.81	3.58	2.77
Toyota	Landcruiser Prado	96-03	1.72	1.10	2.68	1.57
Toyota	Landcruiser Prado	03-06	1.56	1.00	2.44	1.45
Large Four Wheel Drive Vehicles			2.65	2.54	2.77	0.23
Ford	Bronco	82-87	5.08	2.90	8.92	6.02
Ford	Explorer	00-01	4.23	2.96	6.04	3.08
Ford	Explorer	01-05	1.02	0.42	2.48	2.07
Jeep	Grand Cherokee ZG	96-99	2.59	1.47	4.53	3.06
Jeep	Grand Cherokee WJ/WG	99-05	1.68	0.81	3.48	2.67
Mercedes Benz	M-Class W163	98-05	1.15	0.50	2.65	2.15
Nissan	Patrol / Safari	82-87	3.12	2.47	3.93	1.46
Nissan / Ford	Patrol / Maverick / Safari	88-97	2.57	2.29	2.87	0.58
Nissan	Patrol / Safari	98-04	2.07	1.71	2.52	0.81
Land Rover	Range Rover	82-94	2.70	2.04	3.56	1.52
Land Rover	Range Rover	95-02	1.53	0.68	3.43	2.75
Toyota	Landcruiser	82-89	4.04	3.69	4.43	0.74
Toyota	Landcruiser	90-97	2.94	2.70	3.21	0.51
Toyota	Landcruiser	98-06	2.52	2.20	2.89	0.69
Commercial Vehicles- Vans			3.66	3.49	3.84	0.34
Daihatsu	Handivan	82-90	8.28	6.76	10.16	3.40
Daihatsu	Hi-Jet	82-90	11.98	8.59	16.73	8.14
Daihatsu	Handivan / Cuore	99-03	4.75	2.79	8.08	5.29
Ford	Falcon Panel Van	82-95	3.28	2.79	3.86	1.07
Ford	Falcon Panel Van	96-99	2.14	1.31	3.49	2.18
Ford	Transit	95-00	2.78	2.00	3.86	1.87
Ford	Transit	01-06	1.32	0.75	2.32	1.57
Holden	Shuttle / WFR Van	82-87	6.04	4.43	8.24	3.82
Kia	Pregio	02-06	3.77	2.31	6.14	3.83
Mercedes Benz	MB100 / MB140	99-04	2.01	0.99	4.07	3.08
Mercedes Benz	Vito / Viano	99-06	2.05	1.19	3.52	2.33
Mercedes Benz	Sprinter	98-04	2.45	1.50	4.00	2.49
Honda	Acty	83-86	3.63	2.35	5.59	3.24
Holden / Suzuki	Scurry / Carry	82-00	9.63	7.66	12.11	4.45
Toyota	Hiace/Liteace	82-86	5.38	4.84	5.98	1.14
Toyota	Hiace/Liteace	87-89	4.77	4.12	5.51	1.39
Toyota	Hiace/Liteace	90-95	4.27	3.81	4.79	0.98
Toyota	Hiace/Liteace	96-04	3.04	2.61	3.54	0.93
Volkswagen	Caravelle / Transporter	88-94	2.52	1.29	4.93	3.64
Volkswagen	Caravelle / Transporter	95-04	1.46	0.84	2.53	1.68
Commercial Vehicles- Utes			3.25	3.16	3.34	0.18

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Ford / Nissan	Falcon Ute / XFN Ute	82-95	3.65	3.35	3.99	0.64
Ford	Falcon Ute	96-99	2.95	2.44	3.57	1.13
Ford	Falcon Ute AU	00-02	2.44	1.98	3.01	1.03
Ford	Falcon Ute BA/BF	03-06	1.77	1.28	2.43	1.15
Ford	Ford F-Series	82-92	2.58	1.83	3.65	1.82
Holden	Commodore Ute VG/VP	90-93	4.21	3.51	5.05	1.55
Holden / Isuzu	Rodeo / Pickup	82-85	4.33	3.25	5.77	2.52
Holden / Isuzu	Rodeo / Pickup	86-88	2.46	1.42	4.26	2.84
Holden / Isuzu	Rodeo / Pickup	89-95	4.07	3.66	4.51	0.84
Holden	Rodeo	96-98	3.15	2.67	3.73	1.06
Holden	Rodeo	99-02	3.00	2.52	3.56	1.04
Holden	WB Series	82-85	5.06	4.24	6.05	1.81
Holden	Commodore Ute VR/VS	94-00	3.64	3.31	4.01	0.70
Holden	Commodore VU Ute	00-02	3.14	2.55	3.87	1.32
Holden	Commodore VY/VZ Ute	02-06	2.49	2.04	3.05	1.01
Holden	Rodeo	03-06	2.32	1.77	3.03	1.26
Mitsubishi	Triton MK	96-06	2.15	1.49	3.11	1.62
Kia	Ceres	92-00	5.50	4.38	6.92	2.54
Ford / Mazda	Courier / B-Series / Bounty	98-02	2.94	2.37	3.64	1.27
Ford / Mazda	Courier / Bravo / Bounty	03-06	3.99	2.83	5.62	2.79
Nissan	720 Ute	82-85	4.10	3.36	5.00	1.64
Nissan	Navara	86-91	3.75	3.30	4.28	0.98
Nissan	Navara	92-96	3.05	2.48	3.74	1.25
Nissan	Navara	97-05	2.23	1.72	2.87	1.15
Subaru	Brumby	82-92	6.00	5.20	6.94	1.74
Suzuki	Mighty Boy	85-88	9.16	7.15	11.74	4.58
Toyota	4Runner/Hilux	82-85	4.33	3.90	4.80	0.90
Toyota	4Runner/Hilux	86-88	4.13	3.71	4.61	0.90
Toyota	4Runner/Hilux	89-97	3.79	3.57	4.03	0.46
Toyota	Hilux	98-02	2.70	2.37	3.08	0.71
Toyota	Hilux	03-04	2.69	2.04	3.56	1.52
Toyota	Hilux	05-06	4.88	3.33	7.17	3.85
Large Cars			3.14	3.09	3.20	0.11
BMW	7 Series E23	82-88	2.47	1.36	4.51	3.16
BMW	7 Series E32	89-94	3.20	1.80	5.69	3.89
BMW	7 Series E38	95-01	1.20	0.44	3.24	2.80
Ford	Falcon XE/XF	82-88	4.03	3.87	4.19	0.31
Ford	Fairlane Z & LTD F	82-87	3.87	3.49	4.29	0.80
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	3.59	3.43	3.75	0.32
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	3.29	3.09	3.51	0.43
Ford	Fairlane N & LTD D	88-94	2.90	2.55	3.29	0.74
Ford	Fairlane N & LTD D	95-98	3.05	2.47	3.76	1.29
Ford	Fairlane & LTD AU	99-02	2.22	1.49	3.32	1.83
Ford	Falcon EF/EL	94-98	3.03	2.89	3.18	0.30
Ford	Falcon AU	98-02	2.73	2.54	2.93	0.39
Ford	Taurus	96-98	3.40	2.29	5.05	2.76
Ford	Falcon BA/BF	02-06	2.28	2.00	2.61	0.61

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	3.95	3.80	4.10	0.30
Holden	Statesman/Caprice WB	82-85	6.35	4.08	9.89	5.80
Holden	Stateman/Caprice VQ	90-93	4.12	3.13	5.42	2.29
Holden	Stateman/Caprice VR/VS	94-98	3.10	2.67	3.59	0.92
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	3.18	3.04	3.32	0.28
Holden	Commodore VT/VX	97-02	2.88	2.73	3.04	0.31
Holden	Statesman/Caprice WH	99-03	1.91	1.31	2.79	1.48
Holden	Commodore VY/VZ	02-06	2.26	2.00	2.55	0.55
Holden	Monaro	01-06	3.40	2.29	5.05	2.76
Holden	Statesman/Caprice WK/WL	03-06	2.19	1.10	4.36	3.27
Holden	Commodore VB-VL	82-88	4.51	4.34	4.69	0.35
Hyundai	Sonata	98-01	3.92	2.89	5.33	2.44
Hyundai	Sonata EF	02-05	2.46	0.80	7.52	6.72
Hyundai	Sonata	89-97	3.44	2.96	3.99	1.02
Hyundai	Grandeur / XG	99-00	0.95	0.29	3.06	2.77
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	4.28	4.07	4.51	0.43
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	3.01	2.79	3.26	0.47
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	3.28	3.08	3.48	0.39
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	1.74	1.06	2.85	1.79
Jaguar	XJ6	82-86	5.12	3.30	7.94	4.64
Jaguar	XJ6	87-94	2.06	1.23	3.44	2.21
Mazda	929 / Luce	82-90	4.30	3.78	4.90	1.12
Mazda	929 / Sentia / Efini MS-9	92-96	2.65	1.41	5.00	3.59
Mercedes Benz	S-Class W126	82-92	3.03	2.17	4.21	2.04
Nissan	Skyline	83-88	4.26	3.87	4.70	0.83
Nissan	300ZX / Fairlady Z	90-95	3.86	2.80	5.33	2.52
Nissan	Maxima	90-94	2.87	2.22	3.71	1.49
Nissan	Maxima / Cefiro	95-99	2.96	2.30	3.81	1.50
Nissan	Maxima	00-02	2.75	1.76	4.30	2.55
Nissan	Maxima	03-06	2.92	1.27	6.68	5.41
Honda	Legend	86-95	2.67	1.98	3.60	1.62
Rover	3500	82-87	2.07	0.90	4.74	3.84
Toyota	Camry	98-02	2.94	2.69	3.21	0.52
Toyota	Crown / Cressida / Mark II	82-85	4.30	3.67	5.03	1.36
Toyota	Crown / Cressida / Mark II	86-88	4.15	3.17	5.42	2.25
Toyota	Cressida / Mark II	89-93	2.86	2.34	3.50	1.16
Toyota	Supra	82-90	5.97	4.46	7.98	3.52
Lexus	ES300 / Windom	92-01	3.24	2.29	4.59	2.30
Lexus	LS400 / Celsior	90-00	1.40	0.53	3.71	3.19
Toyota	Avalon	00-05	2.60	2.06	3.29	1.23
Toyota	Camry	02-06	2.23	1.84	2.71	0.88
Volvo	850/S70/V70/C70	92-04	2.68	2.08	3.46	1.38
Volvo	700/900 Series	84-92	2.44	1.91	3.10	1.19
Volvo	960/S90/V90	90-98	3.21	1.48	6.95	5.47
Medium Cars			3.42	3.35	3.48	0.13
Alfa Romeo	156	99-06	2.18	0.97	4.91	3.94

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Audi	A4	95-01	2.42	1.64	3.58	1.94
BMW	Z3 E36	97-03	3.01	1.63	5.57	3.94
BMW	3 Series E30	82-91	3.23	2.77	3.75	0.97
BMW	3 Series E36	92-98	3.05	2.64	3.52	0.88
BMW	3 Series E46	99-04	2.26	1.73	2.94	1.21
BMW	5 Series E28	82-88	3.14	2.29	4.30	2.01
BMW	5 Series E34	89-95	3.41	2.53	4.60	2.07
BMW	5 Series E39	96-03	1.97	1.30	2.99	1.69
Chrysler	PT Cruiser	00-06	4.85	2.23	10.51	8.28
Daewoo	Espero	95-97	5.40	4.19	6.97	2.78
Daewoo	Leganza	97-02	3.09	2.13	4.50	2.37
Ford	Mondeo	95-01	2.49	2.04	3.03	0.99
Ford	Probe	94-98	4.08	2.41	6.88	4.47
Ford	Cougar	99-03	3.24	1.78	5.90	4.11
Holden	Calibra	94-97	2.43	1.55	3.79	2.24
Holden	Camira	82-89	5.13	4.83	5.43	0.60
Holden	Vectra	97-03	2.64	2.21	3.15	0.94
Holden	Vectra ZC	03-05	2.16	1.12	4.19	3.07
Hyundai	Elantra	00-06	3.56	2.80	4.52	1.73
Hyundai	Lantra	91-95	4.66	3.95	5.49	1.55
Hyundai	Lantra	96-00	3.92	3.44	4.47	1.04
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	4.51	4.21	4.82	0.61
Mitsubishi	Starion	82-87	8.27	5.72	11.93	6.21
Mitsubishi	Galant	95-96	3.85	3.19	4.65	1.46
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	4.16	3.87	4.47	0.60
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	3.49	3.17	3.84	0.67
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	3.34	3.01	3.71	0.70
Mazda	626	98-02	3.06	2.48	3.78	1.29
Mazda	RX7	82-85	5.13	3.89	6.76	2.87
Mazda	RX7	86-91	3.65	2.54	5.27	2.73
Mazda	Eunos 500	93-99	3.45	2.01	5.91	3.89
Mazda	Eunos 800	94-00	2.69	1.04	6.97	5.94
Mazda	6	02-06	1.84	1.13	2.99	1.86
Mercedes Benz	C-Class W201	87-93	3.08	2.25	4.23	1.97
Mercedes Benz	C-Class W202	95-00	2.38	1.76	3.22	1.46
Mercedes Benz	CLK C208	97-03	3.20	1.57	6.51	4.95
Mercedes Benz	E-Class W123	82-85	2.98	1.82	4.87	3.05
Mercedes Benz	E-Class W124	86-94	2.58	1.91	3.48	1.58
Mercedes Benz	E-Class W210	96-02	2.30	1.53	3.47	1.94
Mercedes Benz	SLK R170	97-04	2.04	0.65	6.34	5.69
Mercedes Benz	C-Class W203	00-06	2.46	1.47	4.09	2.62
Nissan	Pintara	86-88	4.14	3.71	4.61	0.90
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	4.50	4.17	4.86	0.70
Nissan	Bluebird	82-86	5.07	4.75	5.40	0.65
Nissan	280ZX	82-84	5.18	2.78	9.65	6.87
Nissan	Bluebird	93-97	3.14	2.63	3.73	1.10
Nissan	200SX / Silvia	94-02	3.12	2.41	4.05	1.64
Honda	Accord Euro	03-06	1.92	1.10	3.35	2.24
Honda	Accord	03-06	2.69	1.45	4.98	3.53

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Honda	Accord	82-85	4.99	4.43	5.61	1.19
Honda	Accord	86-90	3.23	2.81	3.72	0.92
Honda	Accord	91-93	2.94	2.38	3.62	1.24
Honda	Accord	94-98	3.34	2.85	3.92	1.07
Honda	Accord	99-02	2.26	1.46	3.48	2.02
Honda	Prelude	82-82	3.29	1.71	6.35	4.64
Honda	Prelude	83-91	4.20	3.77	4.67	0.90
Honda	Prelude	92-96	4.11	3.36	5.01	1.65
Honda	Prelude	97-02	2.47	1.62	3.76	2.14
Peugeot	405	89-97	2.99	2.20	4.06	1.86
Peugeot	505	82-93	2.50	1.79	3.50	1.71
Peugeot	406	96-04	1.21	0.58	2.55	1.97
Porsche	944	82-91	5.20	2.55	10.58	8.03
Renault	Feugo	82-87	3.68	2.37	5.70	3.33
Saab	900 Series	82-92	3.63	2.80	4.71	1.91
Saab	900/9-3	94-02	1.93	1.34	2.78	1.43
Saab	9000	86-97	1.51	0.97	2.35	1.38
Saab	9-5	98-05	2.09	0.83	5.26	4.42
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	4.54	4.16	4.95	0.79
Subaru	Liberty / Legacy	89-93	3.46	3.12	3.85	0.73
Subaru	Liberty / Legacy / Outback	94-98	2.97	2.52	3.50	0.98
Subaru	Liberty / Legacy / Outback	99-03	2.40	1.92	3.00	1.08
Subaru	Liberty / Legacy / Outback	03-06	3.71	2.46	5.59	3.13
Toyota	Corona	82-88	4.62	4.35	4.91	0.56
Toyota	Camry	83-86	4.48	3.93	5.10	1.17
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	3.73	3.54	3.93	0.39
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	3.75	3.54	3.98	0.44
Toyota	Celica	81-85	3.95	3.37	4.61	1.24
Toyota	Celica	86-89	4.20	3.54	4.97	1.43
Toyota	Celica	90-93	3.77	3.17	4.48	1.31
Toyota	Celica	94-99	3.65	2.87	4.63	1.76
Toyota	Celica	00-05	3.91	2.45	6.23	3.78
Lexus	IS200 / IS300	99-04	1.29	0.50	3.31	2.80
Volvo	200 Series	82-93	3.14	2.64	3.73	1.09
Volkswagen	Passat	98-06	1.36	0.65	2.86	2.22
People Movers			3.80	3.62	3.99	0.37
Chrysler	Voyager	97-06	2.04	1.12	3.72	2.60
Holden	Zafira TT	01-05	3.62	1.81	7.24	5.43
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	4.29	3.26	5.65	2.39
Mitsubishi	Nimbus / Chariot	92-98	3.61	2.71	4.83	2.12
Mitsubishi	Nimbus	99-03	2.35	1.15	4.80	3.65
Mitsubishi	Starwagon / L300	83-86	7.07	6.31	7.93	1.62
Mitsubishi	Starwagon / Delica Starwagon	87-93	4.71	4.24	5.24	1.00
Mitsubishi	Starwagon / Delica Spacegear	95-98	3.59	2.83	4.56	1.73
Mitsubishi	Starwagon / Delica Spacegear	98-03	4.18	3.17	5.50	2.33
Kia	Carnival	99-06	0.93	0.51	1.69	1.18
Mazda	MPV	94-99	1.00	0.32	3.15	2.84

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Nissan	Prairie	84-86	4.35	3.11	6.07	2.96
Nissan	Serena	92-95	2.09	1.19	3.67	2.48
Honda	Odyssey	95-00	2.08	1.32	3.29	1.97
Toyota	Tarago	83-89	5.43	4.88	6.05	1.17
Toyota	Tarago / Previa / Estima	91-99	2.88	2.40	3.46	1.05
Toyota	Tarago / Previa / Estima	00-06	2.76	1.84	4.15	2.30
Toyota	Spacia	93-00	1.82	0.69	4.82	4.13
Light Cars			4.88	4.77	5.00	0.23
Daihatsu	Charade	82-86	7.59	6.75	8.54	1.79
Daihatsu	Charade	88-92	5.94	5.46	6.47	1.02
Daihatsu	Charade	93-00	5.78	5.25	6.38	1.13
Daihatsu	Pyzar	97-01	4.99	3.27	7.61	4.34
Daihatsu	Sirion / Storia	98-04	4.39	3.51	5.48	1.96
Daihatsu	Mira	90-96	9.66	8.13	11.49	3.36
Daewoo	Matiz	99-04	4.93	3.79	6.40	2.61
Daewoo	Kalos	03-04	5.75	3.75	8.84	5.09
Ford	Festiva WD/WH/WF	94-01	5.64	5.29	6.00	0.72
Ford	Ka	99-02	4.29	2.96	6.21	3.24
Holden	Barina XC	01-06	3.22	2.59	4.00	1.41
Holden	Barina SB	95-00	4.39	3.96	4.86	0.91
Hyundai	Getz	02-06	5.77	4.70	7.07	2.37
Mitsubishi	Mirage / Colt	82-88	5.60	5.26	5.96	0.70
Ford / Mazda	Festiva WA / 121	87-90	5.68	5.22	6.18	0.96
Mazda	121 / Autozam Review	94-96	4.43	3.86	5.08	1.22
Mazda	121 Metro / Demio	97-02	4.01	3.39	4.73	1.34
Mazda	2	02-06	4.25	2.83	6.36	3.52
Nissan	Micra	95-97	6.29	5.03	7.85	2.82
Honda	Jazz	02-06	3.97	2.88	5.48	2.59
Honda	City	83-86	7.00	5.85	8.38	2.53
Peugoet	205	87-94	3.94	2.54	6.12	3.58
Peugeot	206	99-06	4.31	3.00	6.18	3.18
Renault	Clio	02-06	3.73	1.71	8.13	6.42
Subaru	Sherpa / Fiori / 700 / Rex	89-92	8.55	7.10	10.29	3.19
Suzuki	Swift	82-85	7.70	5.32	11.16	5.84
Holden / Suzuki	Barina / Swift / Cultus	86-88	7.16	6.53	7.85	1.32
Holden / Suzuki	Barina / Swift / Cultus	89-99	5.39	5.08	5.72	0.64
Suzuki	Hatch / Alto	82-84	9.14	7.69	10.86	3.17
Suzuki	Alto	85-00	10.05	7.90	12.79	4.90
Suzuki	Ignis	00-02	5.28	3.73	7.48	3.75
Suzuki	Swift	05-06	3.83	2.06	7.12	5.06
Toyota	Starlet	96-99	4.84	4.30	5.44	1.14
Toyota	Echo	99-05	4.09	3.62	4.63	1.01
Toyota	Yaris	05-06	2.03	1.01	4.08	3.07
Volkswagen	Polo	96-00	2.57	1.51	4.36	2.85
Volkswagen	Polo	02-06	2.35	0.76	7.26	6.50
Small Cars			3.97	3.90	4.04	0.14

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Alfa Romeo	33	83-92	4.46	3.30	6.02	2.72
Alfa Romeo	75	86-92	3.29	1.51	7.15	5.64
Alfa Romeo	GTV	82-84	7.23	4.30	12.17	7.87
Alfa Romeo	Sprint	82-88	3.65	1.75	7.60	5.85
Alfa Romeo	Alfasud	82-84	6.10	3.19	11.65	8.46
Audi	A3/S3	97-04	1.42	0.56	3.60	3.04
Audi	A4	01-06	1.99	0.98	4.02	3.04
Mini	Mini Cooper	02-06	1.56	0.58	4.18	3.60
Chrysler	Neon	96-99	3.21	2.09	4.93	2.84
Daihatsu	Applause	89-99	4.41	3.81	5.10	1.29
Daewoo	1.5i	94-95	5.81	3.41	9.91	6.50
Daewoo	Cielo	95-97	4.36	3.84	4.96	1.12
Daewoo	Nubira	97-03	3.48	2.93	4.13	1.20
Daewoo	Lanos	97-03	4.59	4.08	5.16	1.08
Ford	Laser	91-94	4.23	3.96	4.52	0.56
Ford	Laser	95-97	4.35	3.86	4.90	1.03
Ford	Capri	89-94	5.46	4.55	6.54	1.99
Ford	Focus LR	02-05	2.71	1.99	3.67	1.68
Ford	Focus LS	05-05	1.32	0.50	3.51	3.01
Fiat	Regata	84-88	4.04	2.23	7.30	5.07
Holden	Gemini	82-84	5.17	4.73	5.64	0.91
Holden	Gemini RB	86-87	5.53	4.53	6.77	2.24
Holden	Astra TR	96-98	3.00	2.32	3.89	1.57
Holden	Astra TS	98-06	2.92	2.59	3.28	0.69
Holden	Astra AH	04-06	1.85	0.94	3.62	2.68
Hyundai	Excel	86-90	6.03	5.42	6.72	1.31
Hyundai	Excel	90-94	5.38	5.00	5.79	0.79
Hyundai	Excel / Accent	95-00	4.71	4.46	4.97	0.51
Hyundai	S Coupe	90-96	5.07	4.12	6.24	2.12
Hyundai	Coupe	96-00	4.54	3.47	5.93	2.46
Hyundai	Accent	00-06	4.45	3.89	5.08	1.19
Mitsubishi	Lancer / Mirage CA	89-90	3.98	3.60	4.41	0.82
Mitsubishi	Lancer / Mirage CB	91-92	5.09	4.14	6.25	2.11
Mitsubishi	Lancer / Mirage CC	93-95	4.14	3.77	4.54	0.78
Mitsubishi	Lancer / Mirage CE	96-03	4.18	3.89	4.48	0.59
Mitsubishi	Cordia	83-87	5.69	4.94	6.56	1.62
Mitsubishi	Lancer CH	03-06	4.74	3.63	6.18	2.54
Kia	Rio	00-05	4.29	3.52	5.22	1.70
Kia	Spectra	01-04	4.09	2.33	7.19	4.86
Kia	Cerato	04-06	5.91	3.29	10.60	7.31
Ford / Mazda	Laser / 323 / Familia	82-88	5.35	5.16	5.56	0.40
Mazda	323 / Familia / Lantis	90-93	3.86	3.47	4.29	0.82
Mazda	323 / Familia / Lantis	95-98	4.10	3.61	4.65	1.03
Ford / Mazda	Laser / 323	99-03	3.18	2.79	3.64	0.85
Mazda	MX5 / Eunos Roadster	89-97	4.18	2.86	6.10	3.23
Mazda	MX5 / Eunos Roadster	98-05	2.53	1.39	4.59	3.20
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	2.81	1.76	4.50	2.74
Mazda	3	03-06	1.84	1.29	2.61	1.31
Mercedes Benz	A-Class W168	98-04	3.02	1.49	6.09	4.60

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Holden / Nissan	Astra / Pulsar / Langley	84-86	5.72	5.35	6.12	0.77
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	4.70	4.40	5.02	0.62
Nissan	Pulsar / Vector / Sentra	92-95	3.64	3.30	4.01	0.70
Nissan	Pulsar / Vector / Sentra	96-99	4.17	3.80	4.57	0.76
Nissan	Stanza	82-83	4.11	2.87	5.88	3.01
Nissan	Gazelle / Silvia	84-86	5.49	4.43	6.79	2.36
Nissan	Exa	83-86	7.30	5.55	9.61	4.05
Nissan	Exa	87-91	5.22	3.44	7.90	4.46
Nissan	NX/NX-R	91-96	5.96	4.71	7.55	2.85
Nissan	Pulsar	00-05	3.88	3.43	4.38	0.95
Honda	Civic	82-83	5.09	4.24	6.13	1.89
Honda	Civic / Ballade / Shuttle	84-87	5.69	5.12	6.33	1.21
Honda	Civic / Shuttle	88-91	4.52	4.09	4.99	0.90
Honda	Civic	92-95	3.83	3.41	4.29	0.87
Honda	Civic	96-00	3.57	3.12	4.08	0.97
Honda	CRX	87-91	6.32	5.03	7.93	2.91
Honda	CRX	92-98	4.49	2.94	6.87	3.94
Honda	Civic	01-05	3.08	2.34	4.06	1.73
Honda	Integra	86-88	4.58	3.70	5.67	1.96
Honda	Integra	90-92	3.75	2.90	4.86	1.96
Honda	Integra	93-01	3.15	2.41	4.13	1.72
Honda	Integra	02-06	2.55	1.18	5.54	4.37
Honda	Concerto	89-93	4.10	3.16	5.33	2.17
Peugeot	306	94-01	2.10	1.56	2.82	1.26
Peugeot	307	01-06	1.79	0.94	3.40	2.45
Proton	Wira	95-96	4.58	3.68	5.70	2.02
Renault	19	91-96	2.93	1.60	5.39	3.79
Renault	Scenic	01-05	1.07	0.22	5.27	5.05
Rover	Quintet	82-86	4.89	3.28	7.29	4.02
MG	MGF / MG TF	99-05	2.41	1.22	4.76	3.55
Subaru	Impreza	93-00	4.26	3.78	4.80	1.03
Subaru	Impreza	01-06	2.50	1.86	3.35	1.49
Suzuki	Baleno / Cultus Crescent	95-02	3.68	2.93	4.61	1.67
Suzuki	Liana	01-06	3.49	2.02	6.01	3.99
Toyota	Corolla	82-84	5.13	4.79	5.50	0.70
Toyota	Corolla	86-88	4.76	4.49	5.05	0.56
Toyota / Holden	Corolla / Nova	89-93	4.26	4.05	4.48	0.43
Toyota / Holden	Corolla / Nova	94-97	3.97	3.72	4.24	0.52
Toyota	Corolla	98-01	2.83	2.49	3.22	0.74
Toyota	Corolla	02-06	3.14	2.77	3.57	0.80
Toyota	Tercel	83-88	5.16	3.85	6.92	3.07
Toyota	MR2	87-90	6.68	4.91	9.07	4.16
Toyota	MR2	91-00	3.09	1.89	5.04	3.15
Toyota	Paseo / Cynos	91-99	3.90	3.17	4.81	1.64
Toyota	Corolla 4WD Wagon	92-96	3.63	2.35	5.59	3.24
Volvo	300 Series	84-88	4.20	2.46	7.17	4.71
Volvo	S40/V40	97-04	2.76	1.84	4.16	2.32
Volkswagen	Golf	82-94	6.52	4.35	9.78	5.43
Volkswagen	Golf	95-98	2.88	2.03	4.09	2.06
Volkswagen	Golf / Bora	99-04	2.01	1.46	2.77	1.31

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved %	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Volkswagen	New Beetle	00-06	1.00	0.31	3.18	2.87
Volkswagen	Golf / Jetta	04-06	0.55	0.16	1.82	1.66

**AGGRESSIVITY INJURY RISK
AGGRESSIVITY INJURY SEVERITY AND
RATINGS OF VEHICLE AGGRESSIVITY
(with 95% and 90% CONFIDENCE LIMITS),
TOWARDS OTHER VEHICLE DRIVERS
AND UNPROTECTED ROAD USERS**

AGGRESSIVITY INJURY RISK RATINGS

**New South Wales Data (1987-2006), South Australia Data (1995-2006),
Queensland and Western Australia Data (1991-2006)**

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE			14.84			
4 Wheel Drive - Compact			13.72	13.17	14.30	1.13
Daihatsu	Feroza / Rocky	89-97	18.20	15.18	21.68	6.50
Daihatsu	Rocky / Rugger	85-98	16.51	12.30	21.80	9.50
Daihatsu	Terios	97-05	15.42	11.78	19.91	8.13
Holden	Cruze	02-06	11.19	7.40	16.59	9.20
Kia	Sportage	98-03	16.11	12.48	20.53	8.05
Ford / Mazda	Escape / Tribute	01-06	14.69	11.24	18.96	7.72
Nissan	X-Trail	01-06	14.26	11.02	18.25	7.24
Lada	Niva	84-99	16.92	12.80	22.03	9.23
Honda	CR-V	97-01	14.62	12.52	17.02	4.50
Honda	CR-V	02-06	16.74	13.52	20.55	7.04
Honda	HR-V	99-02	15.26	11.06	20.69	9.63
Subaru	Forester	97-02	13.45	10.98	16.36	5.38
Subaru	Forester	02-06	12.82	9.39	17.28	7.89
Suzuki	Vitara / Escudo	88-98	15.54	13.95	17.28	3.34
Suzuki	Grand Vitara	99-05	11.48	7.86	16.48	8.62
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	14.51	13.04	16.12	3.08
Suzuki	Jimny	98-06	17.64	11.73	25.67	13.93
Toyota	RAV4	94-00	15.70	13.84	17.76	3.93
Toyota	RAV4	01-06	16.14	13.51	19.17	5.66
4 Wheel Drive - Large			18.46	17.98	18.95	0.97
Ford	Bronco	82-87	25.54	17.89	35.08	17.19
Ford	Explorer	00-01	17.02	12.36	22.97	10.62
Jeep	Grand Cherokee ZG	96-99	17.93	12.75	24.64	11.89
Jeep	Grand Cherokee WJ/WG	99-05	15.22	9.81	22.87	13.06
Mercedes Benz	M-Class W163	98-05	26.53	19.78	34.61	14.83
Nissan	Patrol / Safari	82-87	21.55	18.85	24.52	5.67
Nissan / Ford	Patrol / Maverick / Safari	88-97	19.46	18.30	20.68	2.38
Nissan	Patrol / Safari	98-04	19.83	17.90	21.90	3.99
Land Rover	Range Rover	82-94	21.54	17.98	25.60	7.62
Land Rover	Range Rover	95-02	14.15	8.35	22.95	14.60
Toyota	Landcruiser	82-89	21.11	19.88	22.39	2.51
Toyota	Landcruiser	90-97	21.02	20.00	22.07	2.06
Toyota	Landcruiser	98-06	18.79	17.22	20.47	3.25
4 Wheel Drive - Medium			17.03	16.34	17.75	1.41
Daewoo / Ssangong	Musso	98-02	11.83	7.23	18.75	11.52
Ford	Territory SX/SY	04-06	18.30	13.02	25.09	12.07

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden / Isuzu	Jackaroo / Bighorn	82-91	20.40	17.09	24.17	7.09
Holden / Isuzu	Jackaroo / Bighorn	92-97	17.87	14.59	21.71	7.13
Holden / Isuzu	Jackaroo / Bighorn	98-02	21.39	17.32	26.12	8.80
Holden	Frontera / Mu	95-03	15.46	10.80	21.63	10.83
Hyundai	Santa Fe	00-06	19.97	13.97	27.70	13.73
Mitsubishi	Pajero	82-90	19.16	16.90	21.63	4.73
Mitsubishi	Pajero	92-99	18.16	16.55	19.89	3.34
Mitsubishi	Pajero NM / NP / NS	00-06	17.48	14.06	21.51	7.45
Mitsubishi	Challenger	98-06	19.79	15.04	25.58	10.54
Jeep	Cherokee XJ	96-00	18.90	16.26	21.86	5.61
Jeep	Wrangler	96-04	23.44	17.54	30.58	13.04
Land Rover	Defender	92-06	17.96	12.96	24.37	11.41
Land Rover	Discovery	91-02	18.43	15.30	22.02	6.72
Nissan	Pathfinder / Terrano	88-94	22.40	18.12	27.36	9.24
Nissan	Pathfinder / Terrano / Regulus	95-05	16.38	12.92	20.55	7.64
Toyota	Landcruiser Prado	96-03	19.24	15.42	23.75	8.33
Toyota	Landcruiser Prado	03-06	20.06	15.95	24.91	8.96
Commercial - Ute			16.21	15.89	16.53	0.64
Ford / Nissan	Falcon Ute / XFN Ute	82-95	18.26	17.20	19.37	2.16
Ford	Falcon Ute	96-99	18.99	16.92	21.25	4.33
Ford	Falcon Ute AU	00-02	19.70	17.48	22.13	4.65
Ford	Falcon Ute BA/BF	03-06	18.00	15.03	21.40	6.37
Ford	Ford F-Series	82-92	22.64	19.52	26.10	6.58
Holden	Commodore Ute VG/VP	90-93	15.21	12.90	17.85	4.94
Holden / Isuzu	Rodeo / Pickup	82-85	17.09	13.42	21.51	8.10
Holden / Isuzu	Rodeo / Pickup	86-88	17.89	13.60	23.18	9.57
Holden / Isuzu	Rodeo / Pickup	89-95	18.21	16.99	19.50	2.51
Holden	Rodeo	96-98	18.04	16.22	20.01	3.79
Holden	Rodeo	99-02	19.22	17.20	21.43	4.23
Holden	WB Series	82-85	17.94	15.63	20.51	4.88
Holden	Commodore Ute VR/VS	94-00	17.17	16.00	18.41	2.40
Holden	Commodore VU Ute	00-02	15.34	13.03	17.98	4.94
Holden	Commodore VY/VZ Ute	02-06	15.01	12.92	17.37	4.45
Holden	Rodeo	03-06	17.86	15.47	20.54	5.08
Mitsubishi	Triton MK	96-06	17.05	14.31	20.19	5.88
Kia	Ceres	92-00	12.94	10.40	16.00	5.61
Ford / Mazda	Courier / B-Series / Bounty	98-02	15.87	13.63	18.40	4.78
Ford / Mazda	Courier / Bravo / Bounty	03-06	15.25	11.63	19.74	8.11
Nissan	720 Ute	82-85	17.81	15.21	20.75	5.54
Nissan	Navara	86-91	17.80	16.15	19.57	3.41
Nissan	Navara	92-96	19.63	17.33	22.16	4.83
Nissan	Navara	97-05	17.97	15.61	20.60	4.98
Subaru	Brumby	82-92	14.42	11.91	17.36	5.44
Suzuki	Mighty Boy	85-88	10.53	6.86	15.84	8.97
Toyota	4Runner/Hilux	82-85	18.54	16.95	20.24	3.29
Toyota	4Runner/Hilux	86-88	18.33	16.63	20.16	3.53
Toyota	4Runner/Hilux	89-97	18.24	17.43	19.08	1.65
Toyota	Hilux	98-02	17.74	16.36	19.22	2.86
Toyota	Hilux	03-04	19.60	16.54	23.07	6.53
Toyota	Hilux	05-06	17.99	13.52	23.53	10.00

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Commercial - Van			17.96	17.38	18.55	1.17
Daihatsu	Handivan	82-90	7.98	5.67	11.13	5.46
Ford	Falcon Panel Van	82-95	16.15	14.59	17.84	3.24
Ford	Falcon Panel Van	96-99	16.19	12.45	20.79	8.33
Ford	Transit	95-00	20.76	17.71	24.18	6.46
Ford	Transit	01-06	17.77	13.22	23.46	10.23
Holden	Shuttle / WFR Van	82-87	19.73	15.26	25.14	9.88
Kia	Pregio	02-06	19.85	14.95	25.87	10.91
Mercedes Benz	MB100 / MB140	99-04	21.00	15.62	27.61	11.98
Mercedes Benz	Vito / Viano	99-06	23.62	18.40	29.77	11.37
Mercedes Benz	Sprinter	98-04	20.55	15.70	26.43	10.73
Honda	Acty	83-86	12.02	7.45	18.80	11.35
Holden / Suzuki	Scurry / Carry	82-00	12.07	8.18	17.47	9.29
Toyota	Hiace/Liteace	82-86	20.26	18.43	22.21	3.78
Toyota	Hiace/Liteace	87-89	20.90	18.52	23.49	4.96
Toyota	Hiace/Liteace	90-95	22.85	21.27	24.51	3.25
Toyota	Hiace/Liteace	96-04	20.71	19.12	22.39	3.27
Volkswagen	Caravelle / Transporter	88-94	20.87	15.28	27.84	12.56
Volkswagen	Caravelle / Transporter	95-04	22.95	19.23	27.15	7.92
Large			14.49	14.32	14.67	0.35
BMW	7 Series E23	82-88	17.14	11.28	25.17	13.90
BMW	7 Series E32	89-94	18.64	12.16	27.48	15.32
Ford	Falcon XE/XF	82-88	16.65	16.14	17.17	1.03
Ford	Fairlane Z & LTD F	82-87	15.98	14.73	17.33	2.60
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	16.37	15.85	16.90	1.05
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	16.83	16.09	17.60	1.50
Ford	Fairlane N & LTD D	88-94	14.62	13.23	16.12	2.89
Ford	Fairlane N & LTD D	95-98	17.23	14.94	19.79	4.85
Ford	Fairlane & LTD AU	99-02	14.80	11.98	18.15	6.17
Ford	Falcon EF/EL	94-98	16.86	16.34	17.40	1.06
Ford	Falcon AU	98-02	17.06	16.34	17.81	1.47
Ford	Taurus	96-98	18.28	13.92	23.63	9.71
Ford	Falcon BA/BF	02-06	16.19	14.94	17.52	2.57
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	15.05	14.60	15.52	0.91
Holden	Statesman/Caprice WB	82-85	19.56	12.90	28.53	15.63
Holden	Stateman/Caprice VQ	90-93	14.65	11.21	18.93	7.72
Holden	Stateman/Caprice VR/VS	94-98	14.25	12.77	15.87	3.10
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	14.78	14.32	15.25	0.93
Holden	Commodore VT/VX	97-02	17.01	16.43	17.60	1.16
Holden	Statesman/Caprice WH	99-03	15.46	12.67	18.74	6.07
Holden	Commodore VY/VZ	02-06	16.17	15.06	17.36	2.30
Holden	Monaro	01-06	19.63	15.27	24.88	9.61
Holden	Statesman/Caprice WK/WL	03-06	17.35	11.99	24.44	12.46
Holden	Commodore VB-VL	82-88	15.98	15.48	16.51	1.03
Hyundai	Sonata	98-01	15.35	12.48	18.75	6.27
Hyundai	Sonata EF	02-05	15.71	10.20	23.41	13.21
Hyundai	Sonata	89-97	14.65	13.17	16.25	3.07

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Hyundai	Grandeaur / XG	99-00	20.03	14.32	27.28	12.96
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	15.39	14.78	16.03	1.26
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	16.12	15.37	16.90	1.53
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	16.20	15.59	16.84	1.26
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	15.20	12.11	18.91	6.80
Jaguar	XJ6	82-86	18.45	12.94	25.62	12.68
Jaguar	XJ6	87-94	20.89	16.08	26.69	10.61
Mazda	929 / Luce	82-90	16.38	14.60	18.32	3.72
Mazda	929 / Sentia / Efini MS-9	92-96	14.86	9.62	22.24	12.62
Mercedes Benz	S-Class W126	82-92	14.11	11.32	17.44	6.12
Mercedes Benz	S-Class C140	93-98	15.56	9.94	23.53	13.59
Nissan	Skyline	83-88	16.75	15.33	18.27	2.94
Nissan	300ZX / Fairlady Z	90-95	20.49	15.77	26.19	10.42
Nissan	Maxima	90-94	14.90	11.86	18.56	6.69
Nissan	Maxima / Cefiro	95-99	15.30	12.66	18.36	5.70
Nissan	Maxima	00-02	15.89	11.24	21.99	10.74
Honda	Legend	86-95	18.96	15.46	23.02	7.56
Toyota	Camry	98-02	15.96	15.16	16.79	1.63
Toyota	Crown / Cressida / Mark II	82-85	16.33	14.12	18.81	4.69
Toyota	Crown / Cressida / Mark II	86-88	13.22	10.34	16.75	6.41
Toyota	Cressida / Mark II	89-93	13.30	11.43	15.43	4.00
Toyota	Supra	82-90	24.55	19.30	30.67	11.37
Lexus	ES300 / Windom	92-01	18.72	14.55	23.75	9.20
Lexus	LS400 / Celsior	90-00	14.09	8.81	21.78	12.97
Toyota	Avalon	00-05	17.76	15.57	20.17	4.60
Toyota	Camry	02-06	14.70	13.12	16.43	3.31
Volvo	850/S70/V70/C70	92-04	17.27	14.96	19.85	4.89
Volvo	700/900 Series	84-92	16.07	13.91	18.50	4.59
Light			11.28	11.07	11.49	0.42
Daihatsu	Charade	82-86	12.03	10.05	14.32	4.27
Daihatsu	Charade	88-92	10.83	9.89	11.85	1.97
Daihatsu	Charade	93-00	12.56	11.52	13.69	2.17
Daihatsu	Pyzar	97-01	8.50	5.22	13.56	8.34
Daihatsu	Sirion / Storia	98-04	9.19	7.37	11.41	4.04
Daihatsu	Mira	90-96	10.87	8.32	14.08	5.76
Daewoo	Matiz	99-04	11.62	9.02	14.84	5.82
Daewoo	Kalos	03-04	10.84	6.65	17.19	10.53
Ford	Festiva WD/WH/WF	94-01	13.32	12.58	14.10	1.52
Ford	Ka	99-02	12.17	8.63	16.89	8.26
Holden	Barina XC	01-06	12.79	10.78	15.11	4.32
Holden	Barina SB	95-00	12.26	11.26	13.33	2.07
Hyundai	Getz	02-06	14.15	11.83	16.85	5.02
Mitsubishi	Mirage / Colt	82-88	13.44	12.59	14.33	1.74
Ford / Mazda	Festiva WA / 121	87-90	12.91	11.87	14.02	2.14
Mazda	121 / Autozam Review	94-96	10.22	8.96	11.64	2.68
Mazda	121 Metro / Demio	97-02	10.79	9.36	12.41	3.04
Mazda	2	02-06	12.78	8.76	18.29	9.54
Nissan	Micra	95-97	11.79	9.31	14.82	5.51

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Honda	Jazz	02-06	11.18	8.23	15.02	6.79
Honda	City	83-86	9.37	5.68	15.06	9.38
Peugoet	205	87-94	9.66	5.28	17.02	11.75
Peugeot	206	99-06	13.72	9.76	18.96	9.20
Subaru	Sherpa / Fiori / 700 / Rex	89-92	10.16	7.47	13.67	6.20
Suzuki	Swift	82-85	12.65	7.26	21.12	13.86
Holden / Suzuki	Barina / Swift / Cultus	86-88	12.18	10.82	13.70	2.88
Holden / Suzuki	Barina / Swift / Cultus	89-99	11.39	10.75	12.06	1.32
Suzuki	Hatch / Alto	82-84	12.29	9.38	15.94	6.55
Suzuki	Alto	85-00	13.63	8.61	20.91	12.30
Suzuki	Ignis	00-02	12.55	8.62	17.93	9.32
Toyota	Starlet	96-99	11.69	10.47	13.03	2.56
Toyota	Echo	99-05	9.86	8.73	11.11	2.39
Volkswagen	Polo	96-00	10.96	7.86	15.09	7.24
Medium			13.19	12.98	13.41	0.43
Alfa Romeo	156	99-06	9.22	5.84	14.25	8.40
Audi	A4	95-01	13.57	10.35	17.58	7.23
BMW	Z3 E36	97-03	15.75	9.65	24.66	15.01
BMW	3 Series E30	82-91	13.14	11.55	14.91	3.36
BMW	3 Series E36	92-98	12.31	11.05	13.69	2.63
BMW	3 Series E46	99-04	13.20	11.28	15.38	4.10
BMW	5 Series E28	82-88	16.69	13.36	20.65	7.28
BMW	5 Series E34	89-95	13.85	10.79	17.61	6.83
BMW	5 Series E39	96-03	14.67	11.47	18.58	7.11
Daewoo	Espero	95-97	15.58	12.60	19.12	6.52
Daewoo	Leganza	97-02	15.20	11.88	19.24	7.35
Ford	Cortina	82-82	15.82	14.19	17.59	3.40
Ford	Mondeo	95-01	14.63	12.73	16.75	4.01
Ford	Probe	94-98	13.53	8.64	20.56	11.92
Ford	Cougar	99-03	12.28	7.69	19.06	11.37
Holden	Calibra	94-97	16.61	12.29	22.07	9.79
Holden	Camira	82-89	16.01	15.16	16.90	1.74
Holden	Vectra	97-03	14.73	13.09	16.54	3.44
Hyundai	Elantra	00-06	13.98	11.95	16.29	4.34
Hyundai	Lantra	91-95	14.63	12.80	16.67	3.87
Hyundai	Lantra	96-00	14.55	13.22	15.99	2.77
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	14.54	13.73	15.38	1.66
Mitsubishi	Galant	95-96	13.85	11.65	16.39	4.74
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	14.32	13.31	15.39	2.08
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	13.76	12.58	15.04	2.46
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	12.51	11.39	13.72	2.33
Mazda	626	98-02	12.69	10.79	14.88	4.10
Mazda	RX7	82-85	12.68	8.88	17.79	8.92
Mazda	RX7	86-91	15.55	10.66	22.13	11.47
Mazda	Eunos 500	93-99	13.49	9.12	19.50	10.38
Mazda	6	02-06	11.64	7.85	16.92	9.07
Mercedes Benz	C-Class W201	87-93	13.25	10.34	16.81	6.47
Mercedes Benz	C-Class W202	95-00	9.76	7.81	12.12	4.31
Mercedes Benz	CLK C208	97-03	13.74	8.35	21.79	13.44

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mercedes Benz	E-Class W123	82-85	15.60	11.70	20.51	8.81
Mercedes Benz	E-Class W124	86-94	13.18	10.84	15.94	5.11
Mercedes Benz	E-Class W210	96-02	17.28	13.70	21.56	7.86
Mercedes Benz	C-Class W203	00-06	13.36	9.93	17.75	7.81
Nissan	Pintara	86-88	14.97	13.70	16.33	2.64
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	14.93	13.94	15.98	2.03
Nissan	Bluebird	82-86	13.98	13.05	14.95	1.90
Nissan	Bluebird	93-97	13.99	11.87	16.41	4.53
Nissan	200SX / Silvia	94-02	14.34	11.50	17.75	6.24
Honda	Accord Euro	03-06	10.85	7.57	15.32	7.74
Honda	Accord	03-06	21.99	15.17	30.76	15.59
Honda	Accord	82-85	12.97	10.93	15.33	4.40
Honda	Accord	86-90	13.31	11.48	15.39	3.91
Honda	Accord	91-93	14.29	12.07	16.84	4.77
Honda	Accord	94-98	15.79	14.11	17.62	3.51
Honda	Accord	99-02	15.18	11.61	19.60	7.99
Honda	Prelude	82-82	10.68	5.64	19.31	13.67
Honda	Prelude	83-91	13.54	11.93	15.32	3.39
Honda	Prelude	92-96	13.44	11.13	16.13	5.00
Honda	Prelude	97-02	11.85	8.69	15.96	7.27
Peugeot	405	89-97	11.34	8.19	15.50	7.31
Peugeot	505	82-93	13.23	9.76	17.70	7.95
Peugeot	406	96-04	6.87	3.44	13.25	9.81
Renault	Feugo	82-87	12.56	7.65	19.95	12.30
Saab	900 Series	82-92	12.83	10.11	16.16	6.05
Saab	900/9-3	94-02	14.47	11.95	17.43	5.48
Saab	9000	86-97	14.18	11.48	17.39	5.92
Saab	9-5	98-05	11.19	6.66	18.22	11.56
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	13.26	12.06	14.55	2.49
Subaru	Liberty / Legacy	89-93	14.75	13.45	16.16	2.71
Subaru	Liberty / Legacy / Outback	94-98	13.37	11.59	15.37	3.79
Subaru	Liberty / Legacy / Outback	99-03	13.40	11.52	15.54	4.02
Subaru	Liberty / Legacy / Outback	03-06	7.58	4.64	12.14	7.50
Toyota	Corona	82-88	14.27	13.60	14.98	1.38
Toyota	Camry	83-86	15.80	14.20	17.55	3.35
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	16.24	15.65	16.85	1.19
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	15.50	14.90	16.12	1.22
Toyota	Celica	81-85	17.56	15.61	19.69	4.08
Toyota	Celica	86-89	16.58	14.54	18.84	4.30
Toyota	Celica	90-93	16.79	14.79	18.99	4.20
Toyota	Celica	94-99	16.49	13.98	19.35	5.37
Toyota	Celica	00-05	14.43	10.57	19.40	8.83
Lexus	IS200 / IS300	99-04	14.21	10.41	19.09	8.67
Volvo	200 Series	82-93	14.32	12.59	16.24	3.65
Volkswagen	Passat	98-06	13.31	8.99	19.27	10.29
People Mover			15.91	15.34	16.50	1.16
Chrysler	Voyager	97-06	21.33	16.78	26.71	9.92
Holden	Zafira TT	01-05	11.77	7.07	18.95	11.87
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	12.33	8.34	17.87	9.54
Mitsubishi	Nimbus / Chariot	92-98	14.24	11.36	17.70	6.35

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mitsubishi	Nimbus	99-03	9.01	5.44	14.55	9.11
Mitsubishi	Starwagon / L300	83-86	20.61	18.39	23.02	4.63
Mitsubishi	Starwagon / Delica Starwagon	87-93	17.96	16.59	19.41	2.82
Mitsubishi	Starwagon / Delica Spacegear	95-98	21.04	18.60	23.70	5.09
Mitsubishi	Starwagon / Delica Spacegear	98-03	17.70	14.82	21.00	6.18
Kia	Carnival	99-06	22.38	18.21	27.18	8.97
Mazda	MPV	94-99	20.66	15.43	27.08	11.64
Nissan	Prairie	84-86	13.02	8.73	18.96	10.23
Honda	Odyssey	95-00	16.37	12.48	21.19	8.71
Toyota	Tarago	83-89	16.33	14.83	17.94	3.11
Toyota	Tarago / Previa / Estima	91-99	16.44	14.71	18.33	3.62
Toyota	Tarago / Previa / Estima	00-06	13.66	10.38	17.78	7.40
Small			11.75	11.58	11.93	0.35
Alfa Romeo	33	83-92	7.27	4.68	11.13	6.45
Alfa Romeo	75	86-92	18.07	11.69	26.88	15.20
Audi	A3/S3	97-04	14.79	9.84	21.63	11.79
Audi	A4	01-06	12.07	8.46	16.92	8.45
Chrysler	Neon	96-99	12.66	9.28	17.05	7.76
Daihatsu	Applause	89-99	13.36	11.84	15.04	3.20
Daewoo	1.5i	94-95	17.98	12.51	25.14	12.63
Daewoo	Cielo	95-97	12.48	11.21	13.87	2.66
Daewoo	Nubira	97-03	12.84	11.28	14.57	3.30
Daewoo	Lanos	97-03	15.16	13.81	16.62	2.80
Ford	Laser	91-94	13.31	12.57	14.09	1.52
Ford	Laser	95-97	11.74	10.54	13.06	2.51
Ford	Escort	82-82	15.25	13.29	17.43	4.14
Ford	Capri	89-94	15.42	13.23	17.90	4.66
Ford	Focus LR	02-05	13.68	10.79	17.19	6.40
Holden	Gemini	82-84	12.56	11.39	13.84	2.45
Holden	Gemini RB	86-87	11.98	9.65	14.78	5.13
Holden	Astra TR	96-98	12.22	9.95	14.91	4.95
Holden	Astra TS	98-06	12.30	11.31	13.36	2.05
Holden	Astra AH	04-06	13.24	8.85	19.35	10.50
Hyundai	Excel	86-90	15.52	13.91	17.28	3.37
Hyundai	Excel	90-94	13.05	12.21	13.95	1.74
Hyundai	Excel / Accent	95-00	12.87	12.31	13.45	1.13
Hyundai	S Coupe	90-96	11.92	9.80	14.43	4.63
Hyundai	Coupe	96-00	15.45	12.43	19.06	6.63
Hyundai	Accent	00-06	14.60	13.22	16.10	2.88
Mitsubishi	Lancer / Mirage CA	89-90	12.26	11.10	13.52	2.42
Mitsubishi	Lancer / Mirage CB	91-92	14.76	12.36	17.53	5.17
Mitsubishi	Lancer / Mirage CC	93-95	11.34	10.40	12.36	1.97
Mitsubishi	Lancer / Mirage CE	96-03	12.71	12.06	13.39	1.34
Mitsubishi	Cordia	83-87	16.41	13.93	19.24	5.31
Mitsubishi	Lancer CH	03-06	12.74	10.08	15.96	5.88
Kia	Rio	00-05	13.31	11.27	15.65	4.37
Kia	Spectra	01-04	19.81	13.34	28.39	15.04
Ford / Mazda	Laser / 323 / Familia	82-88	13.43	12.95	13.93	0.99
Mazda	323 / Familia / Lantis	90-93	12.63	11.23	14.17	2.94
Mazda	323 / Familia / Lantis	95-98	12.02	10.82	13.34	2.52
Ford / Mazda	Laser / 323	99-03	12.50	11.36	13.73	2.37

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mazda	MX5 / Eunos Roadster	89-97	14.71	10.76	19.80	9.04
Mazda	MX5 / Eunos Roadster	98-05	7.43	4.42	12.24	7.82
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	10.84	7.57	15.27	7.70
Mazda	3	03-06	13.74	11.26	16.66	5.41
Mercedes Benz	A-Class W168	98-04	11.35	7.30	17.23	9.93
Holden / Nissan	Astra / Pulsar / Langley	84-86	12.85	11.92	13.85	1.93
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	13.64	12.86	14.47	1.61
Nissan	Pulsar / Vector / Sentra	92-95	13.68	12.60	14.84	2.24
Nissan	Pulsar / Vector / Sentra	96-99	13.42	12.46	14.43	1.97
Nissan	Stanza	82-83	16.32	12.00	21.82	9.83
Nissan	Gazelle / Silvia	84-86	13.07	8.82	18.93	10.11
Nissan	Exa	83-86	20.28	15.34	26.32	10.98
Nissan	Exa	87-91	15.50	9.93	23.38	13.45
Nissan	NX/NX-R	91-96	18.16	14.79	22.10	7.31
Nissan	Pulsar	00-05	11.95	10.82	13.19	2.37
Honda	Civic	82-83	10.22	7.25	14.22	6.97
Honda	Civic / Ballade / Shuttle	84-87	13.92	12.06	16.01	3.95
Honda	Civic / Shuttle	88-91	13.19	11.85	14.66	2.81
Honda	Civic	92-95	12.95	11.71	14.30	2.58
Honda	Civic	96-00	14.72	13.43	16.12	2.68
Honda	CRX	87-91	14.39	9.56	21.10	11.54
Honda	CRX	92-98	15.45	9.49	24.15	14.67
Honda	Civic	01-05	11.67	9.19	14.72	5.53
Honda	Integra	86-88	13.37	10.00	17.66	7.66
Honda	Integra	90-92	17.82	14.05	22.32	8.27
Honda	Integra	93-01	13.12	10.39	16.42	6.03
Honda	Concerto	89-93	9.94	6.95	14.04	7.09
Peugeot	306	94-01	11.69	9.29	14.60	5.31
Peugeot	307	01-06	14.30	9.51	20.93	11.41
Proton	Wira	95-96	13.13	10.91	15.72	4.81
Renault	19	91-96	13.26	8.81	19.45	10.64
Rover	Quintet	82-86	10.53	5.71	18.62	12.91
MG	MGF / MG TF	99-05	7.93	4.27	14.28	10.02
Subaru	Impreza	93-00	13.59	12.19	15.12	2.92
Subaru	Impreza	01-06	12.88	10.56	15.61	5.04
Suzuki	Baleno / Cultus Crescent	95-02	11.62	9.75	13.80	4.06
Suzuki	Liana	01-06	10.14	5.89	16.91	11.03
Toyota	Corolla	82-84	12.15	11.31	13.06	1.75
Toyota	Corolla	86-88	12.81	12.11	13.54	1.43
Toyota / Holden	Corolla / Nova	89-93	13.33	12.77	13.91	1.15
Toyota / Holden	Corolla / Nova	94-97	11.87	11.23	12.54	1.31
Toyota	Corolla	98-01	13.12	12.01	14.31	2.30
Toyota	Corolla	02-06	13.45	12.27	14.73	2.46
Toyota	Tercel	83-88	15.72	11.77	20.69	8.92
Toyota	MR2	87-90	12.74	7.35	21.17	13.82
Toyota	Paseo / Cynos	91-99	12.10	10.09	14.45	4.36
Toyota	Corolla 4WD Wagon	92-96	18.19	13.98	23.32	9.34
Volvo	S40/V40	97-04	14.34	11.14	18.27	7.14
Volkswagen	Golf	82-94	13.66	8.75	20.68	11.92
Volkswagen	Golf	95-98	13.20	10.62	16.29	5.67
Volkswagen	Golf / Bora	99-04	13.57	11.30	16.21	4.91
Volkswagen	New Beetle	00-06	10.58	6.19	17.51	11.32

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
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AGGRESSIVITY INJURY SEVERITY RATINGS

**New South Wales and Victoria Data (1987-2006), South Australia Data (1995-2006),
Queensland, Western Australia and New Zealand Data (1991-2006)**

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE			22.69			
4 Wheel Drive - Compact			21.73	20.46	23.06	2.59
Daihatsu	Feroza / Rocky	89-97	21.30	15.27	28.90	13.63
Daihatsu	Rocky / Rugger	85-98	30.21	20.90	41.50	20.60
Daihatsu	Terios	97-05	21.27	13.45	31.98	18.53
Holden	Cruze	02-06	22.32	10.96	40.15	29.20
Kia	Sportage	98-03	18.62	12.18	27.41	15.24
Ford / Mazda	Escape / Tribute	01-06	19.80	13.74	27.66	13.92
Nissan	X-Trail	01-06	24.61	17.81	32.96	15.16
Lada	Niva	84-99	25.94	17.17	37.18	20.01
Honda	CR-V	97-01	20.74	16.48	25.76	9.28
Honda	CR-V	02-06	25.62	18.89	33.73	14.84
Honda	HR-V	99-02	33.06	22.07	46.28	24.22
Subaru	Forester	97-02	15.35	11.14	20.77	9.63
Subaru	Forester	02-06	21.69	14.22	31.63	17.41
Suzuki	Vitara / Escudo	88-98	24.00	20.29	28.14	7.85
Suzuki	Grand Vitara	99-05	15.51	9.09	25.22	16.13
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	22.22	18.68	26.21	7.53
Suzuki	Jimny	98-06	22.81	11.10	41.16	30.06
Toyota	RAV4	94-00	26.00	22.03	30.41	8.38
Toyota	RAV4	01-06	24.66	19.22	31.04	11.82
4 Wheel Drive - Large			27.37	26.37	28.39	2.02
Ford	Bronco	82-87	27.23	16.22	41.97	25.75
Ford	Explorer	00-01	18.65	11.05	29.72	18.68
Jeep	Grand Cherokee ZG	96-99	20.53	12.77	31.31	18.54
Jeep	Grand Cherokee WJ/WG	99-05	31.53	21.64	43.44	21.80
Mercedes Benz	M-Class W163	98-05	13.84	7.85	23.25	15.40
Nissan	Patrol / Safari	82-87	28.74	23.88	34.14	10.26
Nissan / Ford	Patrol / Maverick / Safari	88-97	26.66	24.31	29.15	4.84
Nissan	Patrol / Safari	98-04	28.93	25.36	32.78	7.42
Land Rover	Range Rover	82-94	28.22	21.45	36.13	14.68
Land Rover	Range Rover	95-02	25.60	14.67	40.79	26.12
Toyota	Landcruiser	82-89	30.64	28.13	33.27	5.14
Toyota	Landcruiser	90-97	29.40	27.34	31.55	4.20
Toyota	Landcruiser	98-06	29.99	26.77	33.43	6.65
4 Wheel Drive - Medium			23.31	22.01	24.66	2.65
Daewoo / Ssangong	Musso	98-02	28.76	17.51	43.44	25.93
Ford	Territory SX/SY	04-06	27.79	16.85	42.23	25.38
Holden / Isuzu	Jackaroo / Bighorn	82-91	26.50	20.98	32.86	11.88

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Holden / Isuzu	Jackaroo / Bighorn	92-97	27.70	21.22	35.27	14.05
Holden / Isuzu	Jackaroo / Bighorn	98-02	27.26	19.52	36.67	17.15
Holden	Frontera / Mu	95-03	28.33	17.76	41.98	24.22
Hyundai	Santa Fe	00-06	22.03	12.71	35.41	22.70
Mitsubishi	Pajero	82-90	25.41	21.69	29.53	7.85
Mitsubishi	Pajero	92-99	24.19	20.83	27.89	7.05
Mitsubishi	Pajero NM / NP / NS	00-06	20.34	13.53	29.43	15.90
Mitsubishi	Challenger	98-06	15.03	8.81	24.47	15.65
Jeep	Cherokee XJ	96-00	21.79	16.90	27.63	10.74
Jeep	Wrangler	96-04	23.28	15.00	34.29	19.30
Land Rover	Defender	92-06	22.34	13.55	34.55	21.00
Land Rover	Discovery	91-02	19.41	14.87	24.93	10.06
Nissan	Pathfinder / Terrano	88-94	22.93	18.82	27.62	8.79
Nissan	Pathfinder / Terrano / Regulus	95-05	27.86	21.65	35.06	13.40
Toyota	Landcruiser Prado	96-03	37.48	28.21	47.76	19.55
Toyota	Landcruiser Prado	03-06	23.87	16.79	32.75	15.96
Commercial - Ute			24.64	23.95	25.34	1.39
Ford / Nissan	Falcon Ute / XFN Ute	82-95	23.57	21.40	25.88	4.48
Ford	Falcon Ute	96-99	22.41	18.16	27.34	9.18
Ford	Falcon Ute AU	00-02	24.95	20.84	29.56	8.72
Ford	Falcon Ute BA/BF	03-06	23.51	17.60	30.66	13.07
Ford	Ford F-Series	82-92	27.89	21.95	34.72	12.77
Holden	Commodore Ute VG/VP	90-93	19.99	15.38	25.56	10.18
Holden / Isuzu	Rodeo / Pickup	82-85	28.97	21.94	37.18	15.24
Holden / Isuzu	Rodeo / Pickup	86-88	22.14	13.52	34.10	20.58
Holden / Isuzu	Rodeo / Pickup	89-95	28.11	25.37	31.02	5.65
Holden	Rodeo	96-98	26.45	22.48	30.85	8.36
Holden	Rodeo	99-02	26.51	22.45	31.01	8.56
Holden	WB Series	82-85	26.30	21.39	31.88	10.49
Holden	Commodore Ute VR/VS	94-00	26.39	23.56	29.42	5.86
Holden	Commodore VU Ute	00-02	27.06	20.96	34.17	13.21
Holden	Commodore VY/VZ Ute	02-06	29.02	23.63	35.08	11.45
Holden	Rodeo	03-06	25.53	20.02	31.95	11.93
Mitsubishi	Triton MK	96-06	28.21	20.34	37.68	17.35
Kia	Ceres	92-00	25.11	17.39	34.82	17.43
Ford / Mazda	Courier / B-Series / Bounty	98-02	27.16	21.94	33.10	11.16
Ford / Mazda	Courier / Bravo / Bounty	03-06	19.55	12.36	29.54	17.18
Nissan	720 Ute	82-85	20.05	15.69	25.27	9.58
Nissan	Navara	86-91	26.09	23.05	29.39	6.35
Nissan	Navara	92-96	23.82	19.82	28.35	8.53
Nissan	Navara	97-05	25.36	20.72	30.63	9.90
Subaru	Brumby	82-92	27.29	21.48	33.99	12.51
Suzuki	Mighty Boy	85-88	21.69	11.92	36.18	24.25
Toyota	4Runner/Hilux	82-85	28.52	25.40	31.85	6.46
Toyota	4Runner/Hilux	86-88	27.34	24.35	30.54	6.19
Toyota	4Runner/Hilux	89-97	25.53	23.96	27.17	3.20
Toyota	Hilux	98-02	27.81	24.65	31.21	6.56
Toyota	Hilux	03-04	27.77	20.89	35.87	14.98
Toyota	Hilux	05-06	26.51	16.64	39.47	22.83
Commercial - Van			23.63	22.60	24.70	2.10

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Daihatsu	Handivan	82-90	29.45	20.79	39.88	19.09
Ford	Falcon Panel Van	82-95	23.56	20.12	27.39	7.27
Ford	Falcon Panel Van	96-99	23.96	15.72	34.72	18.99
Ford	Transit	95-00	18.49	13.55	24.72	11.17
Ford	Transit	01-06	20.01	13.21	29.13	15.92
Holden	Shuttle / WFR Van	82-87	19.67	12.72	29.17	16.45
Kia	Pregio	02-06	17.76	9.91	29.77	19.86
Mercedes Benz	MB100 / MB140	99-04	26.85	17.21	39.33	22.12
Mercedes Benz	Vito / Viano	99-06	27.41	18.47	38.64	20.17
Mercedes Benz	Sprinter	98-04	22.07	14.19	32.66	18.47
Honda	Acty	83-86	13.53	6.39	26.42	20.03
Holden / Suzuki	Scurry / Carry	82-00	22.40	14.48	32.97	18.49
Toyota	Hiace/Liteace	82-86	27.99	25.29	30.86	5.57
Toyota	Hiace/Liteace	87-89	26.17	23.00	29.62	6.62
Toyota	Hiace/Liteace	90-95	24.62	22.24	27.16	4.92
Toyota	Hiace/Liteace	96-04	23.91	21.05	27.03	5.97
Volkswagen	Caravelle / Transporter	88-94	23.62	12.12	40.96	28.84
Volkswagen	Caravelle / Transporter	95-04	28.28	20.67	37.36	16.69
Large			21.96	21.57	22.35	0.79
BMW	7 Series E23	82-88	13.58	5.67	29.10	23.43
BMW	7 Series E32	89-94	25.80	14.87	40.90	26.02
Ford	Falcon XE/XF	82-88	23.83	22.80	24.88	2.08
Ford	Fairlane Z & LTD F	82-87	23.55	20.78	26.57	5.79
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	23.87	22.75	25.02	2.26
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	23.51	21.93	25.17	3.24
Ford	Fairlane N & LTD D	88-94	22.54	19.54	25.86	6.32
Ford	Fairlane N & LTD D	95-98	23.03	18.56	28.21	9.64
Ford	Fairlane & LTD AU	99-02	21.08	14.99	28.82	13.83
Ford	Falcon EF/EL	94-98	23.10	21.98	24.26	2.28
Ford	Falcon AU	98-02	22.65	21.20	24.16	2.96
Ford	Taurus	96-98	22.60	14.75	33.01	18.26
Ford	Falcon BA/BF	02-06	22.91	20.25	25.80	5.54
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	22.94	21.90	24.02	2.11
Holden	Statesman/Caprice WB	82-85	39.14	18.94	63.90	44.95
Holden	Statesman/Caprice VQ	90-93	24.89	17.14	34.66	17.52
Holden	Statesman/Caprice VR/VS	94-98	24.65	20.92	28.81	7.89
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	23.24	22.11	24.41	2.30
Holden	Commodore VT/VX	97-02	23.21	21.94	24.52	2.58
Holden	Statesman/Caprice WH	99-03	22.86	16.87	30.21	13.34
Holden	Commodore VY/VZ	02-06	20.16	17.79	22.77	4.97
Holden	Monaro	01-06	25.77	17.13	36.83	19.70
Holden	Statesman/Caprice WK/WL	03-06	25.90	14.00	42.86	28.86
Holden	Commodore VB-VL	82-88	23.14	22.03	24.28	2.25
Hyundai	Sonata	98-01	18.35	11.81	27.40	15.59
Hyundai	Sonata EF	02-05	26.57	11.95	49.10	37.15
Hyundai	Sonata	89-97	24.84	21.10	29.01	7.91
Hyundai	Grandeaur / XG	99-00	23.80	12.36	40.90	28.53
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	23.26	21.87	24.72	2.85
Mitsubishi	Magna TE/TF/TH/TJ / Verada	96-03	21.30	19.59	23.11	3.52

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mitsubishi	KE/KF/KH/KJ / Diamante					
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	22.21	20.85	23.63	2.78
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	25.11	16.42	36.41	20.00
Jaguar	XJ6	82-86	28.69	18.92	40.95	22.03
Jaguar	XJ6	87-94	19.26	11.61	30.24	18.63
Mazda	929 / Luce	82-90	20.02	16.84	23.63	6.79
Mazda	929 / Sentia / Efini MS-9	92-96	43.72	28.06	60.75	32.70
Mercedes Benz	S-Class W126	82-92	18.23	12.25	26.25	14.01
Mercedes Benz	S-Class C140	93-98	23.48	12.69	39.30	26.61
Nissan	Skyline	83-88	22.27	19.70	25.07	5.37
Nissan	300ZX / Fairlady Z	90-95	26.82	18.84	36.66	17.82
Nissan	Maxima	90-94	22.37	17.47	28.17	10.70
Nissan	Maxima / Cefiro	95-99	19.32	14.83	24.77	9.94
Nissan	Maxima	00-02	22.09	14.95	31.38	16.42
Honda	Legend	86-95	25.13	18.94	32.54	13.60
Toyota	Camry	98-02	22.80	20.87	24.85	3.98
Toyota	Crown / Cressida / Mark II	82-85	25.29	21.05	30.06	9.02
Toyota	Crown / Cressida / Mark II	86-88	25.92	18.74	34.66	15.92
Toyota	Cressida / Mark II	89-93	18.25	14.15	23.22	9.07
Toyota	Supra	82-90	25.94	18.25	35.46	17.21
Lexus	ES300 / Windom	92-01	17.45	11.67	25.29	13.62
Lexus	LS400 / Celsior	90-00	33.99	19.71	51.92	32.21
Toyota	Avalon	00-05	23.86	19.25	29.18	9.93
Toyota	Camry	02-06	23.22	19.03	28.01	8.97
Volvo	850/S70/V70/C70	92-04	25.88	20.70	31.82	11.12
Volvo	700/900 Series	84-92	22.37	17.67	27.89	10.22
Light			20.28	19.69	20.90	1.21
Daihatsu	Charade	82-86	22.34	17.95	27.44	9.49
Daihatsu	Charade	88-92	20.17	17.28	23.40	6.12
Daihatsu	Charade	93-00	20.44	17.15	24.18	7.03
Daihatsu	Pyzar	97-01	21.56	11.22	37.43	26.21
Daihatsu	Sirion / Storia	98-04	19.07	12.59	27.82	15.23
Daihatsu	Mira	90-96	23.31	16.84	31.33	14.49
Daewoo	Matiz	99-04	22.70	14.39	33.90	19.50
Daewoo	Kalos	03-04	32.32	15.82	54.84	39.02
Ford	Festiva WD/WH/WF	94-01	19.52	17.53	21.69	4.16
Ford	Ka	99-02	26.17	15.70	40.30	24.60
Holden	Barina XC	01-06	19.98	15.02	26.07	11.06
Holden	Barina SB	95-00	22.88	19.74	26.36	6.61
Hyundai	Getz	02-06	31.81	24.39	40.28	15.89
Mitsubishi	Mirage / Colt	82-88	21.42	19.37	23.62	4.24
Ford / Mazda	Festiva WA / 121	87-90	19.64	16.90	22.70	5.80
Mazda	121 / Autozam Review	94-96	17.68	13.65	22.59	8.94
Mazda	121 Metro / Demio	97-02	18.04	13.86	23.14	9.28
Mazda	2	02-06	32.21	19.18	48.75	29.57
Nissan	Micra	95-97	20.86	13.39	31.00	17.61
Honda	Jazz	02-06	20.41	12.85	30.82	17.97
Honda	City	83-86	22.08	16.49	28.91	12.41
Peugoet	205	87-94	18.44	8.38	35.87	27.50
Peugeot	206	99-06	18.84	10.08	32.47	22.38

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Subaru	Sherpa / Fiori / 700 / Rex	89-92	20.73	14.55	28.64	14.09
Suzuki	Swift	82-85	23.44	11.23	42.56	31.32
Holden / Suzuki	Barina / Swift / Cultus	86-88	20.16	16.98	23.76	6.78
Holden / Suzuki	Barina / Swift / Cultus	89-99	21.20	19.20	23.34	4.14
Suzuki	Hatch / Alto	82-84	26.74	19.15	36.01	16.86
Suzuki	Alto	85-00	29.73	20.62	40.79	20.17
Suzuki	Ignis	00-02	20.93	11.93	34.09	22.17
Toyota	Starlet	96-99	21.47	17.79	25.67	7.88
Toyota	Echo	99-05	22.78	18.91	27.18	8.26
Volkswagen	Polo	96-00	19.62	11.68	31.06	19.38
Medium			21.10	20.63	21.59	0.96
Alfa Romeo	156	99-06	19.70	8.64	38.88	30.24
Audi	A4	95-01	19.73	12.94	28.90	15.97
BMW	Z3 E36	97-03	27.48	14.67	45.49	30.81
BMW	3 Series E30	82-91	21.45	18.04	25.30	7.26
BMW	3 Series E36	92-98	25.11	21.75	28.80	7.06
BMW	3 Series E46	99-04	22.09	17.32	27.73	10.41
BMW	5 Series E28	82-88	24.11	17.49	32.26	14.77
BMW	5 Series E34	89-95	27.67	21.26	35.14	13.88
BMW	5 Series E39	96-03	16.40	10.39	24.93	14.54
Daewoo	Espero	95-97	19.70	13.11	28.52	15.41
Daewoo	Leganza	97-02	25.86	17.46	36.53	19.07
Ford	Cortina	82-82	23.06	19.70	26.81	7.11
Ford	Mondeo	95-01	22.77	18.87	27.21	8.34
Ford	Probe	94-98	37.04	21.22	56.23	35.01
Ford	Cougar	99-03	25.22	14.39	40.36	25.98
Holden	Calibra	94-97	26.90	18.83	36.85	18.01
Holden	Camira	82-89	22.33	20.57	24.18	3.61
Holden	Vectra	97-03	22.11	18.60	26.07	7.46
Hyundai	Elantra	00-06	22.61	16.50	30.15	13.64
Hyundai	Lantra	91-95	19.99	15.08	26.01	10.93
Hyundai	Lantra	96-00	21.93	18.56	25.72	7.15
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	22.58	20.82	24.45	3.63
Mitsubishi	Galant	95-96	20.93	16.71	25.88	9.17
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	21.58	19.78	23.50	3.72
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	24.46	22.16	26.92	4.76
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	20.82	18.41	23.45	5.05
Mazda	626	98-02	27.44	22.47	33.03	10.57
Mazda	RX7	82-85	35.65	25.52	47.24	21.72
Mazda	RX7	86-91	19.90	12.18	30.78	18.59
Mazda	Eunos 500	93-99	19.37	10.12	33.91	23.79
Mazda	6	02-06	15.06	8.81	24.57	15.76
Mercedes Benz	C-Class W201	87-93	23.02	16.04	31.90	15.86
Mercedes Benz	C-Class W202	95-00	26.02	19.57	33.69	14.12
Mercedes Benz	CLK C208	97-03	21.33	11.00	37.30	26.29
Mercedes Benz	E-Class W123	82-85	18.51	10.89	29.70	18.81
Mercedes Benz	E-Class W124	86-94	26.21	20.00	33.53	13.53
Mercedes Benz	E-Class W210	96-02	23.66	16.57	32.59	16.02
Mercedes Benz	C-Class W203	00-06	9.29	3.79	21.04	17.25

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Nissan	Pintara	86-88	22.55	19.69	25.71	6.02
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	24.25	22.04	26.61	4.57
Nissan	Bluebird	82-86	22.01	20.12	24.02	3.91
Nissan	Bluebird	93-97	18.96	15.62	22.82	7.20
Nissan	200SX / Silvia	94-02	28.27	20.79	37.18	16.40
Honda	Accord Euro	03-06	15.24	9.16	24.27	15.11
Honda	Accord	03-06	27.55	14.56	45.91	31.35
Honda	Accord	82-85	17.82	14.68	21.45	6.76
Honda	Accord	86-90	23.89	20.59	27.54	6.95
Honda	Accord	91-93	17.47	13.46	22.37	8.90
Honda	Accord	94-98	20.32	16.87	24.27	7.40
Honda	Accord	99-02	20.54	13.64	29.71	16.07
Honda	Prelude	82-82	16.93	6.46	37.54	31.08
Honda	Prelude	83-91	22.52	19.72	25.58	5.86
Honda	Prelude	92-96	21.36	16.61	27.03	10.42
Honda	Prelude	97-02	26.83	18.37	37.39	19.02
Peugeot	405	89-97	21.93	15.98	29.33	13.35
Peugeot	505	82-93	27.54	18.85	38.34	19.50
Peugeot	406	96-04	31.52	18.99	47.47	28.48
Renault	Feugo	82-87	13.87	6.53	27.08	20.55
Saab	900 Series	82-92	15.81	10.39	23.32	12.93
Saab	900/9-3	94-02	18.40	13.03	25.34	12.30
Saab	9000	86-97	17.91	12.20	25.53	13.32
Saab	9-5	98-05	11.07	3.55	29.61	26.06
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	19.27	16.90	21.89	4.99
Subaru	Liberty / Legacy	89-93	20.93	18.46	23.63	5.16
Subaru	Liberty / Legacy / Outback	94-98	26.22	22.08	30.83	8.75
Subaru	Liberty / Legacy / Outback	99-03	19.05	14.84	24.13	9.29
Subaru	Liberty / Legacy / Outback	03-06	13.94	7.01	25.84	18.83
Toyota	Corona	82-88	23.51	21.85	25.26	3.41
Toyota	Camry	83-86	20.74	17.44	24.49	7.05
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	21.68	20.40	23.02	2.62
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	22.79	21.30	24.36	3.06
Toyota	Celica	81-85	22.16	18.51	26.31	7.79
Toyota	Celica	86-89	23.18	19.01	27.93	8.92
Toyota	Celica	90-93	24.58	20.36	29.37	9.01
Toyota	Celica	94-99	20.98	15.49	27.78	12.28
Toyota	Celica	00-05	27.88	17.21	41.82	24.60
Lexus	IS200 / IS300	99-04	20.39	9.71	37.89	28.18
Volvo	200 Series	82-93	23.81	19.69	28.48	8.78
Volkswagen	Passat	98-06	20.99	11.91	34.30	22.39
People Mover			22.88	21.71	24.09	2.38
Chrysler	Voyager	97-06	21.21	13.05	32.57	19.52
Holden	Zafira TT	01-05	25.62	13.33	43.54	30.22
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	20.32	14.45	27.79	13.34
Mitsubishi	Nimbus / Chariot	92-98	27.37	20.17	35.99	15.82
Mitsubishi	Nimbus	99-03	8.18	2.00	28.00	25.99
Mitsubishi	Starwagon / L300	83-86	24.56	21.25	28.19	6.94
Mitsubishi	Starwagon / Delica Starwagon	87-93	23.90	21.38	26.60	5.22
Mitsubishi	Starwagon / Delica Spacegear	95-98	22.78	18.19	28.12	9.93

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mitsubishi	Starwagon / Delica Spacegear	98-03	22.21	16.02	29.94	13.92
Kia	Carnival	99-06	24.51	16.78	34.34	17.56
Mazda	MPV	94-99	25.45	14.34	41.04	26.70
Nissan	Prairie	84-86	23.60	16.35	32.80	16.45
Honda	Odyssey	95-00	27.49	20.18	36.25	16.06
Toyota	Tarago	83-89	25.91	22.65	29.46	6.81
Toyota	Tarago / Previa / Estima	91-99	22.43	18.77	26.58	7.81
Toyota	Tarago / Previa / Estima	00-06	28.53	18.94	40.54	21.60
Small			20.64	20.20	21.09	0.89
Alfa Romeo	33	83-92	24.82	16.46	35.62	19.16
Alfa Romeo	75	86-92	24.90	11.53	45.76	34.23
Audi	A3/S3	97-04	28.43	15.88	45.53	29.64
Audi	A4	01-06	21.70	12.84	34.28	21.44
Chrysler	Neon	96-99	14.31	7.71	25.02	17.30
Daihatsu	Applause	89-99	19.25	15.34	23.87	8.53
Daewoo	1.5i	94-95	12.54	3.21	38.29	35.09
Daewoo	Cielo	95-97	20.47	16.84	24.64	7.80
Daewoo	Nubira	97-03	19.84	15.69	24.78	9.09
Daewoo	Lanos	97-03	22.03	18.79	25.66	6.87
Ford	Laser	91-94	21.73	19.88	23.70	3.82
Ford	Laser	95-97	23.63	20.12	27.53	7.40
Ford	Escort	82-82	18.07	13.24	24.18	10.94
Ford	Capri	89-94	17.05	12.72	22.49	9.77
Ford	Focus LR	02-05	20.75	14.40	28.95	14.56
Holden	Gemini	82-84	21.40	18.50	24.60	6.10
Holden	Gemini RB	86-87	20.67	14.59	28.45	13.86
Holden	Astra TR	96-98	22.03	16.19	29.23	13.04
Holden	Astra TS	98-06	22.02	19.29	25.02	5.73
Holden	Astra AH	04-06	22.62	11.70	39.23	27.53
Hyundai	Excel	86-90	20.99	17.49	24.99	7.50
Hyundai	Excel	90-94	21.83	19.35	24.52	5.17
Hyundai	Excel / Accent	95-00	21.89	20.25	23.61	3.36
Hyundai	S Coupe	90-96	19.90	13.97	27.54	13.56
Hyundai	Coupe	96-00	16.78	10.69	25.35	14.66
Hyundai	Accent	00-06	21.26	17.60	25.44	7.84
Mitsubishi	Lancer / Mirage CA	89-90	21.33	18.69	24.24	5.56
Mitsubishi	Lancer / Mirage CB	91-92	25.43	19.87	31.94	12.07
Mitsubishi	Lancer / Mirage CC	93-95	20.02	17.43	22.90	5.46
Mitsubishi	Lancer / Mirage CE	96-03	21.54	19.61	23.61	4.00
Mitsubishi	Cordia	83-87	26.57	22.64	30.92	8.27
Mitsubishi	Lancer CH	03-06	26.33	17.70	37.27	19.56
Kia	Rio	00-05	28.41	21.85	36.04	14.19
Kia	Spectra	01-04	23.09	10.05	44.63	34.58
Ford / Mazda	Laser / 323 / Familia	82-88	21.44	20.40	22.51	2.11
Mazda	323 / Familia / Lantis	90-93	18.56	16.15	21.24	5.09
Mazda	323 / Familia / Lantis	95-98	19.71	16.57	23.27	6.70
Ford / Mazda	Laser / 323	99-03	18.72	15.68	22.20	6.51
Mazda	MX5 / Eunos Roadster	89-97	18.32	10.80	29.35	18.55
Mazda	MX5 / Eunos Roadster	98-05	7.31	1.80	25.33	23.52
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	25.51	14.47	40.93	26.45

Make	Model of Car	Years of Manufacture	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mazda	3	03-06	23.62	16.50	32.61	16.10
Mercedes Benz	A-Class W168	98-04	17.87	8.06	35.07	27.01
Holden / Nissan	Astra / Pulsar / Langley	84-86	24.71	22.38	27.19	4.81
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	23.53	21.57	25.62	4.05
Nissan	Pulsar / Vector / Sentra	92-95	23.00	20.51	25.70	5.19
Nissan	Pulsar / Vector / Sentra	96-99	20.55	18.04	23.31	5.27
Nissan	Stanza	82-83	31.58	21.21	44.18	22.97
Nissan	Gazelle / Silvia	84-86	24.24	17.65	32.33	14.67
Nissan	Exa	83-86	25.84	17.50	36.41	18.92
Nissan	Exa	87-91	34.80	21.75	50.62	28.87
Nissan	NX/NX-R	91-96	23.43	16.88	31.57	14.69
Nissan	Pulsar	00-05	22.25	18.66	26.31	7.64
Honda	Civic	82-83	21.54	16.05	28.28	12.24
Honda	Civic / Ballade / Shuttle	84-87	21.95	18.50	25.83	7.34
Honda	Civic / Shuttle	88-91	20.65	17.81	23.81	6.00
Honda	Civic	92-95	23.53	20.51	26.85	6.34
Honda	Civic	96-00	16.52	13.70	19.79	6.09
Honda	CRX	87-91	21.41	15.70	28.51	12.81
Honda	CRX	92-98	30.28	17.09	47.77	30.67
Honda	Civic	01-05	22.33	15.91	30.41	14.50
Honda	Integra	86-88	16.48	11.68	22.74	11.06
Honda	Integra	90-92	24.72	18.53	32.15	13.62
Honda	Integra	93-01	19.65	14.36	26.29	11.93
Honda	Concerto	89-93	24.91	17.79	33.73	15.94
Peugeot	306	94-01	22.30	16.57	29.32	12.74
Peugeot	307	01-06	14.75	6.94	28.64	21.70
Proton	Wira	95-96	28.53	21.13	37.30	16.18
Renault	19	91-96	21.67	11.95	36.06	24.11
Rover	Quintet	82-86	8.24	2.53	23.70	21.16
MG	MGF / MG TF	99-05	19.63	7.53	42.30	34.77
Subaru	Impreza	93-00	27.08	23.50	30.98	7.48
Subaru	Impreza	01-06	17.48	11.87	25.00	13.14
Suzuki	Baleno / Cultus Crescent	95-02	13.79	9.16	20.24	11.08
Suzuki	Liana	01-06	33.05	17.18	54.00	36.82
Toyota	Corolla	82-84	20.83	18.91	22.88	3.97
Toyota	Corolla	86-88	22.66	20.92	24.50	3.58
Toyota / Holden	Corolla / Nova	89-93	22.32	20.90	23.81	2.91
Toyota / Holden	Corolla / Nova	94-97	21.16	19.33	23.11	3.78
Toyota	Corolla	98-01	22.47	19.28	26.03	6.75
Toyota	Corolla	02-06	21.18	18.07	24.68	6.61
Toyota	Tercel	83-88	16.26	9.28	26.94	17.66
Toyota	MR2	87-90	25.15	16.20	36.87	20.67
Toyota	Paseo / Cynos	91-99	26.29	19.81	33.98	14.17
Toyota	Corolla 4WD Wagon	92-96	28.65	18.13	42.14	24.01
Volvo	S40/V40	97-04	17.55	9.79	29.44	19.65
Volkswagen	Golf	82-94	31.88	21.16	44.93	23.77
Volkswagen	Golf	95-98	26.46	18.89	35.74	16.85
Volkswagen	Golf / Bora	99-04	17.98	13.02	24.31	11.30
Volkswagen	New Beetle	00-06	15.08	6.65	30.71	24.06

**AGGRESSIVITY RATINGS
(WITH 95% CONFIDENCE LIMITS)**

**New South Wales and Victoria Data (1987-2006), South Australia Data (1995-2006),
Queensland, Western Australia and New Zealand Data (1991-2006)**

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE			3.37			
4 Wheel Drive - Compact			2.98	2.77	3.21	0.43
Daihatsu	Feroza / Rocky	89-97	3.88	2.69	5.59	2.91
Daihatsu	Rocky / Rugger	85-98	4.99	3.19	7.81	4.62
Daihatsu	Terios	97-05	3.28	1.97	5.46	3.48
Holden	Cruze	02-06	2.50	1.15	5.41	4.26
Kia	Sportage	98-03	3.00	1.86	4.84	2.98
Ford / Mazda	Escape / Tribute	01-06	2.91	1.88	4.51	2.63
Nissan	X-Trail	01-06	3.51	2.35	5.23	2.88
Lada	Niva	84-99	4.39	2.73	7.05	4.32
Honda	CR-V	97-01	3.03	2.31	3.98	1.67
Honda	CR-V	02-06	4.29	3.00	6.14	3.14
Honda	HR-V	99-02	5.05	3.10	8.21	5.11
Subaru	Forester	97-02	2.06	1.42	2.99	1.56
Subaru	Forester	02-06	2.78	1.68	4.61	2.93
Suzuki	Vitara / Escudo	88-98	3.73	3.07	4.54	1.47
Suzuki	Grand Vitara	99-05	1.78	0.94	3.36	2.41
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	3.22	2.64	3.94	1.30
Suzuki	Jimny	98-06	4.03	1.86	8.72	6.86
Toyota	RAV4	94-00	4.08	3.33	5.01	1.68
Toyota	RAV4	01-06	3.98	2.96	5.36	2.40
4 Wheel Drive - Large			5.05	4.83	5.29	0.46
Ford	Bronco	82-87	6.96	3.87	12.51	8.64
Ford	Explorer	00-01	3.17	1.76	5.71	3.95
Jeep	Grand Cherokee ZG	96-99	3.68	2.10	6.44	4.34
Jeep	Grand Cherokee WJ/WG	99-05	4.80	2.77	8.33	5.56
Mercedes Benz	M-Class W163	98-05	3.67	1.99	6.79	4.80
Nissan	Patrol / Safari	82-87	6.19	4.96	7.73	2.77
Nissan / Ford	Patrol / Maverick / Safari	88-97	5.19	4.65	5.79	1.14
Nissan	Patrol / Safari	98-04	5.74	4.87	6.75	1.88
Land Rover	Range Rover	82-94	6.08	4.43	8.33	3.90
Land Rover	Range Rover	95-02	3.62	1.75	7.48	5.72
Toyota	Landcruiser	82-89	6.47	5.83	7.17	1.33
Toyota	Landcruiser	90-97	6.18	5.67	6.74	1.07
Toyota	Landcruiser	98-06	5.64	4.90	6.49	1.59
4 Wheel Drive - Medium			3.97	3.70	4.26	0.56
Daewoo / Ssangong	Musso	98-02	3.40	1.75	6.60	4.84

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Ford	Territory SX/SY	04-06	5.08	2.88	8.97	6.09
Holden / Isuzu	Jackaroo / Bighorn	82-91	5.41	4.07	7.18	3.11
Holden / Isuzu	Jackaroo / Bighorn	92-97	4.95	3.58	6.84	3.26
Holden / Isuzu	Jackaroo / Bighorn	98-02	5.83	4.00	8.51	4.51
Holden	Frontera / Mu	95-03	4.38	2.51	7.63	5.12
Hyundai	Santa Fe	00-06	4.40	2.37	8.18	5.82
Mitsubishi	Pajero	82-90	4.87	3.99	5.93	1.94
Mitsubishi	Pajero	92-99	4.39	3.70	5.22	1.52
Mitsubishi	Pajero NM / NP / NS	00-06	3.56	2.28	5.55	3.27
Mitsubishi	Challenger	98-06	2.98	1.67	5.31	3.64
Jeep	Cherokee XJ	96-00	4.12	3.09	5.49	2.40
Jeep	Wrangler	96-04	5.46	3.31	9.00	5.70
Land Rover	Defender	92-06	4.01	2.27	7.08	4.81
Land Rover	Discovery	91-02	3.58	2.61	4.91	2.30
Nissan	Pathfinder / Terrano	88-94	5.14	3.87	6.81	2.93
Nissan	Pathfinder / Terrano / Regulus	95-05	4.56	3.26	6.38	3.12
Toyota	Landcruiser Prado	96-03	7.21	5.13	10.14	5.02
Toyota	Landcruiser Prado	03-06	4.79	3.20	7.16	3.96
Commercial - Ute			3.99	3.86	4.13	0.27
Ford / Nissan	Falcon Ute / XFN Ute	82-95	4.30	3.85	4.81	0.97
Ford	Falcon Ute	96-99	4.26	3.37	5.38	2.01
Ford	Falcon Ute AU	00-02	4.91	3.98	6.07	2.09
Ford	Falcon Ute BA/BF	03-06	4.23	3.04	5.88	2.84
Ford	Ford F-Series	82-92	6.32	4.81	8.29	3.48
Holden	Commodore Ute VG/VP	90-93	3.04	2.25	4.11	1.86
Holden / Isuzu	Rodeo / Pickup	82-85	4.95	3.47	7.06	3.59
Holden / Isuzu	Rodeo / Pickup	86-88	3.96	2.32	6.78	4.46
Holden / Isuzu	Rodeo / Pickup	89-95	5.12	4.53	5.78	1.25
Holden	Rodeo	96-98	4.77	3.95	5.77	1.82
Holden	Rodeo	99-02	5.10	4.19	6.20	2.01
Holden	WB Series	82-85	4.72	3.71	6.01	2.30
Holden	Commodore Ute VR/VS	94-00	4.53	3.97	5.17	1.19
Holden	Commodore VU Ute	00-02	4.15	3.10	5.57	2.47
Holden	Commodore VY/VZ Ute	02-06	4.36	3.40	5.58	2.17
Holden	Rodeo	03-06	4.56	3.47	6.00	2.53
Mitsubishi	Triton MK	96-06	4.81	3.37	6.85	3.48
Kia	Ceres	92-00	3.25	2.16	4.90	2.74
Ford / Mazda	Courier / B-Series / Bounty	98-02	4.31	3.34	5.56	2.22
Ford / Mazda	Courier / Bravo / Bounty	03-06	2.98	1.79	4.98	3.19
Nissan	720 Ute	82-85	3.57	2.69	4.75	2.06
Nissan	Navara	86-91	4.64	3.98	5.42	1.44
Nissan	Navara	92-96	4.68	3.76	5.81	2.05
Nissan	Navara	97-05	4.56	3.59	5.79	2.21
Subaru	Brumby	82-92	3.94	2.92	5.30	2.37
Suzuki	Mighty Boy	85-88	2.29	1.13	4.60	3.47
Toyota	4Runner/Hilux	82-85	5.29	4.58	6.10	1.53
Toyota	4Runner/Hilux	86-88	5.01	4.32	5.81	1.50
Toyota	4Runner/Hilux	89-97	4.66	4.31	5.03	0.72
Toyota	Hilux	98-02	4.93	4.28	5.69	1.41

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Toyota	Hilux	03-04	5.44	3.96	7.48	3.52
Toyota	Hilux	05-06	4.77	2.85	7.99	5.14
Commercial - Van			4.24	4.02	4.48	0.47
Daihatsu	Handivan	82-90	2.35	1.47	3.76	2.29
Ford	Falcon Panel Van	82-95	3.80	3.16	4.57	1.41
Ford	Falcon Panel Van	96-99	3.88	2.42	6.23	3.81
Ford	Transit	95-00	3.84	2.73	5.39	2.66
Ford	Transit	01-06	3.56	2.18	5.81	3.63
Holden	Shuttle / WFR Van	82-87	3.88	2.39	6.32	3.93
Kia	Pregio	02-06	3.53	1.90	6.55	4.65
Mercedes Benz	MB100 / MB140	99-04	5.64	3.40	9.34	5.93
Mercedes Benz	Vito / Viano	99-06	6.47	4.16	10.08	5.92
Mercedes Benz	Sprinter	98-04	4.54	2.77	7.43	4.66
Honda	Acty	83-86	1.63	0.69	3.82	3.13
Holden / Suzuki	Scurry / Carry	82-00	2.70	1.54	4.74	3.20
Toyota	Hiace/Liteace	82-86	5.67	4.95	6.50	1.55
Toyota	Hiace/Liteace	87-89	5.47	4.60	6.51	1.91
Toyota	Hiace/Liteace	90-95	5.62	4.98	6.36	1.38
Toyota	Hiace/Liteace	96-04	4.95	4.27	5.74	1.47
Volkswagen	Caravelle / Transporter	88-94	4.93	2.48	9.80	7.31
Volkswagen	Caravelle / Transporter	95-04	6.49	4.60	9.15	4.55
Large			3.18	3.11	3.25	0.14
BMW	7 Series E23	82-88	2.33	0.93	5.86	4.93
BMW	7 Series E32	89-94	4.81	2.50	9.25	6.75
Ford	Falcon XE/XF	82-88	3.97	3.76	4.18	0.42
Ford	Fairlane Z & LTD F	82-87	3.76	3.25	4.36	1.11
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	3.91	3.69	4.14	0.45
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	3.96	3.65	4.30	0.65
Ford	Fairlane N & LTD D	88-94	3.30	2.78	3.91	1.14
Ford	Fairlane N & LTD D	95-98	3.97	3.08	5.11	2.02
Ford	Fairlane & LTD AU	99-02	3.12	2.12	4.60	2.48
Ford	Falcon EF/EL	94-98	3.90	3.67	4.13	0.46
Ford	Falcon AU	98-02	3.86	3.57	4.18	0.61
Ford	Taurus	96-98	4.13	2.55	6.70	4.16
Ford	Falcon BA/BF	02-06	3.71	3.21	4.29	1.08
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	3.45	3.27	3.65	0.38
Holden	Statesman/Caprice WB	82-85	7.66	3.67	15.95	12.27
Holden	Statesman/Caprice VQ	90-93	3.65	2.35	5.66	3.32
Holden	Statesman/Caprice VR/VS	94-98	3.51	2.90	4.26	1.37
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	3.44	3.24	3.64	0.40
Holden	Commodore VT/VX	97-02	3.95	3.70	4.21	0.52
Holden	Statesman/Caprice WH	99-03	3.54	2.49	5.03	2.54
Holden	Commodore VY/VZ	02-06	3.26	2.83	3.76	0.93
Holden	Monaro	01-06	5.06	3.21	7.98	4.77
Holden	Statesman/Caprice WK/WL	03-06	4.49	2.30	8.78	6.48
Holden	Commodore VB-VL	82-88	3.70	3.49	3.92	0.43
Hyundai	Sonata	98-01	2.82	1.76	4.51	2.74

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Hyundai	Sonata EF	02-05	4.17	1.82	9.59	7.78
Hyundai	Sonata	89-97	3.64	3.01	4.40	1.40
Hyundai	Grandeaur / XG	99-00	4.77	2.40	9.47	7.07
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	3.58	3.33	3.85	0.53
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	3.43	3.12	3.78	0.66
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	3.60	3.34	3.87	0.53
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	3.82	2.41	6.04	3.63
Jaguar	XJ6	82-86	5.29	3.15	8.88	5.73
Jaguar	XJ6	87-94	4.02	2.33	6.94	4.60
Mazda	929 / Luce	82-90	3.28	2.67	4.02	1.35
Mazda	929 / Sentia / Efini MS-9	92-96	6.50	3.67	11.51	7.85
Mercedes Benz	S-Class W126	82-92	2.57	1.66	3.99	2.33
Mercedes Benz	S-Class C140	93-98	3.65	1.78	7.48	5.70
Nissan	Skyline	83-88	3.73	3.21	4.33	1.12
Nissan	300ZX / Fairlady Z	90-95	5.50	3.61	8.37	4.75
Nissan	Maxima	90-94	3.33	2.40	4.63	2.23
Nissan	Maxima / Cefiro	95-99	2.96	2.15	4.06	1.91
Nissan	Maxima	00-02	3.51	2.13	5.80	3.67
Honda	Legend	86-95	4.76	3.40	6.67	3.27
Toyota	Camry	98-02	3.64	3.29	4.03	0.74
Toyota	Crown / Cressida / Mark II	82-85	4.13	3.28	5.19	1.91
Toyota	Crown / Cressida / Mark II	86-88	3.43	2.31	5.07	2.75
Toyota	Cressida / Mark II	89-93	2.43	1.82	3.24	1.43
Toyota	Supra	82-90	6.37	4.24	9.56	5.32
Lexus	ES300 / Windom	92-01	3.27	2.06	5.17	3.11
Lexus	LS400 / Celsior	90-00	4.79	2.46	9.34	6.88
Toyota	Avalon	00-05	4.24	3.32	5.42	2.10
Toyota	Camry	02-06	3.41	2.73	4.27	1.54
Volvo	850/S70/V70/C70	92-04	4.47	3.45	5.78	2.33
Volvo	700/900 Series	84-92	3.59	2.75	4.71	1.96
Light			2.29	2.21	2.37	0.16
Daihatsu	Charade	82-86	2.69	2.04	3.54	1.51
Daihatsu	Charade	88-92	2.18	1.83	2.61	0.78
Daihatsu	Charade	93-00	2.57	2.12	3.11	0.99
Daihatsu	Pyzar	97-01	1.83	0.84	3.98	3.14
Daihatsu	Sirion / Storia	98-04	1.75	1.11	2.76	1.65
Daihatsu	Mira	90-96	2.53	1.69	3.81	2.12
Daewoo	Matiz	99-04	2.64	1.60	4.34	2.74
Daewoo	Kalos	03-04	3.51	1.59	7.73	6.14
Ford	Festiva WD/WH/WF	94-01	2.60	2.31	2.94	0.63
Ford	Ka	99-02	3.18	1.78	5.70	3.92
Holden	Barina XC	01-06	2.56	1.85	3.53	1.68
Holden	Barina SB	95-00	2.80	2.37	3.31	0.94
Hyundai	Getz	02-06	4.50	3.31	6.12	2.81
Mitsubishi	Mirage / Colt	82-88	2.88	2.56	3.24	0.68
Ford / Mazda	Festiva WA / 121	87-90	2.53	2.14	3.00	0.86
Mazda	121 / Autozam Review	94-96	1.81	1.36	2.40	1.04

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mazda	121 Metro / Demio	97-02	1.95	1.45	2.61	1.16
Mazda	2	02-06	4.12	2.26	7.49	5.23
Nissan	Micra	95-97	2.46	1.52	3.98	2.46
Honda	Jazz	02-06	2.28	1.34	3.89	2.55
Honda	City	83-86	2.07	1.18	3.64	2.46
Peugoet	205	87-94	1.78	0.69	4.58	3.89
Peugeot	206	99-06	2.59	1.31	5.09	3.78
Subaru	Sherpa / Fiori / 700 / Rex	89-92	2.11	1.34	3.32	1.98
Suzuki	Swift	82-85	2.96	1.25	7.03	5.78
Holden / Suzuki	Barina / Swift / Cultus	86-88	2.46	2.00	3.02	1.02
Holden / Suzuki	Barina / Swift / Cultus	89-99	2.41	2.15	2.70	0.55
Suzuki	Hatch / Alto	82-84	3.29	2.17	4.97	2.79
Suzuki	Alto	85-00	4.05	2.31	7.11	4.80
Suzuki	Ignis	00-02	2.63	1.38	5.01	3.63
Toyota	Starlet	96-99	2.51	2.03	3.11	1.08
Toyota	Echo	99-05	2.25	1.81	2.79	0.99
Volkswagen	Polo	96-00	2.15	1.19	3.89	2.69
Medium			2.78	2.71	2.86	0.16
Alfa Romeo	156	99-06	1.82	0.75	4.41	3.66
Audi	A4	95-01	2.68	1.65	4.34	2.69
BMW	Z3 E36	97-03	4.33	2.06	9.09	7.03
BMW	3 Series E30	82-91	2.82	2.28	3.48	1.20
BMW	3 Series E36	92-98	3.09	2.59	3.69	1.10
BMW	3 Series E46	99-04	2.91	2.20	3.87	1.67
BMW	5 Series E28	82-88	4.02	2.76	5.86	3.10
BMW	5 Series E34	89-95	3.83	2.70	5.45	2.75
BMW	5 Series E39	96-03	2.41	1.46	3.97	2.52
Daewoo	Espero	95-97	3.07	1.97	4.78	2.81
Daewoo	Leganza	97-02	3.93	2.53	6.12	3.59
Ford	Cortina	82-82	3.65	3.02	4.40	1.38
Ford	Mondeo	95-01	3.33	2.65	4.19	1.54
Ford	Probe	94-98	5.01	2.60	9.66	7.06
Ford	Cougar	99-03	3.10	1.55	6.19	4.64
Holden	Calibra	94-97	4.47	2.86	6.99	4.13
Holden	Camira	82-89	3.57	3.24	3.94	0.70
Holden	Vectra	97-03	3.26	2.65	4.00	1.35
Hyundai	Elantra	00-06	3.16	2.25	4.44	2.19
Hyundai	Lantra	91-95	2.92	2.16	3.96	1.80
Hyundai	Lantra	96-00	3.19	2.64	3.86	1.21
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	3.28	2.97	3.62	0.65
Mitsubishi	Galant	95-96	2.90	2.20	3.83	1.63
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	3.09	2.76	3.46	0.70
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	3.37	2.95	3.84	0.89
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	2.60	2.23	3.03	0.80
Mazda	626	98-02	3.48	2.71	4.48	1.77
Mazda	RX7	82-85	4.52	2.84	7.20	4.37
Mazda	RX7	86-91	3.09	1.71	5.60	3.89
Mazda	Eunos 500	93-99	2.61	1.27	5.37	4.10

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mazda	6	02-06	1.75	0.92	3.34	2.42
Mercedes Benz	C-Class W201	87-93	3.05	2.00	4.65	2.65
Mercedes Benz	C-Class W202	95-00	2.54	1.79	3.60	1.81
Mercedes Benz	CLK C208	97-03	2.93	1.34	6.42	5.08
Mercedes Benz	E-Class W123	82-85	2.89	1.62	5.15	3.53
Mercedes Benz	E-Class W124	86-94	3.46	2.50	4.77	2.27
Mercedes Benz	E-Class W210	96-02	4.09	2.72	6.15	3.43
Mercedes Benz	C-Class W203	00-06	1.24	0.50	3.10	2.60
Nissan	Pintara	86-88	3.38	2.88	3.96	1.08
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	3.62	3.22	4.07	0.84
Nissan	Bluebird	82-86	3.08	2.75	3.44	0.69
Nissan	Bluebird	93-97	2.65	2.07	3.40	1.34
Nissan	200SX / Silvia	94-02	4.06	2.82	5.83	3.01
Honda	Accord Euro	03-06	1.65	0.90	3.02	2.12
Honda	Accord	03-06	6.06	3.07	11.97	8.91
Honda	Accord	82-85	2.31	1.79	2.98	1.19
Honda	Accord	86-90	3.18	2.59	3.91	1.32
Honda	Accord	91-93	2.50	1.84	3.38	1.54
Honda	Accord	94-98	3.21	2.59	3.97	1.38
Honda	Accord	99-02	3.12	1.95	4.99	3.04
Honda	Prelude	82-82	1.81	0.61	5.39	4.78
Honda	Prelude	83-91	3.05	2.55	3.65	1.11
Honda	Prelude	92-96	2.87	2.11	3.90	1.79
Honda	Prelude	97-02	3.18	1.99	5.08	3.09
Peugeot	405	89-97	2.49	1.60	3.87	2.27
Peugeot	505	82-93	3.64	2.29	5.80	3.51
Peugeot	406	96-04	2.17	0.95	4.92	3.97
Renault	Feugo	82-87	1.74	0.73	4.14	3.41
Saab	900 Series	82-92	2.03	1.27	3.24	1.97
Saab	900/9-3	94-02	2.66	1.82	3.91	2.09
Saab	9000	86-97	2.54	1.66	3.88	2.22
Saab	9-5	98-05	1.24	0.38	4.09	3.72
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	2.56	2.18	3.00	0.82
Subaru	Liberty / Legacy	89-93	3.09	2.65	3.60	0.95
Subaru	Liberty / Legacy / Outback	94-98	3.50	2.82	4.36	1.55
Subaru	Liberty / Legacy / Outback	99-03	2.55	1.92	3.40	1.48
Subaru	Liberty / Legacy / Outback	03-06	1.06	0.47	2.39	1.92
Toyota	Corona	82-88	3.36	3.08	3.66	0.59
Toyota	Camry	83-86	3.28	2.68	4.00	1.32
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	3.52	3.28	3.78	0.50
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	3.53	3.27	3.82	0.55
Toyota	Celica	81-85	3.89	3.15	4.80	1.65
Toyota	Celica	86-89	3.84	3.05	4.85	1.80
Toyota	Celica	90-93	4.13	3.31	5.15	1.85
Toyota	Celica	94-99	3.46	2.48	4.84	2.36
Toyota	Celica	00-05	4.02	2.34	6.91	4.57
Lexus	IS200 / IS300	99-04	2.90	1.36	6.16	4.80
Volvo	200 Series	82-93	3.41	2.73	4.27	1.54
Volkswagen	Passat	98-06	2.79	1.45	5.39	3.94

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
People Mover			3.64	3.42	3.88	0.46
Chrysler	Voyager	97-06	4.52	2.70	7.58	4.88
Holden	Zafira TT	01-05	3.01	1.38	6.56	5.18
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	2.51	1.51	4.15	2.63
Mitsubishi	Nimbus / Chariot	92-98	3.90	2.70	5.62	2.91
Mitsubishi	Nimbus	99-03	0.74	0.17	3.11	2.94
Mitsubishi	Starwagon / L300	83-86	5.06	4.22	6.06	1.84
Mitsubishi	Starwagon / Delica Starwagon	87-93	4.29	3.75	4.91	1.16
Mitsubishi	Starwagon / Delica Spacegear	95-98	4.79	3.73	6.15	2.42
Mitsubishi	Starwagon / Delica Spacegear	98-03	3.93	2.75	5.63	2.88
Kia	Carnival	99-06	5.49	3.63	8.28	4.65
Mazda	MPV	94-99	5.26	2.88	9.59	6.71
Nissan	Prairie	84-86	3.07	1.82	5.18	3.36
Honda	Odyssey	95-00	4.50	3.03	6.69	3.66
Toyota	Tarago	83-89	4.23	3.60	4.98	1.38
Toyota	Tarago / Previa / Estima	91-99	3.69	3.00	4.53	1.53
Toyota	Tarago / Previa / Estima	00-06	3.90	2.44	6.22	3.78
Small			2.43	2.36	2.49	0.13
Alfa Romeo	33	83-92	1.80	1.01	3.23	2.22
Alfa Romeo	75	86-92	4.50	1.99	10.18	8.20
Audi	A3/S3	97-04	4.20	2.17	8.16	5.99
Audi	A4	01-06	2.62	1.43	4.79	3.36
Chrysler	Neon	96-99	1.81	0.93	3.53	2.60
Daihatsu	Applause	89-99	2.57	2.00	3.31	1.31
Daewoo	1.5i	94-95	2.25	0.60	8.51	7.91
Daewoo	Cielo	95-97	2.55	2.05	3.18	1.12
Daewoo	Nubira	97-03	2.55	1.96	3.31	1.35
Daewoo	Lanos	97-03	3.34	2.79	4.00	1.22
Ford	Laser	91-94	2.89	2.60	3.21	0.61
Ford	Laser	95-97	2.77	2.29	3.35	1.06
Ford	Escort	82-82	2.76	1.98	3.84	1.86
Ford	Capri	89-94	2.63	1.90	3.63	1.73
Ford	Focus LR	02-05	2.84	1.86	4.32	2.46
Holden	Gemini	82-84	2.69	2.26	3.19	0.93
Holden	Gemini RB	86-87	2.48	1.66	3.68	2.02
Holden	Astra TR	96-98	2.69	1.88	3.85	1.97
Holden	Astra TS	98-06	2.71	2.32	3.16	0.84
Holden	Astra AH	04-06	3.00	1.45	6.20	4.75
Hyundai	Excel	86-90	3.26	2.64	4.02	1.37
Hyundai	Excel	90-94	2.85	2.49	3.26	0.78
Hyundai	Excel / Accent	95-00	2.82	2.58	3.08	0.50
Hyundai	S Coupe	90-96	2.37	1.60	3.51	1.91
Hyundai	Coupe	96-00	2.59	1.60	4.21	2.61
Hyundai	Accent	00-06	3.10	2.52	3.83	1.31
Mitsubishi	Lancer / Mirage CA	89-90	2.61	2.22	3.08	0.86
Mitsubishi	Lancer / Mirage CB	91-92	3.75	2.79	5.04	2.25
Mitsubishi	Lancer / Mirage CC	93-95	2.27	1.93	2.67	0.74
Mitsubishi	Lancer / Mirage CE	96-03	2.74	2.46	3.05	0.59

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Mitsubishi	Cordia	83-87	4.36	3.48	5.46	1.98
Mitsubishi	Lancer CH	03-06	3.35	2.16	5.20	3.04
Kia	Rio	00-05	3.78	2.80	5.10	2.30
Kia	Spectra	01-04	4.57	1.96	10.69	8.73
Ford / Mazda	Laser / 323 / Familia	82-88	2.88	2.71	3.06	0.35
Mazda	323 / Familia / Lantis	90-93	2.34	1.96	2.81	0.85
Mazda	323 / Familia / Lantis	95-98	2.37	1.94	2.89	0.95
Ford / Mazda	Laser / 323	99-03	2.34	1.92	2.85	0.93
Mazda	MX5 / Eunos Roadster	89-97	2.70	1.50	4.86	3.36
Mazda	MX5 / Eunos Roadster	98-05	0.54	0.13	2.30	2.18
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	2.76	1.47	5.20	3.73
Mazda	3	03-06	3.24	2.19	4.81	2.63
Mercedes Benz	A-Class W168	98-04	2.03	0.86	4.80	3.95
Holden / Nissan	Astra / Pulsar / Langley	84-86	3.18	2.81	3.59	0.78
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	3.21	2.89	3.56	0.67
Nissan	Pulsar / Vector / Sentra	92-95	3.15	2.74	3.62	0.88
Nissan	Pulsar / Vector / Sentra	96-99	2.76	2.38	3.20	0.82
Nissan	Stanza	82-83	5.16	3.20	8.29	5.09
Nissan	Gazelle / Silvia	84-86	3.17	1.94	5.16	3.22
Nissan	Exa	83-86	5.24	3.32	8.28	4.96
Nissan	Exa	87-91	5.39	2.95	9.88	6.93
Nissan	NX/NX-R	91-96	4.26	2.93	6.18	3.25
Nissan	Pulsar	00-05	2.66	2.18	3.24	1.06
Honda	Civic	82-83	2.20	1.42	3.42	2.01
Honda	Civic / Ballade / Shuttle	84-87	3.05	2.45	3.80	1.35
Honda	Civic / Shuttle	88-91	2.72	2.27	3.26	0.99
Honda	Civic	92-95	3.05	2.58	3.60	1.03
Honda	Civic	96-00	2.43	1.98	2.99	1.01
Honda	CRX	87-91	3.08	1.87	5.07	3.19
Honda	CRX	92-98	4.68	2.32	9.42	7.10
Honda	Civic	01-05	2.61	1.74	3.89	2.15
Honda	Integra	86-88	2.20	1.42	3.42	2.00
Honda	Integra	90-92	4.40	3.07	6.31	3.24
Honda	Integra	93-01	2.58	1.76	3.77	2.01
Honda	Concerto	89-93	2.48	1.54	3.99	2.45
Peugeot	306	94-01	2.61	1.81	3.75	1.94
Peugeot	307	01-06	2.11	0.93	4.78	3.86
Proton	Wira	95-96	3.75	2.67	5.26	2.59
Renault	19	91-96	2.87	1.45	5.70	4.25
Rover	Quintet	82-86	0.87	0.24	3.14	2.90
MG	MGF / MG TF	99-05	1.56	0.53	4.55	4.02
Subaru	Impreza	93-00	3.68	3.09	4.38	1.30
Subaru	Impreza	01-06	2.25	1.48	3.43	1.96
Suzuki	Baleno / Cultus Crescent	95-02	1.60	1.04	2.47	1.44
Suzuki	Liana	01-06	3.35	1.53	7.35	5.83
Toyota	Corolla	82-84	2.53	2.25	2.85	0.61
Toyota	Corolla	86-88	2.90	2.64	3.20	0.56
Toyota / Holden	Corolla / Nova	89-93	2.97	2.75	3.22	0.46
Toyota / Holden	Corolla / Nova	94-97	2.51	2.26	2.79	0.53
Toyota	Corolla	98-01	2.95	2.48	3.51	1.03

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Toyota	Corolla	02-06	2.85	2.38	3.41	1.04
Toyota	Tercel	83-88	2.56	1.39	4.69	3.30
Toyota	MR2	87-90	3.20	1.63	6.29	4.65
Toyota	Paseo / Cynos	91-99	3.18	2.30	4.40	2.10
Toyota	Corolla 4WD Wagon	92-96	5.21	3.17	8.56	5.39
Volvo	S40/V40	97-04	2.52	1.37	4.62	3.25
Volkswagen	Golf	82-94	4.35	2.45	7.73	5.28
Volkswagen	Golf	95-98	3.49	2.38	5.14	2.76
Volkswagen	Golf / Bora	99-04	2.44	1.70	3.50	1.80
Volkswagen	New Beetle	00-06	1.60	0.63	4.07	3.44

**AGGRESSIVITY RATINGS
(WITH 90% CONFIDENCE LIMITS)**

**New South Wales and Victoria Data (1987-2006), South Australia Data (1995-2006),
Queensland, Western Australia and New Zealand Data (1991-2006)**

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE			3.37			
4 Wheel Drive - Compact			2.98	2.81	3.17	0.36
Daihatsu	Feroza / Rocky	89-97	3.88	2.85	5.27	2.42
Daihatsu	Rocky / Rugger	85-98	4.99	3.43	7.26	3.83
Daihatsu	Terios	97-05	3.28	2.14	5.02	2.88
Holden	Cruze	02-06	2.50	1.31	4.77	3.46
Kia	Sportage	98-03	3.00	2.01	4.47	2.46
Ford / Mazda	Escape / Tribute	01-06	2.91	2.02	4.19	2.18
Nissan	X-Trail	01-06	3.51	2.51	4.90	2.39
Lada	Niva	84-99	4.39	2.95	6.53	3.58
Honda	CR-V	97-01	3.03	2.42	3.81	1.39
Honda	CR-V	02-06	4.29	3.18	5.79	2.61
Honda	HR-V	99-02	5.05	3.36	7.59	4.23
Subaru	Forester	97-02	2.06	1.51	2.81	1.30
Subaru	Forester	02-06	2.78	1.82	4.24	2.42
Suzuki	Vitara / Escudo	88-98	3.73	3.17	4.39	1.23
Suzuki	Grand Vitara	99-05	1.78	1.05	3.03	1.98
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	3.22	2.73	3.81	1.08
Suzuki	Jimny	98-06	4.03	2.11	7.68	5.57
Toyota	RAV4	94-00	4.08	3.44	4.84	1.40
Toyota	RAV4	01-06	3.98	3.10	5.10	2.00
4 Wheel Drive - Large			5.05	4.86	5.25	0.38
Ford	Bronco	82-87	6.96	4.26	11.37	7.11
Ford	Explorer	00-01	3.17	1.94	5.19	3.25
Jeep	Grand Cherokee ZG	96-99	3.68	2.31	5.88	3.57
Jeep	Grand Cherokee WJ/WG	99-05	4.80	3.03	7.61	4.58
Mercedes Benz	M-Class W163	98-05	3.67	2.20	6.14	3.94
Nissan	Patrol / Safari	82-87	6.19	5.14	7.46	2.32
Nissan / Ford	Patrol / Maverick / Safari	88-97	5.19	4.73	5.69	0.95
Nissan	Patrol / Safari	98-04	5.74	5.00	6.57	1.57
Land Rover	Range Rover	82-94	6.08	4.67	7.92	3.25
Land Rover	Range Rover	95-02	3.62	1.97	6.64	4.67
Toyota	Landcruiser	82-89	6.47	5.93	7.05	1.11
Toyota	Landcruiser	90-97	6.18	5.75	6.64	0.90
Toyota	Landcruiser	98-06	5.64	5.01	6.34	1.33
4 Wheel Drive - Medium			3.97	3.74	4.21	0.47
Daewoo / Ssangong	Musso	98-02	3.40	1.95	5.92	3.97

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Ford	Territory SX/SY	04-06	5.08	3.16	8.18	5.02
Holden / Isuzu	Jackaroo / Bighorn	82-91	5.41	4.26	6.86	2.59
Holden / Isuzu	Jackaroo / Bighorn	92-97	4.95	3.78	6.49	2.71
Holden / Isuzu	Jackaroo / Bighorn	98-02	5.83	4.25	8.00	3.75
Holden	Frontera / Mu	95-03	4.38	2.75	6.97	4.22
Hyundai	Santa Fe	00-06	4.40	2.62	7.39	4.78
Mitsubishi	Pajero	82-90	4.87	4.12	5.74	1.62
Mitsubishi	Pajero	92-99	4.39	3.80	5.07	1.27
Mitsubishi	Pajero NM / NP / NS	00-06	3.56	2.45	5.16	2.71
Mitsubishi	Challenger	98-06	2.98	1.83	4.83	2.99
Jeep	Cherokee XJ	96-00	4.12	3.24	5.24	2.00
Jeep	Wrangler	96-04	5.46	3.59	8.30	4.71
Land Rover	Defender	92-06	4.01	2.49	6.45	3.96
Land Rover	Discovery	91-02	3.58	2.74	4.66	1.92
Nissan	Pathfinder / Terrano	88-94	5.14	4.06	6.50	2.44
Nissan	Pathfinder / Terrano / Regulus	95-05	4.56	3.45	6.04	2.59
Toyota	Landcruiser Prado	96-03	7.21	5.42	9.59	4.18
Toyota	Landcruiser Prado	03-06	4.79	3.42	6.71	3.29
Commercial - Ute			3.99	3.88	4.11	0.23
Ford / Nissan	Falcon Ute / XFN Ute	82-95	4.30	3.92	4.73	0.81
Ford	Falcon Ute	96-99	4.26	3.50	5.18	1.68
Ford	Falcon Ute AU	00-02	4.91	4.12	5.86	1.74
Ford	Falcon Ute BA/BF	03-06	4.23	3.21	5.58	2.37
Ford	Ford F-Series	82-92	6.32	5.03	7.93	2.90
Holden	Commodore Ute VG/VP	90-93	3.04	2.36	3.91	1.55
Holden / Isuzu	Rodeo / Pickup	82-85	4.95	3.68	6.66	2.98
Holden / Isuzu	Rodeo / Pickup	86-88	3.96	2.53	6.21	3.68
Holden / Isuzu	Rodeo / Pickup	89-95	5.12	4.62	5.67	1.05
Holden	Rodeo	96-98	4.77	4.07	5.59	1.52
Holden	Rodeo	99-02	5.10	4.33	6.00	1.68
Holden	WB Series	82-85	4.72	3.85	5.78	1.92
Holden	Commodore Ute VR/VS	94-00	4.53	4.06	5.06	1.00
Holden	Commodore VU Ute	00-02	4.15	3.25	5.31	2.06
Holden	Commodore VY/VZ Ute	02-06	4.36	3.54	5.36	1.81
Holden	Rodeo	03-06	4.56	3.63	5.73	2.11
Mitsubishi	Triton MK	96-06	4.81	3.58	6.47	2.89
Kia	Ceres	92-00	3.25	2.31	4.58	2.27
Ford / Mazda	Courier / B-Series / Bounty	98-02	4.31	3.48	5.34	1.85
Ford / Mazda	Courier / Bravo / Bounty	03-06	2.98	1.94	4.58	2.64
Nissan	720 Ute	82-85	3.57	2.81	4.53	1.72
Nissan	Navara	86-91	4.64	4.08	5.29	1.21
Nissan	Navara	92-96	4.68	3.90	5.61	1.71
Nissan	Navara	97-05	4.56	3.73	5.57	1.84
Subaru	Brumby	82-92	3.94	3.07	5.05	1.98
Suzuki	Mighty Boy	85-88	2.29	1.27	4.11	2.83
Toyota	4Runner/Hilux	82-85	5.29	4.69	5.96	1.28
Toyota	4Runner/Hilux	86-88	5.01	4.42	5.67	1.25
Toyota	4Runner/Hilux	89-97	4.66	4.37	4.97	0.60
Toyota	Hilux	98-02	4.93	4.38	5.56	1.18

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Toyota	Hilux	03-04	5.44	4.17	7.10	2.93
Toyota	Hilux	05-06	4.77	3.10	7.34	4.25
Commercial - Van			4.24	4.05	4.44	0.39
Daihatsu	Handivan	82-90	2.35	1.59	3.48	1.90
Ford	Falcon Panel Van	82-95	3.80	3.26	4.44	1.18
Ford	Falcon Panel Van	96-99	3.88	2.61	5.77	3.16
Ford	Transit	95-00	3.84	2.89	5.10	2.21
Ford	Transit	01-06	3.56	2.36	5.36	3.00
Holden	Shuttle / WFR Van	82-87	3.88	2.58	5.83	3.25
Kia	Pregio	02-06	3.53	2.10	5.92	3.82
Mercedes Benz	MB100 / MB140	99-04	5.64	3.70	8.60	4.90
Mercedes Benz	Vito / Viano	99-06	6.47	4.47	9.37	4.90
Mercedes Benz	Sprinter	98-04	4.54	3.00	6.86	3.86
Honda	Acty	83-86	1.63	0.80	3.33	2.53
Holden / Suzuki	Scurry / Carry	82-00	2.70	1.69	4.33	2.64
Toyota	Hiace/Liteace	82-86	5.67	5.06	6.36	1.30
Toyota	Hiace/Liteace	87-89	5.47	4.73	6.32	1.59
Toyota	Hiace/Liteace	90-95	5.62	5.08	6.23	1.16
Toyota	Hiace/Liteace	96-04	4.95	4.38	5.60	1.23
Volkswagen	Caravelle / Transporter	88-94	4.93	2.78	8.76	5.98
Volkswagen	Caravelle / Transporter	95-04	6.49	4.87	8.65	3.78
Large			3.18	3.12	3.24	0.12
BMW	7 Series E23	82-88	2.33	1.08	5.04	3.96
BMW	7 Series E32	89-94	4.81	2.78	8.31	5.53
Ford	Falcon XE/XF	82-88	3.97	3.79	4.15	0.35
Ford	Fairlane Z & LTD F	82-87	3.76	3.33	4.26	0.93
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	3.91	3.72	4.10	0.37
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	3.96	3.69	4.24	0.54
Ford	Fairlane N & LTD D	88-94	3.30	2.85	3.80	0.95
Ford	Fairlane N & LTD D	95-98	3.97	3.21	4.90	1.69
Ford	Fairlane & LTD AU	99-02	3.12	2.25	4.32	2.06
Ford	Falcon EF/EL	94-98	3.90	3.71	4.09	0.38
Ford	Falcon AU	98-02	3.86	3.62	4.13	0.51
Ford	Taurus	96-98	4.13	2.76	6.19	3.44
Ford	Falcon BA/BF	02-06	3.71	3.28	4.19	0.90
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	3.45	3.30	3.62	0.32
Holden	Statesman/Caprice WB	82-85	7.66	4.14	14.15	10.01
Holden	Statesman/Caprice VQ	90-93	3.65	2.52	5.27	2.75
Holden	Statesman/Caprice VR/VS	94-98	3.51	2.99	4.13	1.14
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	3.44	3.27	3.61	0.34
Holden	Commodore VT/VX	97-02	3.95	3.74	4.17	0.43
Holden	Statesman/Caprice WH	99-03	3.54	2.63	4.75	2.11
Holden	Commodore VY/VZ	02-06	3.26	2.90	3.67	0.78
Holden	Monaro	01-06	5.06	3.45	7.41	3.95
Holden	Statesman/Caprice WK/WL	03-06	4.49	2.57	7.87	5.30
Holden	Commodore VB-VL	82-88	3.70	3.52	3.88	0.36
Hyundai	Sonata	98-01	2.82	1.90	4.17	2.27

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Hyundai	Sonata EF	02-05	4.17	2.08	8.37	6.29
Hyundai	Sonata	89-97	3.64	3.10	4.27	1.17
Hyundai	Grandeaur / XG	99-00	4.77	2.68	8.47	5.79
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	3.58	3.37	3.81	0.44
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	3.43	3.17	3.72	0.55
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	3.60	3.38	3.83	0.44
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	3.82	2.60	5.60	3.00
Jaguar	XJ6	82-86	5.29	3.43	8.16	4.73
Jaguar	XJ6	87-94	4.02	2.55	6.35	3.80
Mazda	929 / Luce	82-90	3.28	2.76	3.89	1.12
Mazda	929 / Sentia / Efini MS-9	92-96	6.50	4.02	10.49	6.46
Mercedes Benz	S-Class W126	82-92	2.57	1.78	3.71	1.94
Mercedes Benz	S-Class C140	93-98	3.65	2.01	6.66	4.65
Nissan	Skyline	83-88	3.73	3.29	4.23	0.93
Nissan	300ZX / Fairlady Z	90-95	5.50	3.87	7.81	3.94
Nissan	Maxima	90-94	3.33	2.53	4.39	1.85
Nissan	Maxima / Cefiro	95-99	2.96	2.27	3.85	1.59
Nissan	Maxima	00-02	3.51	2.31	5.34	3.04
Honda	Legend	86-95	4.76	3.59	6.31	2.72
Toyota	Camry	98-02	3.64	3.34	3.96	0.62
Toyota	Crown / Cressida / Mark II	82-85	4.13	3.41	5.00	1.59
Toyota	Crown / Cressida / Mark II	86-88	3.43	2.47	4.75	2.29
Toyota	Cressida / Mark II	89-93	2.43	1.90	3.09	1.19
Toyota	Supra	82-90	6.37	4.53	8.95	4.41
Lexus	ES300 / Windom	92-01	3.27	2.22	4.80	2.57
Lexus	LS400 / Celsior	90-00	4.79	2.74	8.37	5.63
Toyota	Avalon	00-05	4.24	3.45	5.20	1.75
Toyota	Camry	02-06	3.41	2.83	4.12	1.29
Volvo	850/S70/V70/C70	92-04	4.47	3.60	5.54	1.94
Volvo	700/900 Series	84-92	3.59	2.87	4.50	1.63
Light			2.29	2.22	2.36	0.13
Daihatsu	Charade	82-86	2.69	2.13	3.39	1.25
Daihatsu	Charade	88-92	2.18	1.88	2.53	0.65
Daihatsu	Charade	93-00	2.57	2.19	3.02	0.83
Daihatsu	Pyzar	97-01	1.83	0.96	3.51	2.55
Daihatsu	Sirion / Storia	98-04	1.75	1.20	2.56	1.37
Daihatsu	Mira	90-96	2.53	1.80	3.56	1.76
Daewoo	Matiz	99-04	2.64	1.74	4.00	2.26
Daewoo	Kalos	03-04	3.51	1.81	6.79	4.99
Ford	Festiva WD/WH/WF	94-01	2.60	2.35	2.88	0.53
Ford	Ka	99-02	3.18	1.96	5.18	3.23
Holden	Barina XC	01-06	2.56	1.95	3.35	1.40
Holden	Barina SB	95-00	2.80	2.44	3.23	0.79
Hyundai	Getz	02-06	4.50	3.48	5.82	2.34
Mitsubishi	Mirage / Colt	82-88	2.88	2.61	3.18	0.57
Ford / Mazda	Festiva WA / 121	87-90	2.53	2.20	2.92	0.72
Mazda	121 / Autozam Review	94-96	1.81	1.42	2.29	0.87

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Mazda	121 Metro / Demio	97-02	1.95	1.52	2.49	0.96
Mazda	2	02-06	4.12	2.50	6.79	4.30
Nissan	Micra	95-97	2.46	1.64	3.68	2.04
Honda	Jazz	02-06	2.28	1.46	3.56	2.10
Honda	City	83-86	2.07	1.29	3.32	2.03
Peugoet	205	87-94	1.78	0.81	3.93	3.12
Peugeot	206	99-06	2.59	1.47	4.56	3.09
Subaru	Sherpa / Fiori / 700 / Rex	89-92	2.11	1.44	3.08	1.64
Suzuki	Swift	82-85	2.96	1.44	6.11	4.67
Holden / Suzuki	Barina / Swift / Cultus	86-88	2.46	2.07	2.92	0.85
Holden / Suzuki	Barina / Swift / Cultus	89-99	2.41	2.20	2.65	0.46
Suzuki	Hatch / Alto	82-84	3.29	2.33	4.64	2.32
Suzuki	Alto	85-00	4.05	2.53	6.49	3.95
Suzuki	Ignis	00-02	2.63	1.53	4.51	2.97
Toyota	Starlet	96-99	2.51	2.10	3.00	0.90
Toyota	Echo	99-05	2.25	1.87	2.70	0.82
Volkswagen	Polo	96-00	2.15	1.31	3.53	2.22
Medium			2.78	2.72	2.85	0.13
Alfa Romeo	156	99-06	1.82	0.87	3.81	2.95
Audi	A4	95-01	2.68	1.79	4.01	2.22
BMW	Z3 E36	97-03	4.33	2.33	8.05	5.73
BMW	3 Series E30	82-91	2.82	2.36	3.37	1.00
BMW	3 Series E36	92-98	3.09	2.67	3.58	0.92
BMW	3 Series E46	99-04	2.91	2.30	3.69	1.39
BMW	5 Series E28	82-88	4.02	2.94	5.51	2.58
BMW	5 Series E34	89-95	3.83	2.85	5.14	2.29
BMW	5 Series E39	96-03	2.41	1.58	3.66	2.08
Daewoo	Espero	95-97	3.07	2.12	4.45	2.33
Daewoo	Leganza	97-02	3.93	2.71	5.69	2.98
Ford	Cortina	82-82	3.65	3.12	4.27	1.15
Ford	Mondeo	95-01	3.33	2.75	4.03	1.28
Ford	Probe	94-98	5.01	2.89	8.68	5.79
Ford	Cougar	99-03	3.10	1.74	5.53	3.79
Holden	Calibra	94-97	4.47	3.07	6.49	3.42
Holden	Camira	82-89	3.57	3.29	3.88	0.58
Holden	Vectra	97-03	3.26	2.74	3.87	1.12
Hyundai	Elantra	00-06	3.16	2.38	4.20	1.82
Hyundai	Lantra	91-95	2.92	2.27	3.77	1.50
Hyundai	Lantra	96-00	3.19	2.73	3.74	1.01
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	3.28	3.02	3.57	0.54
Mitsubishi	Galant	95-96	2.90	2.30	3.66	1.36
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	3.09	2.81	3.40	0.58
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	3.37	3.01	3.76	0.75
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	2.60	2.29	2.96	0.67
Mazda	626	98-02	3.48	2.82	4.30	1.48
Mazda	RX7	82-85	4.52	3.06	6.67	3.61
Mazda	RX7	86-91	3.09	1.88	5.08	3.20
Mazda	Eunos 500	93-99	2.61	1.43	4.78	3.35

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Mazda	6	02-06	1.75	1.02	3.00	1.98
Mercedes Benz	C-Class W201	87-93	3.05	2.14	4.34	2.20
Mercedes Benz	C-Class W202	95-00	2.54	1.89	3.40	1.51
Mercedes Benz	CLK C208	97-03	2.93	1.52	5.65	4.13
Mercedes Benz	E-Class W123	82-85	2.89	1.78	4.69	2.91
Mercedes Benz	E-Class W124	86-94	3.46	2.64	4.53	1.89
Mercedes Benz	E-Class W210	96-02	4.09	2.90	5.75	2.85
Mercedes Benz	C-Class W203	00-06	1.24	0.58	2.67	2.09
Nissan	Pintara	86-88	3.38	2.95	3.86	0.91
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	3.62	3.29	3.99	0.71
Nissan	Bluebird	82-86	3.08	2.80	3.38	0.58
Nissan	Bluebird	93-97	2.65	2.15	3.27	1.11
Nissan	200SX / Silvia	94-02	4.06	2.99	5.50	2.51
Honda	Accord Euro	03-06	1.65	1.00	2.74	1.74
Honda	Accord	03-06	6.06	3.43	10.71	7.29
Honda	Accord	82-85	2.31	1.87	2.86	0.99
Honda	Accord	86-90	3.18	2.68	3.78	1.10
Honda	Accord	91-93	2.50	1.94	3.22	1.28
Honda	Accord	94-98	3.21	2.68	3.84	1.15
Honda	Accord	99-02	3.12	2.10	4.62	2.52
Honda	Prelude	82-82	1.81	0.73	4.51	3.78
Honda	Prelude	83-91	3.05	2.62	3.55	0.92
Honda	Prelude	92-96	2.87	2.22	3.71	1.49
Honda	Prelude	97-02	3.18	2.15	4.71	2.56
Peugeot	405	89-97	2.49	1.72	3.60	1.88
Peugeot	505	82-93	3.64	2.47	5.38	2.91
Peugeot	406	96-04	2.17	1.09	4.30	3.21
Renault	Feugo	82-87	1.74	0.84	3.60	2.75
Saab	900 Series	82-92	2.03	1.37	3.00	1.63
Saab	900/9-3	94-02	2.66	1.93	3.67	1.74
Saab	9000	86-97	2.54	1.78	3.62	1.84
Saab	9-5	98-05	1.24	0.46	3.37	2.91
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	2.56	2.24	2.92	0.69
Subaru	Liberty / Legacy	89-93	3.09	2.71	3.51	0.80
Subaru	Liberty / Legacy / Outback	94-98	3.50	2.92	4.21	1.29
Subaru	Liberty / Legacy / Outback	99-03	2.55	2.01	3.24	1.23
Subaru	Liberty / Legacy / Outback	03-06	1.06	0.53	2.09	1.56
Toyota	Corona	82-88	3.36	3.12	3.61	0.49
Toyota	Camry	83-86	3.28	2.77	3.88	1.10
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	3.52	3.32	3.74	0.42
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	3.53	3.31	3.77	0.46
Toyota	Celica	81-85	3.89	3.26	4.64	1.38
Toyota	Celica	86-89	3.84	3.16	4.67	1.50
Toyota	Celica	90-93	4.13	3.43	4.97	1.54
Toyota	Celica	94-99	3.46	2.61	4.58	1.96
Toyota	Celica	00-05	4.02	2.56	6.33	3.77
Lexus	IS200 / IS300	99-04	2.90	1.54	5.45	3.91
Volvo	200 Series	82-93	3.41	2.83	4.11	1.29
Volkswagen	Passat	98-06	2.79	1.61	4.84	3.23

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
People Mover			3.64	3.45	3.84	0.39
Chrysler	Voyager	97-06	4.52	2.94	6.97	4.03
Holden	Zafira TT	01-05	3.01	1.57	5.78	4.21
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	2.51	1.64	3.82	2.18
Mitsubishi	Nimbus / Chariot	92-98	3.90	2.87	5.29	2.42
Mitsubishi	Nimbus	99-03	0.74	0.22	2.46	2.24
Mitsubishi	Starwagon / L300	83-86	5.06	4.35	5.89	1.54
Mitsubishi	Starwagon / Delica Starwagon	87-93	4.29	3.84	4.80	0.97
Mitsubishi	Starwagon / Delica Spacegear	95-98	4.79	3.89	5.90	2.01
Mitsubishi	Starwagon / Delica Spacegear	98-03	3.93	2.91	5.31	2.40
Kia	Carnival	99-06	5.49	3.89	7.74	3.86
Mazda	MPV	94-99	5.26	3.18	8.69	5.51
Nissan	Prairie	84-86	3.07	1.98	4.76	2.77
Honda	Odyssey	95-00	4.50	3.23	6.27	3.04
Toyota	Tarago	83-89	4.23	3.69	4.85	1.15
Toyota	Tarago / Previa / Estima	91-99	3.69	3.10	4.38	1.28
Toyota	Tarago / Previa / Estima	00-06	3.90	2.63	5.77	3.13
Small			2.43	2.37	2.48	0.11
Alfa Romeo	33	83-92	1.80	1.11	2.94	1.83
Alfa Romeo	75	86-92	4.50	2.27	8.91	6.64
Audi	A3/S3	97-04	4.20	2.41	7.32	4.91
Audi	A4	01-06	2.62	1.58	4.34	2.76
Chrysler	Neon	96-99	1.81	1.04	3.17	2.13
Daihatsu	Applause	89-99	2.57	2.08	3.17	1.09
Daewoo	1.5i	94-95	2.25	0.74	6.85	6.11
Daewoo	Cielo	95-97	2.55	2.13	3.07	0.94
Daewoo	Nubira	97-03	2.55	2.04	3.17	1.13
Daewoo	Lanos	97-03	3.34	2.87	3.89	1.02
Ford	Laser	91-94	2.89	2.65	3.16	0.51
Ford	Laser	95-97	2.77	2.37	3.25	0.88
Ford	Escort	82-82	2.76	2.09	3.63	1.55
Ford	Capri	89-94	2.63	2.01	3.45	1.44
Ford	Focus LR	02-05	2.84	1.99	4.04	2.04
Holden	Gemini	82-84	2.69	2.33	3.11	0.78
Holden	Gemini RB	86-87	2.48	1.78	3.45	1.68
Holden	Astra TR	96-98	2.69	1.99	3.63	1.64
Holden	Astra TS	98-06	2.71	2.38	3.08	0.70
Holden	Astra AH	04-06	3.00	1.63	5.51	3.88
Hyundai	Excel	86-90	3.26	2.74	3.88	1.15
Hyundai	Excel	90-94	2.85	2.54	3.19	0.65
Hyundai	Excel / Accent	95-00	2.82	2.62	3.03	0.42
Hyundai	S Coupe	90-96	2.37	1.71	3.29	1.58
Hyundai	Coupe	96-00	2.59	1.73	3.89	2.16
Hyundai	Accent	00-06	3.10	2.61	3.70	1.09
Mitsubishi	Lancer / Mirage CA	89-90	2.61	2.28	3.00	0.72
Mitsubishi	Lancer / Mirage CB	91-92	3.75	2.93	4.81	1.87
Mitsubishi	Lancer / Mirage CC	93-95	2.27	1.98	2.60	0.62
Mitsubishi	Lancer / Mirage CE	96-03	2.74	2.50	2.99	0.49

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Mitsubishi	Cordia	83-87	4.36	3.61	5.26	1.65
Mitsubishi	Lancer CH	03-06	3.35	2.32	4.84	2.52
Kia	Rio	00-05	3.78	2.94	4.86	1.92
Kia	Spectra	01-04	4.57	2.25	9.31	7.06
Ford / Mazda	Laser / 323 / Familia	82-88	2.88	2.73	3.03	0.30
Mazda	323 / Familia / Lantis	90-93	2.34	2.02	2.72	0.71
Mazda	323 / Familia / Lantis	95-98	2.37	2.01	2.80	0.80
Ford / Mazda	Laser / 323	99-03	2.34	1.98	2.76	0.78
Mazda	MX5 / Eunos Roadster	89-97	2.70	1.65	4.41	2.77
Mazda	MX5 / Eunos Roadster	98-05	0.54	0.16	1.82	1.66
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	2.76	1.63	4.69	3.06
Mazda	3	03-06	3.24	2.33	4.51	2.18
Mercedes Benz	A-Class W168	98-04	2.03	0.99	4.17	3.19
Holden / Nissan	Astra / Pulsar / Langley	84-86	3.18	2.86	3.52	0.65
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	3.21	2.94	3.50	0.56
Nissan	Pulsar / Vector / Sentra	92-95	3.15	2.80	3.54	0.74
Nissan	Pulsar / Vector / Sentra	96-99	2.76	2.44	3.12	0.68
Nissan	Stanza	82-83	5.16	3.46	7.67	4.21
Nissan	Gazelle / Silvia	84-86	3.17	2.10	4.77	2.66
Nissan	Exa	83-86	5.24	3.57	7.68	4.11
Nissan	Exa	87-91	5.39	3.25	8.95	5.70
Nissan	NX/NX-R	91-96	4.26	3.12	5.82	2.70
Nissan	Pulsar	00-05	2.66	2.25	3.14	0.89
Honda	Civic	82-83	2.20	1.52	3.18	1.66
Honda	Civic / Ballade / Shuttle	84-87	3.05	2.54	3.67	1.13
Honda	Civic / Shuttle	88-91	2.72	2.34	3.17	0.82
Honda	Civic	92-95	3.05	2.65	3.51	0.86
Honda	Civic	96-00	2.43	2.05	2.89	0.84
Honda	CRX	87-91	3.08	2.03	4.67	2.64
Honda	CRX	92-98	4.68	2.60	8.40	5.80
Honda	Civic	01-05	2.61	1.86	3.65	1.79
Honda	Integra	86-88	2.20	1.53	3.18	1.66
Honda	Integra	90-92	4.40	3.26	5.95	2.70
Honda	Integra	93-01	2.58	1.88	3.54	1.67
Honda	Concerto	89-93	2.48	1.66	3.69	2.03
Peugeot	306	94-01	2.61	1.92	3.54	1.62
Peugeot	307	01-06	2.11	1.06	4.19	3.12
Proton	Wira	95-96	3.75	2.82	4.97	2.15
Renault	19	91-96	2.87	1.62	5.10	3.48
Rover	Quintet	82-86	0.87	0.30	2.54	2.25
MG	MGF / MG TF	99-05	1.56	0.64	3.82	3.18
Subaru	Impreza	93-00	3.68	3.18	4.26	1.08
Subaru	Impreza	01-06	2.25	1.58	3.20	1.62
Suzuki	Baleno / Cultus Crescent	95-02	1.60	1.11	2.31	1.19
Suzuki	Liana	01-06	3.35	1.74	6.47	4.73
Toyota	Corolla	82-84	2.53	2.29	2.80	0.51
Toyota	Corolla	86-88	2.90	2.68	3.15	0.47
Toyota / Holden	Corolla / Nova	89-93	2.97	2.79	3.18	0.39
Toyota / Holden	Corolla / Nova	94-97	2.51	2.30	2.74	0.44
Toyota	Corolla	98-01	2.95	2.55	3.41	0.86

Make	Model of Car	Years of Manufacture	Serious injury rate per 100 drivers involved	Lower 90% Confidence Limit	Upper 90% Confidence Limit	Width of Confidence Interval
Toyota	Corolla	02-06	2.85	2.45	3.32	0.87
Toyota	Tercel	83-88	2.56	1.54	4.25	2.71
Toyota	MR2	87-90	3.20	1.82	5.63	3.81
Toyota	Paseo / Cynos	91-99	3.18	2.42	4.17	1.75
Toyota	Corolla 4WD Wagon	92-96	5.21	3.44	7.89	4.45
Volvo	S40/V40	97-04	2.52	1.51	4.19	2.67
Volkswagen	Golf	82-94	4.35	2.69	7.04	4.35
Volkswagen	Golf	95-98	3.49	2.53	4.82	2.29
Volkswagen	Golf / Bora	99-04	2.44	1.80	3.30	1.50
Volkswagen	New Beetle	00-06	1.60	0.73	3.49	2.76

**TOTAL SECONDARY SAFETY INDEX OF
1982-2006 MODELS OF CARS INVOLVED IN
CRASHES DURING 1987-2006
with
90 % CONFIDENCE LIMITS**

TOTAL SECONDARY SAFETY INDEX

(WITH 90% CONFIDENCE LIMITS)

**Victoria and New South Wales Data (1987-2006), Queensland, Western Australia
and New Zealand Data (1991-2006)**

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
ALL VEHICLE AVERAGE					3.57			
Compact Four Wheel Drive Vehicles			16.19	20.17	3.27	3.14	3.39	0.25
Daihatsu	Feroza / Rocky	89-97	18.71	22.50	4.21	3.49	5.08	1.59
Daihatsu	Rocky / Rugger	85-98	20.00	28.87	5.77	4.69	7.11	2.42
Daihatsu	Terios	97-05	21.33	20.04	4.27	3.40	5.37	1.97
Holden	Cruze	02-06	17.76	25.75	4.57	3.44	6.07	2.63
Hyundai	Tucson	04-06	11.41	17.93	2.05	0.84	4.96	4.11
Mitsubishi	Pajero iO	99-03	19.12	33.58	6.42	3.51	11.74	8.23
Mitsubishi	Outlander	03-06	14.14	18.68	2.64	1.44	4.84	3.40
Kia	Sportage	98-03	16.17	15.13	2.45	1.81	3.30	1.49
Kia	Sorento	03-06	12.34	17.50	2.16	0.98	4.78	3.80
Ford / Mazda	Escape / Tribute	01-06	13.60	20.21	2.75	2.16	3.50	1.34
Nissan	X-Trail	01-06	15.13	21.04	3.18	2.57	3.95	1.39
Lada	Niva	84-99	18.16	22.70	4.12	3.10	5.48	2.37
Honda	CR-V	97-01	13.53	17.87	2.42	2.04	2.86	0.82
Honda	CR-V	02-06	13.71	19.80	2.72	2.15	3.42	1.27
Honda	HR-V	99-02	14.59	29.68	4.33	3.24	5.79	2.55
Landrover	Freelander	98-06	14.74	32.01	4.72	3.15	7.07	3.92
Subaru	Forester	97-02	13.20	16.01	2.11	1.74	2.57	0.83
Subaru	Forester	02-06	13.62	17.90	2.44	1.85	3.21	1.35
Suzuki	Vitara / Escudo	88-98	18.47	21.80	4.03	3.63	4.47	0.84
Suzuki	Grand Vitara	99-05	13.87	18.03	2.50	1.86	3.36	1.50

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99	21.59	20.76	4.48	4.08	4.92	0.83
Suzuki	Jimny	98-06	20.12	19.70	3.96	2.68	5.85	3.17
Toyota	RAV4	94-00	15.44	21.79	3.36	2.97	3.81	0.84
Toyota	RAV4	01-06	14.65	23.12	3.39	2.88	3.99	1.11
Large Four Wheel Drive Vehicles			14.80	24.36	3.61	3.50	3.71	0.21
BMW	X5	01-06	10.84	14.14	1.53	0.66	3.54	2.88
Ford	Bronco	82-87	19.19	28.81	5.53	3.78	8.08	4.29
Ford	Explorer	00-01	17.29	21.94	3.79	2.84	5.07	2.23
Ford	Explorer	01-05	11.94	14.78	1.77	1.03	3.02	1.98
Jeep	Grand Cherokee ZG	96-99	14.15	19.56	2.77	1.92	4.00	2.08
Jeep	Grand Cherokee WJ/WG	99-05	12.36	24.29	3.00	2.04	4.41	2.37
Mercedes Benz	M-Class W163	98-05	14.29	12.57	1.80	1.15	2.79	1.64
Nissan	Patrol / Safari	82-87	16.92	25.12	4.25	3.67	4.93	1.26
Nissan / Ford	Patrol / Maverick / Safari	88-97	14.88	23.99	3.57	3.32	3.84	0.52
Nissan	Patrol / Safari	98-04	13.80	25.11	3.47	3.10	3.88	0.78
Land Rover	Range Rover	82-94	16.45	22.46	3.70	3.02	4.52	1.49
Land Rover	Range Rover	95-02	13.41	18.97	2.54	1.58	4.10	2.52
Toyota	Landcruiser	82-89	17.70	27.78	4.92	4.61	5.24	0.63
Toyota	Landcruiser	90-97	15.78	26.41	4.17	3.94	4.41	0.48
Toyota	Landcruiser	98-06	14.50	24.92	3.61	3.30	3.96	0.65
Medium Four Wheel Drive Vehicles			14.42	21.21	3.06	2.93	3.19	0.27
Daewoo / Ssangong	Musso	98-02	11.36	29.10	3.31	2.24	4.87	2.63
Ford	Territory SX/SY	04-06	12.91	24.28	3.13	2.18	4.50	2.31
Holden / Isuzu	Jackaroo / Bighorn	82-91	20.32	18.91	3.84	3.19	4.62	1.43
Holden / Isuzu	Jackaroo / Bighorn	92-97	15.85	23.21	3.68	2.99	4.53	1.54
Holden / Isuzu	Jackaroo / Bighorn	98-02	16.33	23.15	3.78	2.96	4.82	1.85

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Holden	Frontera / Mu	95-03	15.56	25.19	3.92	2.83	5.43	2.60
Holden	Adventra	03-06	15.00	13.10	1.97	0.95	4.08	3.13
Hyundai	Santa Fe	00-06	17.00	22.01	3.74	2.56	5.46	2.90
Hyundai	Terracan	01-06	14.23	22.68	3.23	1.45	7.20	5.76
Mitsubishi	Pajero	82-90	17.91	24.33	4.36	3.88	4.90	1.02
Mitsubishi	Pajero	92-99	14.47	22.40	3.24	2.91	3.62	0.71
Mitsubishi	Pajero NM / NP / NS	00-06	11.18	19.42	2.17	1.65	2.86	1.21
Mitsubishi	Challenger	98-06	15.39	19.33	2.97	2.16	4.10	1.95
Jeep	Cherokee XJ	96-00	15.46	21.08	3.26	2.72	3.90	1.18
Jeep	Wrangler	96-04	17.70	25.78	4.56	3.34	6.23	2.90
Jeep	Cherokee KJ	01-04	9.66	13.35	1.29	0.58	2.88	2.30
Land Rover	Defender	92-06	14.66	21.36	3.13	2.25	4.36	2.12
Land Rover	Discovery	91-02	14.22	18.51	2.63	2.15	3.22	1.08
Nissan	Pathfinder / Terrano	88-94	17.27	20.83	3.60	3.00	4.32	1.32
Nissan	Pathfinder / Terrano / Regulus	95-05	12.93	22.18	2.87	2.30	3.57	1.27
Toyota	Kluger	03-06	13.66	17.52	2.39	1.52	3.78	2.26
Toyota	Landcruiser Prado	96-03	12.60	28.18	3.55	2.79	4.52	1.73
Toyota	Landcruiser Prado	03-06	11.93	20.83	2.49	1.89	3.26	1.37
Lexus	RX330	03-05	9.25	36.16	3.34	1.79	6.25	4.47
Commercial- Ute			15.39	22.67	3.49	3.42	3.56	0.14
Ford / Nissan	Falcon Ute / XFN Ute	82-95	16.68	23.01	3.84	3.60	4.10	0.50
Ford	Falcon Ute	96-99	16.60	20.62	3.42	2.98	3.93	0.95
Ford	Falcon Ute AU	00-02	15.19	21.97	3.34	2.91	3.82	0.91
Ford	Falcon Ute BA/BF	03-06	13.63	19.86	2.71	2.19	3.34	1.15
Ford	Ford F-Series	82-92	17.93	23.23	4.16	3.43	5.05	1.61
Ford	F-Series	01-06	10.08	24.58	2.48	1.38	4.43	3.05
Holden	Commodore Ute VG/VP	90-93	15.99	22.92	3.66	3.16	4.25	1.10
Holden / Isuzu	Rodeo / Pickup	82-85	18.00	24.95	4.49	3.66	5.51	1.86

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Holden / Isuzu	Rodeo / Pickup	86-88	18.64	17.13	3.19	2.26	4.52	2.26
Holden / Isuzu	Rodeo / Pickup	89-95	17.18	25.81	4.43	4.12	4.77	0.65
Holden	Rodeo	96-98	16.37	22.62	3.70	3.30	4.16	0.86
Holden	Rodeo	99-02	16.08	22.69	3.65	3.24	4.11	0.87
Holden	WB Series	82-85	16.59	28.60	4.74	4.14	5.43	1.28
Holden	Commodore Ute VR/VS	94-00	15.93	24.83	3.96	3.68	4.26	0.58
Holden	Commodore VU Ute	00-02	13.75	25.80	3.55	3.03	4.16	1.13
Holden	Commodore VY/VZ Ute	02-06	13.90	22.98	3.19	2.77	3.69	0.92
Holden	Rodeo	03-06	14.02	20.99	2.94	2.46	3.52	1.06
Mitsubishi	Triton MK	96-06	14.15	22.53	3.19	2.52	4.03	1.51
Kia	Ceres	92-00	17.20	26.52	4.56	3.77	5.53	1.76
Ford / Mazda	Courier / B-Series / Bounty	98-02	14.17	24.40	3.46	2.96	4.03	1.07
Ford / Mazda	Courier / Bravo / Bounty	03-06	16.81	20.01	3.36	2.55	4.43	1.87
Nissan	720 Ute	82-85	17.35	19.95	3.46	2.96	4.05	1.08
Nissan	Navara	86-91	16.32	23.25	3.79	3.45	4.17	0.72
Nissan	Navara	92-96	16.36	22.07	3.61	3.15	4.14	1.00
Nissan	Navara	97-05	13.61	22.92	3.12	2.66	3.66	1.00
Subaru	Brumby	82-92	18.20	27.30	4.97	4.38	5.64	1.26
Suzuki	Mighty Boy	85-88	27.44	23.49	6.45	5.12	8.12	3.00
Toyota	4Runner/Hilux	82-85	17.67	24.62	4.35	4.02	4.71	0.69
Toyota	4Runner/Hilux	86-88	17.18	24.78	4.26	3.92	4.63	0.71
Toyota	4Runner/Hilux	89-97	16.47	23.90	3.94	3.76	4.12	0.36
Toyota	Hilux	98-02	15.12	22.47	3.40	3.10	3.72	0.61
Toyota	Hilux	03-04	15.22	23.80	3.62	2.98	4.40	1.42
Toyota	Hilux	05-06	14.83	30.05	4.46	3.33	5.96	2.63
Commercial- Van			17.20	21.74	3.74	3.62	3.87	0.25
Daihatsu	Handivan	82-90	25.25	24.78	6.26	5.23	7.49	2.26
Daihatsu	Hi-Jet	82-90	32.08	25.12	8.06	5.88	11.03	5.15

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Daihatsu	Handivan / Cuore	99-03	20.46	16.37	3.35	2.02	5.56	3.55
Ford	Falcon Panel Van	82-95	16.57	21.46	3.56	3.18	3.98	0.79
Ford	Falcon Panel Van	96-99	14.96	20.19	3.02	2.22	4.11	1.89
Ford	Transit	95-00	15.89	19.27	3.06	2.46	3.81	1.36
Ford	Transit	01-06	12.79	16.55	2.12	1.52	2.95	1.43
Holden	Shuttle / WFR Van	82-87	20.87	22.05	4.60	3.56	5.94	2.38
Kia	Pregio	02-06	19.26	18.50	3.56	2.49	5.10	2.61
Mercedes Benz	MB100 / MB140	99-04	14.56	23.34	3.40	2.36	4.90	2.55
Mercedes Benz	Vito / Viano	99-06	13.82	25.17	3.48	2.54	4.76	2.21
Mercedes Benz	Sprinter	98-04	16.35	20.03	3.28	2.39	4.50	2.11
Honda	Acty	83-86	14.88	18.62	2.77	1.91	4.02	2.12
Holden / Suzuki	Scurry / Carry	82-00	26.43	26.16	6.91	5.62	8.50	2.87
Suzuki	Carry	99-05	15.34	15.23	2.34	1.07	5.09	4.01
Toyota	Hiace/Liteace	82-86	20.41	25.39	5.18	4.79	5.61	0.82
Toyota	Hiace/Liteace	87-89	19.93	23.48	4.68	4.21	5.20	0.99
Toyota	Hiace/Liteace	90-95	19.02	23.43	4.46	4.12	4.83	0.71
Toyota	Hiace/Liteace	96-04	16.49	21.49	3.54	3.21	3.91	0.70
Toyoa	Hiace	05-06	10.67	23.94	2.55	1.38	4.74	3.36
Volkswagen	Caravelle / Transporter	88-94	15.77	21.00	3.31	2.13	5.16	3.03
Volkswagen	Caravelle / Transporter	95-04	17.24	19.54	3.37	2.60	4.36	1.76
Large Cars			15.28	20.89	3.19	3.15	3.23	0.08
BMW	7 Series E23	82-88	13.94	17.31	2.41	1.49	3.91	2.41
BMW	7 Series E32	89-94	15.74	24.26	3.82	2.57	5.68	3.11
BMW	7 Series E38	95-01	14.97	16.22	2.43	1.34	4.40	3.06
Ford	Falcon XE/XF	82-88	16.98	23.10	3.92	3.80	4.05	0.24
Ford	Fairlane Z & LTD F	82-87	16.57	22.95	3.80	3.51	4.12	0.61
Ford	Falcon EA / Falcon EB Series I	88-Mar 92	16.46	22.28	3.67	3.54	3.79	0.25
Ford	Falcon EB Series II / Falcon ED	Apr 92-94	15.77	22.16	3.50	3.33	3.67	0.34

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Ford	Fairlane N & LTD D	88-94	14.08	21.50	3.03	2.75	3.33	0.58
Ford	Fairlane N & LTD D	95-98	14.97	22.50	3.37	2.90	3.91	1.01
Ford	Fairlane & LTD AU	99-02	14.61	18.82	2.75	2.14	3.53	1.39
Ford	Fairlane & LTD BA/BF	03-06	12.01	34.37	4.13	2.51	6.79	4.28
Ford	Falcon EF/EL	94-98	15.79	21.07	3.33	3.21	3.45	0.24
Ford	Falcon AU	98-02	15.72	20.12	3.16	3.01	3.32	0.31
Ford	Taurus	96-98	16.98	21.87	3.71	2.79	4.94	2.15
Ford	Falcon BA/BF	02-06	14.71	19.46	2.86	2.62	3.13	0.51
Holden / Toyota	Commodore VN/VP / Lexcen	89-93	16.31	22.71	3.71	3.59	3.82	0.23
Holden	Statesman/Caprice WB	82-85	17.91	39.88	7.14	5.04	10.11	5.07
Holden	Stateman/Caprice VQ	90-93	14.79	26.00	3.84	3.08	4.80	1.72
Holden	Stateman/Caprice VR/VS	94-98	14.80	22.37	3.31	2.97	3.69	0.72
Holden / Toyota	Commodore VR/VS / Lexcen	93-97	15.36	21.19	3.25	3.15	3.37	0.22
Holden	Commodore VT/VX	97-02	15.95	20.53	3.27	3.15	3.41	0.26
Holden	Statesman/Caprice WH	99-03	13.35	19.43	2.59	2.06	3.26	1.20
Holden	Commodore VY/VZ	02-06	15.30	17.45	2.67	2.45	2.91	0.46
Holden	Monaro	01-06	17.69	25.69	4.54	3.46	5.97	2.51
Holden	Statesman/Caprice WK/WL	03-06	17.57	18.08	3.18	2.06	4.90	2.84
Holden	Commodore VB-VL	82-88	17.52	23.66	4.15	4.02	4.28	0.26
Hyundai	Sonata	98-01	15.77	21.51	3.39	2.66	4.33	1.67
Hyundai	Sonata EF	02-05	17.38	19.52	3.39	1.88	6.11	4.23
Hyundai	Sonata	89-97	16.41	21.45	3.52	3.16	3.92	0.77
Hyundai	Grandeur / XG	99-00	14.96	17.04	2.55	1.53	4.25	2.72
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90	17.24	22.98	3.96	3.80	4.12	0.32
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03	15.60	20.17	3.15	2.97	3.33	0.36
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96	16.25	20.96	3.41	3.26	3.56	0.30
Mitsubishi	Magna TL/TW / Verada KL/KW	03-05	14.62	17.95	2.62	1.94	3.54	1.60
Jaguar	XJ6	82-86	17.59	29.93	5.27	3.89	7.13	3.24
Jaguar	XJ6	87-94	15.68	17.91	2.81	1.99	3.96	1.96

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Jaguar	XJ6	95-97	14.04	33.57	4.71	2.62	8.47	5.84
Jaguar	XJS	82-96	18.86	15.03	2.83	1.07	7.49	6.41
Jaguar	S-Type	99-06	12.56	9.30	1.17	0.44	3.10	2.66
Mazda	929 / Luce	82-90	17.86	21.62	3.86	3.48	4.29	0.81
Mazda	929 / Sentia / Efini MS-9	92-96	16.46	28.25	4.65	3.23	6.69	3.46
Mercedes Benz	S-Class W126	82-92	13.80	20.15	2.78	2.16	3.57	1.41
Mercedes Benz	S-Class R129	93-02	13.94	11.08	1.55	0.47	5.03	4.55
Mercedes Benz	S-Class C140	93-98	9.94	20.89	2.08	1.20	3.59	2.39
Mercedes Benz	S-Class W220	99-06	10.14	27.47	2.79	1.35	5.75	4.40
Nissan	Skyline	83-88	17.42	22.70	3.96	3.66	4.28	0.62
Nissan	300ZX / Fairlady Z	90-95	18.96	23.24	4.41	3.47	5.59	2.12
Nissan	Maxima	90-94	15.46	19.87	3.07	2.54	3.72	1.18
Nissan	Maxima / Cefiro	95-99	16.16	18.90	3.05	2.54	3.67	1.13
Nissan	Maxima	00-02	15.48	19.94	3.09	2.27	4.20	1.93
Nissan	300C / Laurel	85-87	17.56	25.55	4.49	2.45	8.23	5.78
Nissan	Maxima	03-06	15.21	13.71	2.09	1.13	3.85	2.72
Honda	Legend	86-95	14.94	22.36	3.34	2.71	4.11	1.40
Honda	Legend	96-98	10.51	14.80	1.56	0.56	4.33	3.77
Rover	3500	82-87	19.17	17.26	3.31	1.99	5.51	3.53
Toyota	Camry	98-02	15.66	20.58	3.22	3.03	3.43	0.40
Toyota	Crown / Cressida / Mark II	82-85	17.52	23.92	4.19	3.71	4.74	1.03
Toyota	Crown / Cressida / Mark II	86-88	14.23	26.11	3.72	3.01	4.59	1.59
Toyota	Cressida / Mark II	89-93	13.77	19.21	2.64	2.26	3.09	0.83
Toyota	Supra	82-90	21.13	26.69	5.64	4.48	7.10	2.63
Lexus	ES300 / Windom	92-01	16.36	20.24	3.31	2.55	4.30	1.75
Lexus	LS400 / Celsior	90-00	13.58	22.60	3.07	1.93	4.88	2.95
Lexus	GS300	97-04	11.75	17.68	2.08	0.95	4.56	3.61
Toyota	Avalon	00-05	15.18	20.61	3.13	2.68	3.66	0.98
Toyota	Camry	02-06	14.98	18.21	2.73	2.38	3.12	0.74
Volvo	850/S70/V70/C70	92-04	14.94	22.53	3.36	2.85	3.97	1.11

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Volvo	700/900 Series	84-92	15.20	19.23	2.92	2.48	3.44	0.96
Volvo	960/S90/V90	90-98	17.00	27.46	4.67	2.79	7.81	5.02
Volvo	S80	98-06	13.88	8.30	1.15	0.34	3.89	3.55
Light Cars			18.03	21.19	3.82	3.75	3.90	0.15
Daihatsu	Charade	82-86	22.24	25.84	5.75	5.17	6.39	1.23
Daihatsu	Charade	88-92	19.26	22.71	4.37	4.06	4.72	0.66
Daihatsu	Charade	93-00	18.74	23.48	4.40	4.04	4.79	0.75
Daihatsu	Pyzar	97-01	15.72	24.75	3.89	2.74	5.52	2.78
Daihatsu	Move	97-99	19.09	17.16	3.28	1.69	6.36	4.67
Daihatsu	Sirion / Storia	98-04	16.99	19.38	3.29	2.71	4.00	1.29
Daihatsu	Mira	90-96	25.64	26.36	6.76	5.77	7.91	2.13
Daewoo	Matiz	99-04	21.52	18.96	4.08	3.27	5.10	1.83
Daewoo	Kalos	03-04	16.64	29.29	4.87	3.39	7.00	3.61
Ford	Festiva WD/WH/WF	94-01	19.51	22.11	4.31	4.08	4.56	0.47
Ford	Ka	99-02	17.09	23.24	3.97	2.96	5.32	2.36
Holden	Barina XC	01-06	16.32	17.77	2.90	2.45	3.44	0.99
Holden	Barina SB	95-00	18.21	20.59	3.75	3.45	4.08	0.63
Holden	Barina TK	05-06	10.93	26.43	2.89	1.51	5.53	4.02
Hyundai	Getz	02-06	17.38	29.45	5.12	4.35	6.02	1.67
Mitsubishi	Mirage / Colt	82-88	20.12	22.33	4.49	4.26	4.74	0.48
Ford / Mazda	Festiva WA / 121	87-90	19.70	22.21	4.38	4.07	4.71	0.64
Mazda	121 / Autozam Review	94-96	17.78	18.86	3.35	2.97	3.78	0.81
Mazda	121 Metro / Demio	97-02	16.44	18.69	3.07	2.67	3.53	0.86
Mazda	2	02-06	15.69	26.82	4.21	3.08	5.75	2.67
Nissan	Micra	95-97	18.39	25.27	4.65	3.81	5.66	1.85
Honda	Jazz	02-06	15.87	20.67	3.28	2.52	4.27	1.75
Honda	City	83-86	24.32	21.89	5.33	4.49	6.31	1.82
Peugoet	205	87-94	14.83	20.04	2.97	2.00	4.42	2.42

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Peugeot	206	99-06	14.94	23.36	3.49	2.55	4.77	2.22
Proton	Satria	97-06	19.08	32.71	6.24	3.78	10.32	6.54
Renault	Clio	02-06	17.01	19.35	3.29	1.78	6.09	4.31
Lada	Samara	88-90	16.94	40.69	6.89	3.85	12.35	8.51
Subaru	Sherpa / Fiori / 700 / Rex	89-92	27.68	22.13	6.12	5.16	7.26	2.10
Suzuki	Swift	82-85	22.49	26.28	5.91	4.24	8.25	4.01
Holden / Suzuki	Barina / Swift / Cultus	86-88	22.38	23.34	5.22	4.80	5.68	0.87
Holden / Suzuki	Barina / Swift / Cultus	89-99	18.92	21.99	4.16	3.95	4.38	0.43
Suzuki	Hatch / Alto	82-84	28.40	25.06	7.12	6.10	8.31	2.21
Suzuki	Alto	85-00	27.50	26.76	7.36	5.86	9.24	3.38
Suzuki	Ignis	00-02	19.41	20.90	4.06	3.01	5.47	2.46
Suzuki	Swift	05-06	16.08	21.59	3.47	2.10	5.74	3.64
Toyota	Starlet	96-99	17.22	22.16	3.82	3.45	4.22	0.77
Toyota	Echo	99-05	15.20	22.33	3.39	3.06	3.76	0.70
Toyota	Yaris	05-06	14.47	14.97	2.17	1.25	3.75	2.50
Volkswagen	Polo	96-00	16.08	14.78	2.38	1.65	3.42	1.77
Volkswagen	Polo	02-06	18.84	14.14	2.66	1.18	5.99	4.81
Medium Cars			15.66	20.51	3.21	3.17	3.26	0.09
Alfa Romeo	164	89-92	16.62	32.42	5.39	3.15	9.21	6.06
Alfa Romeo	156	99-06	12.83	17.48	2.24	1.31	3.83	2.52
Alfa Romeo	147	01-06	12.37	21.03	2.60	1.19	5.67	4.48
Audi	A4	95-01	13.01	19.14	2.49	1.87	3.31	1.44
Audi	TT	99-06	11.82	14.93	1.77	0.73	4.29	3.56
BMW	Z3 E36	97-03	12.43	27.72	3.44	2.23	5.32	3.08
BMW	3 Series E30	82-91	15.36	20.27	3.11	2.78	3.49	0.72
BMW	3 Series E36	92-98	14.73	21.53	3.17	2.86	3.51	0.65
BMW	3 Series E46	99-04	14.21	18.57	2.64	2.22	3.14	0.92
BMW	5 Series E28	82-88	14.76	22.93	3.38	2.70	4.24	1.54

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
BMW	5 Series E34	89-95	14.86	24.80	3.68	3.00	4.52	1.52
BMW	5 Series E39	96-03	11.74	18.26	2.14	1.59	2.89	1.30
Chrysler	PT Cruiser	00-06	18.21	31.07	5.66	3.33	9.60	6.27
Daewoo	Espero	95-97	19.28	22.42	4.32	3.49	5.35	1.85
Daewoo	Leganza	97-02	14.88	22.81	3.39	2.60	4.43	1.83
Daewoo	Tacuma	00-04	16.61	38.55	6.40	3.65	11.25	7.60
Ford	Cortina	82-82	18.47	23.06	4.26	3.71	4.89	1.18
Ford	Mondeo	95-01	14.66	19.06	2.79	2.43	3.21	0.79
Ford	Probe	94-98	17.92	25.83	4.63	3.19	6.72	3.53
Ford	Cougar	99-03	13.88	20.57	2.86	1.88	4.34	2.47
Holden	Calibra	94-97	15.82	20.76	3.28	2.46	4.39	1.93
Holden	Camira	82-89	20.38	22.11	4.51	4.29	4.73	0.43
Holden	Vectra	97-03	15.61	18.74	2.93	2.59	3.31	0.72
Holden	Vectra ZC	03-05	13.95	13.75	1.92	1.12	3.28	2.16
Hyundai	Elantra	00-06	16.09	20.84	3.35	2.79	4.03	1.25
Hyundai	Lantra	91-95	18.01	21.57	3.89	3.38	4.47	1.10
Hyundai	Lantra	96-00	16.41	21.75	3.57	3.22	3.96	0.74
Mitsubishi	Sigma / Galant / Sapporo / Lambda	82-84	17.97	22.09	3.97	3.76	4.19	0.43
Mitsubishi	Starion	82-87	18.12	33.82	6.13	4.40	8.53	4.13
Mitsubishi	Galant	95-96	16.72	20.33	3.40	2.93	3.95	1.02
Ford / Mazda	Telstar / 626 / MX6 / Capella	83-86	17.58	20.72	3.64	3.43	3.86	0.43
Ford / Mazda	Telstar / 626 / MX6 / Capella	88-91	16.12	21.35	3.44	3.20	3.71	0.51
Ford / Mazda	Telstar / 626 / MX6 / Capella / Cronos	92-97	14.06	21.70	3.05	2.81	3.31	0.50
Mazda	626	98-02	14.40	23.11	3.33	2.87	3.86	0.99
Mazda	RX7	82-85	18.52	27.26	5.05	4.05	6.29	2.24
Mazda	RX7	86-91	15.41	19.94	3.07	2.25	4.20	1.95
Mazda	RX7	92-98	15.43	26.98	4.16	2.25	7.69	5.44
Mazda	Eunos 500	93-99	18.48	18.03	3.33	2.25	4.94	2.70
Mazda	Eunos 800	94-00	18.95	27.66	5.24	3.11	8.83	5.72
Mazda	6	02-06	14.79	12.81	1.89	1.33	2.70	1.37

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Mercedes Benz	C-Class W201	87-93	14.83	20.80	3.08	2.44	3.90	1.46
Mercedes Benz	C-Class W202	95-00	11.85	21.59	2.56	2.09	3.14	1.06
Mercedes Benz	CLK C208	97-03	14.57	21.54	3.14	1.96	5.03	3.07
Mercedes Benz	E-Class W123	82-85	14.26	20.00	2.85	2.01	4.03	2.02
Mercedes Benz	E-Class W124	86-94	14.32	22.22	3.18	2.61	3.88	1.26
Mercedes Benz	E-Class W210	96-02	13.58	20.95	2.84	2.18	3.71	1.52
Mercedes Benz	SLK R170	97-04	16.24	15.49	2.52	1.20	5.29	4.09
Mercedes Benz	C-Class W203	00-06	13.43	14.44	1.94	1.27	2.97	1.70
Mercedes Benz	E-Class W211	02-06	15.06	22.01	3.31	1.83	6.00	4.16
Nissan	Pintara	86-88	16.96	22.25	3.77	3.47	4.11	0.64
Nissan / Ford	Pintara / Corsair / Bluebird	89-92	17.70	23.28	4.12	3.87	4.38	0.51
Nissan	Bluebird	82-86	18.27	23.19	4.24	4.01	4.47	0.46
Nissan	280ZX	82-84	16.18	30.18	4.88	2.94	8.11	5.17
Nissan	Bluebird	93-97	14.25	20.20	2.88	2.51	3.31	0.80
Nissan	200SX / Silvia	94-02	13.57	24.92	3.38	2.77	4.13	1.35
Nissan	350Z	03-06	24.51	25.66	6.29	3.54	11.17	7.63
Honda	Accord Euro	03-06	13.78	14.29	1.97	1.37	2.82	1.45
Honda	Accord	03-06	16.80	22.67	3.81	2.48	5.85	3.37
Honda	Accord	82-85	18.30	21.76	3.98	3.59	4.42	0.84
Honda	Accord	86-90	15.24	21.69	3.30	2.96	3.69	0.72
Honda	Accord	91-93	13.61	20.15	2.74	2.33	3.23	0.90
Honda	Accord	94-98	15.25	21.17	3.23	2.86	3.64	0.78
Honda	Accord	99-02	14.89	17.30	2.58	1.91	3.48	1.57
Honda	Prelude	82-82	15.69	17.23	2.70	1.59	4.59	3.00
Honda	Prelude	83-91	16.23	23.08	3.75	3.43	4.09	0.66
Honda	Prelude	92-96	15.36	22.89	3.52	3.00	4.13	1.13
Honda	Prelude	97-02	13.96	20.90	2.92	2.20	3.86	1.66
Peugeot	405	89-97	13.17	21.30	2.80	2.22	3.55	1.33
Peugeot	505	82-93	12.21	21.63	2.64	2.03	3.44	1.41
Peugeot	406	96-04	7.02	23.43	1.65	1.01	2.67	1.66

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Porsche	944	82-91	14.51	30.72	4.46	2.45	8.10	5.65
Renault	Feugo	82-87	15.80	18.44	2.91	2.00	4.24	2.24
Saab	900 Series	82-92	15.51	19.07	2.96	2.38	3.68	1.30
Saab	900/9-3	94-02	13.38	15.93	2.13	1.67	2.71	1.04
Saab	9000	86-97	14.52	13.69	1.99	1.51	2.62	1.11
Saab	9-5	98-05	15.37	11.12	1.71	0.86	3.38	2.52
Subaru	1800 / Leone / Omega / 4WD Wagon	82-93	17.61	20.90	3.68	3.42	3.96	0.55
Subaru	Liberty / Legacy	89-93	15.84	20.65	3.27	3.01	3.55	0.55
Subaru	Liberty / Legacy / Outback	94-98	14.17	22.00	3.12	2.75	3.53	0.78
Subaru	Liberty / Legacy / Outback	99-03	13.06	18.59	2.43	2.06	2.86	0.79
Subaru	Liberty / Legacy / Outback	03-06	11.18	21.92	2.45	1.71	3.51	1.79
Toyota	Corona	82-88	18.02	22.59	4.07	3.88	4.27	0.39
Toyota	Camry	83-86	17.92	21.89	3.92	3.54	4.35	0.82
Holden / Toyota	Apollo JK/JL / Camry / Vista	88-92	16.70	21.36	3.57	3.42	3.71	0.29
Holden / Toyota	Apollo JM/JP / Camry / Sceptor	93-97	16.61	21.82	3.63	3.47	3.79	0.32
Toyota	Celica	81-85	19.12	20.21	3.86	3.43	4.35	0.92
Toyota	Celica	86-89	17.30	22.65	3.92	3.44	4.46	1.02
Toyota	Celica	90-93	17.07	22.76	3.89	3.42	4.42	1.00
Toyota	Celica	94-99	17.52	20.58	3.60	3.00	4.33	1.33
Toyota	Celica	00-05	15.66	25.64	4.02	2.91	5.54	2.63
Lexus	IS200 / IS300	99-04	13.95	15.02	2.10	1.24	3.53	2.29
Volvo	200 Series	82-93	13.75	22.74	3.13	2.75	3.55	0.80
Volvo	S60	01-06	12.12	18.32	2.22	1.09	4.53	3.45
Volkswagen	Passat	98-06	12.27	16.23	1.99	1.28	3.10	1.82
People Movers			16.83	21.39	3.60	3.47	3.73	0.26
Chrysler	Voyager	97-06	15.26	18.58	2.84	1.98	4.06	2.08
Ford	Spectron	86-90	21.84	17.78	3.88	1.93	7.81	5.87
Holden	Zafira TT	01-05	13.30	26.17	3.48	2.19	5.53	3.33

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Mitsubishi	Nimbus / Chariot / Spacewagon	85-91	18.20	19.99	3.64	2.89	4.58	1.69
Mitsubishi	Nimbus / Chariot	92-98	17.27	22.11	3.82	3.08	4.73	1.64
Mitsubishi	Nimbus	99-03	10.77	12.53	1.35	0.68	2.66	1.98
Mitsubishi	Starwagon / L300	83-86	22.71	25.71	5.84	5.32	6.41	1.09
Mitsubishi	Starwagon / Delica Starwagon	87-93	19.24	21.96	4.23	3.90	4.57	0.67
Mitsubishi	Starwagon / Delica Spacegear	95-98	18.68	20.03	3.74	3.18	4.40	1.22
Mitsubishi	Starwagon / Delica Spacegear	98-03	16.01	23.43	3.75	3.04	4.63	1.60
Kia	Carnival	99-06	13.60	16.96	2.31	1.70	3.13	1.43
Mazda	MPV	94-99	14.52	18.73	2.72	1.71	4.34	2.63
Mazda	MPV	00-06	9.97	24.98	2.49	1.34	4.64	3.30
Nissan	Prairie	84-86	19.11	20.82	3.98	3.06	5.17	2.12
Nissan	Serena	92-95	13.05	18.42	2.40	1.59	3.63	2.04
Honda	Odyssey	95-00	13.87	20.57	2.85	2.13	3.81	1.68
Honda	Odyssey	00-02	12.71	30.50	3.88	2.44	6.15	3.71
Toyota	Tarago	83-89	20.00	24.30	4.86	4.47	5.28	0.82
Toyota	Tarago / Previa / Estima	91-99	14.06	21.37	3.00	2.64	3.41	0.77
Toyota	Tarago / Previa / Estima	00-06	12.54	24.86	3.12	2.33	4.16	1.83
Toyota	Spacia	93-00	15.10	12.76	1.93	0.90	4.10	3.20
Toyota	Avensis	01-06	12.01	35.94	4.32	2.37	7.88	5.51
Small Cars			16.55	20.43	3.38	3.34	3.43	0.09
Alfa Romeo	33	83-92	15.10	23.28	3.52	2.73	4.53	1.80
Alfa Romeo	75	86-92	17.66	22.11	3.91	2.34	6.51	4.17
Alfa Romeo	90	85-88	12.12	41.36	5.01	2.64	9.51	6.86
Alfa Romeo	GTV	82-84	16.03	47.07	7.55	5.02	11.35	6.34
Alfa Romeo	Sprint	82-88	18.03	17.69	3.19	1.71	5.94	4.23
Alfa Romeo	Alfasud	82-84	21.06	30.39	6.40	3.87	10.58	6.71
Audi	A3/S3	97-04	15.50	17.16	2.66	1.66	4.26	2.60
Audi	A4	01-06	11.89	18.88	2.24	1.50	3.36	1.87

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Mini	Mini Cooper	02-06	12.57	14.78	1.86	0.91	3.77	2.86
Chrysler	Neon	96-99	14.10	16.13	2.27	1.59	3.25	1.66
Chrysler	Neon	00-02	17.04	25.45	4.34	2.31	8.15	5.84
Citroen	BX	86-94	6.21	15.43	0.96	0.46	2.01	1.56
Citroen	Xsara	00-05	20.07	17.88	3.59	1.45	8.87	7.42
Daihatsu	Applause	89-99	18.03	20.05	3.61	3.20	4.08	0.88
Daewoo	1.5i	94-95	22.83	19.19	4.38	2.69	7.13	4.43
Daewoo	Cielo	95-97	18.36	19.71	3.62	3.26	4.02	0.77
Daewoo	Nubira	97-03	15.47	19.95	3.09	2.69	3.54	0.84
Daewoo	Lanos	97-03	17.83	22.08	3.94	3.58	4.33	0.74
Daewoo	Lacetti	03-04	21.54	19.24	4.14	2.10	8.17	6.07
Ford	Laser	91-94	17.40	20.91	3.64	3.45	3.84	0.39
Ford	Laser	95-97	15.88	23.00	3.65	3.32	4.02	0.71
Ford	Escort	82-82	17.40	17.27	3.00	2.28	3.97	1.69
Ford	Capri	89-94	21.34	19.65	4.19	3.60	4.89	1.29
Ford	Focus LR	02-05	15.88	17.21	2.73	2.16	3.45	1.29
Ford	Focus LS	05-05	13.72	13.56	1.86	0.96	3.60	2.63
Fiat	Regata	84-88	14.33	28.18	4.04	2.68	6.08	3.40
Holden / Isuzu	Piazza	86-88	15.74	20.05	3.15	1.51	6.60	5.09
Holden	Gemini	82-84	19.10	21.90	4.18	3.88	4.51	0.63
Holden	Gemini RB	86-87	20.55	21.13	4.34	3.66	5.16	1.50
Holden	Astra TR	96-98	14.54	19.30	2.81	2.30	3.42	1.11
Holden	Astra TS	98-06	14.76	19.00	2.80	2.57	3.06	0.49
Holden	Astra AH	04-06	14.15	17.07	2.42	1.56	3.74	2.19
Holden	Viva JF	05-06	15.31	22.33	3.42	1.75	6.66	4.91
Hyundai	Excel	86-90	20.83	23.37	4.87	4.43	5.35	0.91
Hyundai	Excel	90-94	18.98	22.67	4.30	4.04	4.58	0.54
Hyundai	Excel / Accent	95-00	18.50	21.13	3.91	3.74	4.09	0.35
Hyundai	S Coupe	90-96	18.64	21.86	4.07	3.42	4.85	1.42
Hyundai	Coupe	96-00	16.84	21.72	3.66	2.92	4.59	1.67

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Hyundai	Accent	00-06	16.86	22.62	3.81	3.42	4.25	0.82
Mitsubishi	Lancer / Mirage CA	89-90	16.21	20.55	3.33	3.06	3.62	0.56
Mitsubishi	Lancer / Mirage CB	91-92	18.52	23.61	4.37	3.70	5.16	1.46
Mitsubishi	Lancer / Mirage CC	93-95	16.13	20.75	3.35	3.10	3.62	0.52
Mitsubishi	Lancer / Mirage CE	96-03	16.93	20.99	3.55	3.36	3.76	0.40
Mitsubishi	Cordia	83-87	20.45	24.92	5.10	4.54	5.72	1.18
Mitsubishi	Lancer CE / CG	02-03	29.07	23.08	6.71	3.86	11.67	7.82
Mitsubishi	Lancer CH	03-06	16.81	25.30	4.25	3.43	5.27	1.84
Kia	Rio	00-05	17.04	24.12	4.11	3.52	4.80	1.28
Kia	Spectra	01-04	19.92	21.05	4.19	2.69	6.53	3.84
Kia	Cerato	04-06	15.70	35.33	5.55	3.44	8.93	5.49
Ford / Mazda	Laser / 323 / Familia	82-88	19.78	21.84	4.32	4.19	4.46	0.27
Mazda	323 / Familia / Lantis	90-93	16.32	19.38	3.16	2.89	3.46	0.57
Mazda	323 / Familia / Lantis	95-98	16.13	20.46	3.30	2.98	3.66	0.68
Ford / Mazda	Laser / 323	99-03	15.50	18.38	2.85	2.57	3.16	0.60
Mazda	MX5 / Eunos Roadster	89-97	18.67	19.90	3.72	2.76	5.01	2.25
Mazda	MX5 / Eunos Roadster	98-05	13.45	12.61	1.70	0.99	2.90	1.91
Mazda	Eunos 30X / Presso / MX-3 / Autozam AZ-3	90-97	15.77	19.36	3.05	2.16	4.31	2.14
Mazda	3	03-06	14.42	16.48	2.38	1.87	3.03	1.16
Mercedes Benz	A-Class W168	98-04	15.06	17.11	2.58	1.57	4.24	2.67
Holden / Nissan	Astra / Pulsar / Langley	84-86	19.60	23.85	4.67	4.41	4.95	0.53
Holden / Nissan	Astra / Pulsar / Vector / Sentra	88-90	17.79	22.77	4.05	3.84	4.28	0.44
Nissan	Pulsar / Vector / Sentra	92-95	16.04	21.08	3.38	3.13	3.65	0.52
Nissan	Pulsar / Vector / Sentra	96-99	16.98	21.16	3.59	3.34	3.87	0.54
Nissan	Stanza	82-83	19.46	23.19	4.51	3.47	5.87	2.40
Nissan	Gazelle / Silvia	84-86	18.18	25.20	4.58	3.78	5.55	1.77
Nissan	Exa	83-86	25.52	26.06	6.65	5.32	8.31	2.98
Nissan	Exa	87-91	17.59	27.68	4.87	3.48	6.81	3.34
Nissan	NX/NX-R	91-96	19.87	25.93	5.15	4.26	6.23	1.97
Nissan	Pulsar	00-05	15.66	21.83	3.42	3.10	3.78	0.68

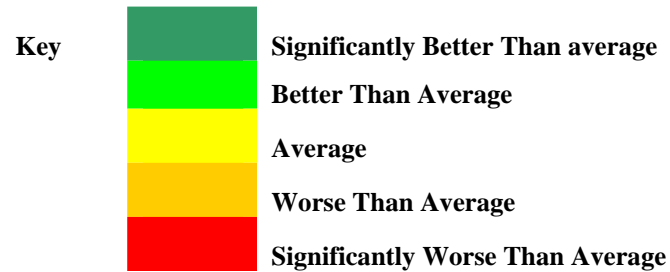
Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Honda	Civic	82-83	18.14	22.81	4.14	3.51	4.88	1.38
Honda	Civic / Ballade / Shuttle	84-87	19.51	23.97	4.68	4.26	5.13	0.87
Honda	Civic / Shuttle	88-91	17.60	21.49	3.78	3.48	4.12	0.64
Honda	Civic	92-95	16.62	20.74	3.45	3.15	3.77	0.62
Honda	Civic	96-00	16.48	18.29	3.01	2.71	3.36	0.65
Honda	CRX	87-91	20.18	24.66	4.98	4.05	6.12	2.07
Honda	CRX	92-98	16.21	27.09	4.39	3.09	6.24	3.15
Honda	S2000	99-06	9.94	12.39	1.23	0.46	3.26	2.80
Honda	Civic	01-05	13.17	22.01	2.90	2.34	3.59	1.24
Honda	Integra	86-88	17.62	21.60	3.80	3.16	4.58	1.41
Honda	Integra	90-92	17.88	22.00	3.93	3.22	4.80	1.57
Honda	Integra	93-01	15.16	19.81	3.00	2.44	3.69	1.25
Honda	Integra	02-06	17.88	20.20	3.61	2.21	5.91	3.71
Honda	Concerto	89-93	15.04	24.54	3.69	2.97	4.58	1.60
Peugeot	306	94-01	14.54	16.49	2.40	1.94	2.96	1.02
Peugeot	307	01-06	12.41	13.04	1.62	0.99	2.65	1.66
Proton	Wira	95-96	16.91	24.53	4.15	3.48	4.94	1.46
Renault	19	91-96	17.46	17.61	3.08	2.03	4.66	2.63
Renault	Scenic	01-05	14.32	16.10	2.31	1.17	4.54	3.37
Rover	Quintet	82-86	18.68	17.86	3.34	2.28	4.89	2.61
MG	MGF / MG TF	99-05	10.59	20.68	2.19	1.28	3.76	2.48
Subaru	Vortex	85-89	22.92	22.95	5.26	3.09	8.94	5.84
Subaru	Impreza	93-00	16.70	24.37	4.07	3.70	4.47	0.77
Subaru	Impreza	01-06	13.22	17.75	2.35	1.87	2.95	1.08
Suzuki	Baleno / Cultus Crescent	95-02	16.36	17.03	2.79	2.29	3.39	1.09
Suzuki	Liana	01-06	13.73	27.68	3.80	2.55	5.66	3.11
Toyota	Corolla	82-84	18.69	21.01	3.93	3.70	4.16	0.46
Toyota	Corolla	86-88	18.11	22.07	4.00	3.81	4.19	0.39
Toyota / Holden	Corolla / Nova	89-93	17.13	21.71	3.72	3.57	3.87	0.31
Toyota / Holden	Corolla / Nova	94-97	15.97	20.91	3.34	3.17	3.52	0.36

Make	Model of Car	Years of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 road users involved %	Lower 90% Confidence Limit	Lower 90% Confidence Limit	Width of Confidence Interval
Toyota	Corolla	98-01	15.38	19.13	2.94	2.67	3.24	0.57
Toyota	Corolla	02-06	15.32	19.69	3.02	2.73	3.33	0.59
Toyota	Tercel	83-88	19.39	22.00	4.27	3.29	5.52	2.23
Toyota	MR2	87-90	20.31	25.16	5.11	3.86	6.75	2.89
Toyota	MR2	91-00	16.99	23.47	3.99	2.78	5.73	2.95
Toyota	Paseo / Cynos	91-99	16.66	21.81	3.63	3.08	4.29	1.21
Toyota	Corolla 4WD Wagon	92-96	15.50	27.77	4.31	3.19	5.80	2.61
Volvo	300 Series	84-88	13.26	25.17	3.34	2.15	5.19	3.04
Volvo	S40/V40	97-04	14.32	18.03	2.58	1.86	3.58	1.72
Volkswagen	Golf	82-94	17.82	27.67	4.93	3.49	6.97	3.48
Volkswagen	Golf	95-98	14.64	22.33	3.27	2.58	4.13	1.55
Volkswagen	Golf / Bora	99-04	14.21	16.24	2.31	1.86	2.86	1.00
Volkswagen	New Beetle	00-06	12.54	10.22	1.28	0.66	2.47	1.81
Volkswagen	Golf / Jetta	04-06	11.77	7.94	0.93	0.43	2.03	1.60

**PRESENTATION OF TOTAL SECONDARY SAFETY,
CRASHWORTHINESS AND AGGRESSIVITY RATINGS FOR CONSUMER
INFORMATION**

TOTAL SECONDARY SAFETY, CRASHWORTHINESS AND AGGRESSIVITY

Victoria and New South Wales Data (1987-2006), South Australia Data (1995-2006),
Queensland, Western Australia and New Zealand Data (1991-2006)



Make	Model	Years of Manufacture	Total Secondary Safety Rating					Crashworthiness Rating					Aggressivity Rating						
Compact Four Wheel Drive Vehicles																			
Subaru	Forester	97-02																	
Honda	CR-V	97-01																	
Honda	CR-V	02-06																	
Kia	Sportage	98-03																	
Subaru	Forester	02-06																	
Suzuki	Grand Vitara	99-05																	
Ford / Mazda	Escape / Tribute	01-06																	
Toyota	RAV4	94-00																	
Daihatsu	Feroza / Rocky	89-97																	
Nissan	X-Trail	01-06																	
Toyota	RAV4	01-06																	

Make	Model	Years of Manufacture	Total Secondary Safety Rating					Crashworthiness Rating					Aggressivity Rating					
Holden	Cruze	02-06			Yellow													
Honda	HR-V	99-02			Yellow													
Lada	Niva	84-99			Yellow													
Daihatsu	Terios	97-05			Yellow							Orange					Yellow	
Suzuki	Vitara / Escudo	88-98				Orange						Orange					Yellow	
Holden / Suzuki	Drover / Sierra / Samurai / SJ410 / SJ413	82-99				Orange							Red				Yellow	
Daihatsu	Rocky / Rugger	85-98					Red						Red					
Large Four Wheel Drive Vehicles																		
Ford	Explorer	01-05	Green							Green								
Mercedes Benz	M-Class W163	98-05	Green															
Nissan	Patrol / Safari	98-04			Yellow					Green								Red
Nissan / Ford	Patrol / Maverick / Safari	88-97			Yellow					Green								Red
Toyota	Landcruiser	98-06			Yellow					Green								Red
Jeep	Grand Cherokee WJ/WG	99-05			Yellow					Green								
Land Rover	Range Rover	82-94			Yellow					Green								Red
Ford	Explorer	00-01			Yellow													
Jeep	Grand Cherokee ZG	96-99			Yellow													
Land Rover	Range Rover	95-02			Yellow													
Toyota	Landcruiser	90-97				Orange				Green								Red
Nissan	Patrol / Safari	82-87				Orange					Yellow							Red
Toyota	Landcruiser	82-89					Red					Orange						Red
Medium Four Wheel Drive Vehicles																		
Mitsubishi	Pajero NM / NP / NS	00-06	Green							Green							Yellow	

Make	Model	Years of Manufacture	Total Secondary Safety Rating				Crashworthiness Rating				Aggressivity Rating			
Jeep	Cherokee KJ	01-04	■					■						
Toyota	Landcruiser Prado	03-06		■				■						
Land Rover	Discovery	91-02		■				■					■	
Nissan	Pathfinder / Terrano / Regulus	95-05			■			■					■	
Mitsubishi	Pajero	92-99			■			■					■	
Toyota	Landcruiser Prado	96-03			■			■						■
Jeep	Cherokee XJ	96-00			■				■				■	
Mitsubishi	Challenger	98-06			■					■			■	
Holden / Isuzu	Jackaroo / Bighorn	92-97			■					■			■	
Holden / Isuzu	Jackaroo / Bighorn	82-91			■					■				■
Holden / Isuzu	Jackaroo / Bighorn	98-02			■					■				■
Nissan	Pathfinder / Terrano	88-94			■					■				■
Ford	Territory SX/SY	04-06			■					■				
Land Rover	Defender	92-06			■					■				
Daewoo / Ssangong	Musso	98-02			■					■				
Holden	Frontera / Mu	95-03			■					■				
Hyundai	Santa Fe	00-06			■					■				
Jeep	Wrangler	96-04			■					■				
Toyota	Kluger	03-06			■					■				
Mitsubishi	Pajero	82-90				■					■			■
Commercial - Ute														
Ford	Falcon Ute BA/BF	03-06		■				■					■	
Holden	Rodeo	03-06		■				■					■	
Holden	Commodore VY/VZ Ute	02-06			■			■					■	
Mitsubishi	Triton MK	96-06			■			■					■	

Make	Model	Years of Manufacture	Total Secondary Safety Rating				Crashworthiness Rating				Aggressivity Rating						
Nissan	Navara	97-05			Yellow			Dark Green								Orange	
Ford	Falcon Ute AU	00-02			Yellow			Dark Green									Red
Toyota	Hilux	98-02			Yellow			Dark Green									Red
Ford	Falcon Ute	96-99			Yellow				Green						Yellow		
Ford / Mazda	Courier / B-Series / Bounty	98-02			Yellow				Green						Yellow		
Ford	Ford F-Series	82-92			Yellow				Green								Red
Holden	Rodeo	99-02			Yellow				Green								Red
Toyota	Hilux	03-04			Yellow				Green								Red
Ford / Mazda	Courier / Bravo / Bounty	03-06			Yellow					Yellow					Yellow		
Holden	Commodore Ute VG/VP	90-93			Yellow					Yellow					Yellow		
Holden	Commodore VU Ute	00-02			Yellow					Yellow					Yellow		
Nissan	Navara	92-96			Yellow					Yellow						Orange	
Holden	Rodeo	96-98			Yellow					Yellow							Red
Nissan	Navara	86-91			Yellow					Yellow							Red
Holden / Isuzu	Rodeo / Pickup	86-88			Yellow					Yellow							
Toyota	Hilux	05-06			Yellow					Yellow							
Ford / Nissan	Falcon Ute / XFN Ute	82-95				Orange				Yellow						Orange	
Holden	Commodore Ute VR/VS	94-00				Orange				Yellow							Red
Toyota	4Runner/Hilux	89-97				Orange				Yellow							Red
Toyota	4Runner/Hilux	86-88				Orange					Orange						Red
Kia	Ceres	92-00				Orange					Red				Yellow		
Holden / Isuzu	Rodeo / Pickup	89-95					Red			Yellow							Red
Subaru	Brumby	82-92					Red				Red				Yellow		
Suzuki	Mighty Boy	85-88					Red				Red				Yellow		
Commercial - Van																	

Make	Model	Years of Manufacture	Total Secondary Safety Rating				Crashworthiness Rating				Aggressivity Rating			
	KL/KW													
Toyota	Camry	02-06												
Volvo	700/900 Series	84-92												
Toyota	Cressida / Mark II	89-93												
Ford	Fairlane & LTD AU	99-02												
Ford	Fairlane N & LTD D	88-94												
Holden / Toyota	Commodore VR/VS / Lexcen	93-97												
Mitsubishi	Magna TE/TF/TH/TJ / Verada KE/KF/KH/KJ / Diamante	96-03												
Mitsubishi	Magna TR/TS / Verada KR/KS / V3000 / Diamante	91-96												
Toyota	Camry	98-02												
Ford	Falcon EF/EL	94-98												
Hyundai	Grandeaur / XG	99-00												
Holden	Stateman/Caprice VR/VS	94-98												
Toyota	Avalon	00-05												
Ford	Falcon EB Series II / Falcon ED	Apr 92-94												
Honda	Legend	86-95												
Volvo	850/S70/V70/C70	92-04												
Jaguar	XJ6	87-94												
Ford	Fairlane N & LTD D	95-98												
Ford	Fairlane Z & LTD F	82-87												
Holden	Stateman/Caprice VQ	90-93												
Hyundai	Sonata	98-01												
Hyundai	Sonata	89-97												
Lexus	ES300 / Windom	92-01												

Make	Model	Years of Manufacture	Total Secondary Safety Rating				Crashworthiness Rating				Aggressivity Rating			
Mercedes Benz	S-Class W126	82-92												
Nissan	Maxima	90-94												
Nissan	Maxima / Cefiro	95-99												
Toyota	Crown / Cressida / Mark II	86-88												
Ford	Falcon EA / Falcon EB Series I	88-Mar 92												
Ford	Taurus	96-98												
Holden	Monaro	01-06												
Nissan	Maxima	00-02												
Nissan	300ZX / Fairlady Z	90-95												
BMW	7 Series E23	82-88												
Holden	Statesman/Caprice WK/WL	03-06												
Lexus	LS400 / Celsior	90-00												
Nissan	Maxima	03-06												
Mercedes Benz	S-Class C140	93-98												
Mazda	929 / Luce	82-90												
Holden / Toyota	Commodore VN/VP / Lexcen	89-93												
Mitsubishi	Magna TM/TN/TP / Sigma / V3000	85-90												
Nissan	Skyline	83-88												
Ford	Falcon XE/XF	82-88												
Holden	Commodore VB-VL	82-88												
Toyota	Supra	82-90												
Light Cars														
Mazda	121 Metro / Demio	97-02												
Holden	Barina XC	01-06												

Make	Model	Years of Manufacture	Total Secondary Safety Rating				Crashworthiness Rating				Aggressivity Rating			
Volkswagen	Polo	96-00												
Daihatsu	Sirion / Storia	98-04												
Toyota	Echo	99-05												
Honda	Jazz	02-06												
Daihatsu	Pyzar	97-01												
Suzuki	Ignis	00-02												
Ford	Ka	99-02												
Mazda	2	02-06												
Peugeot	206	99-06												
Peugeot	205	87-94												
Toyota	Yaris	05-06												
Mazda	121 / Autozam Review	94-96												
Holden	Barina SB	95-00												
Daewoo	Matiz	99-04												
Toyota	Starlet	96-99												
Daihatsu	Charade	88-92												
Ford	Festiva WD/WH/WF	94-01												
Ford / Mazda	Festiva WA / 121	87-90												
Holden / Suzuki	Barina / Swift / Cultus	89-99												
Daihatsu	Charade	93-00												
Nissan	Micra	95-97												
Holden / Suzuki	Barina / Swift / Cultus	86-88												
Daihatsu	Charade	82-86												
Honda	City	83-86												
Mitsubishi	Mirage / Colt	82-88												

Make	Model	Years of Manufacture	Total Secondary Safety Rating				Crashworthiness Rating				Aggressivity Rating			
Subaru	Sherpa / Fiori / 700 / Rex	89-92												
Daihatsu	Mira	90-96												
Hyundai	Getz	02-06												
Suzuki	Alto	85-00												
Medium Cars														
Mazda	6	02-06												
Subaru	Liberty / Legacy / Outback	99-03												
BMW	5 Series E39	96-03												
Saab	9000	86-97												
Saab	900/9-3	94-02												
Peugeot	406	96-04												
Honda	Accord Euro	03-06												
Mercedes Benz	C-Class W203	00-06												
BMW	3 Series E46	99-04												
Ford	Mondeo	95-01												
Volkswagen	Passat	98-06												
Honda	Accord	91-93												
Mercedes Benz	C-Class W202	95-00												
Audi	A4	95-01												
BMW	3 Series E36	92-98												
Holden	Vectra	97-03												
Honda	Accord	99-02												
Peugeot	505	82-93												
Subaru	Liberty / Legacy / Outback	94-98												
Ford / Mazda	Telstar / 626 / MX6 / Capella /	92-97												

Make	Model	Years of Manufacture	Total Secondary Safety Rating				Crashworthiness Rating				Aggressivity Rating				
Mazda	3	03-06	■				■							■	
Peugeot	306	94-01	■				■							■	
Volkswagen	Golf / Jetta	04-06	■				■								
Peugeot	307	01-06	■				■								
Subaru	Impreza	01-06	■				■					■			
Mazda	MX5 / Eunos Roadster	98-05	■									■			
Citroen	BX	86-94	■												
Volkswagen	New Beetle	00-06	■												
Ford / Mazda	Laser / 323	99-03		■				■				■			
Holden	Astra TS	98-06		■				■					■		
Toyota	Corolla	98-01		■				■					■		
Toyota	Corolla	02-06		■				■					■		
Ford	Focus LR	02-05		■				■						■	
Toyota / Holden	Corolla / Nova	94-97		■						■		■			
Honda	Civic	96-00		■						■		■			
Mazda	323 / Familia / Lantis	90-93		■						■		■			
Suzuki	Baleno / Cultus Crescent	95-02		■						■		■			
Chrysler	Neon	96-99		■						■		■			
Daewoo	Nubira	97-03		■						■		■			
Holden	Astra TR	96-98		■						■				■	
Audi	A4	01-06		■						■				■	
Holden	Astra AH	04-06			■			■							
Alfa Romeo	33	83-92			■					■		■			
Mazda	323 / Familia / Lantis	95-98			■					■		■			
Mitsubishi	Lancer / Mirage CA	89-90			■					■		■			

Make	Model	Years of Manufacture	Total Secondary Safety Rating					Crashworthiness Rating					Aggressivity Rating				
Toyota	MR2	87-90															
Ford / Mazda	Laser / 323 / Familia	82-88															
Holden / Nissan	Astra / Pulsar / Langley	84-86															
Honda	Civic / Ballade / Shuttle	84-87															
Hyundai	Excel	86-90															
Nissan	NX/NX-R	91-96															
Nissan	Exa	83-86															
Mitsubishi	Cordia	83-87															
			26	63	191	38	31	46	51	109	38	50	28	49	141	20	31
			349					294					269				

**CRASHWORTHINESS, INJURY RISK AND INJURY SEVERITY
ESTIMATES BY YEAR OF VEHICLE MANUFACTURE FOR THE
AUSTRALIAN VEHICLE FLEET**

INJURY RISK BY YEAR OF VEHICLE MANUFACTURE

Year of Manufacture	Coefficient of Car Year	Standard Error of Coefficient	Pr(Risk) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
AVERAGE	-1.6083		16.68			
1964	0.3779	0.0518	22.61	20.88	24.44	3.55
1965	0.4624	0.0548	24.12	22.21	26.14	3.93
1966	0.3069	0.049	21.39	19.82	23.05	3.23
1967	0.3785	0.0387	22.62	21.32	23.98	2.66
1968	0.339	0.0346	21.94	20.80	23.12	2.32
1969	0.3365	0.0309	21.89	20.88	22.95	2.07
1970	0.3281	0.0234	21.75	20.98	22.54	1.56
1971	0.2726	0.0211	20.82	20.15	21.51	1.36
1972	0.2971	0.0201	21.23	20.58	21.89	1.32
1973	0.3197	0.0184	21.61	21.00	22.23	1.22
1974	0.2766	0.0148	20.89	20.41	21.37	0.96
1975	0.1793	0.0147	19.32	18.88	19.78	0.90
1976	0.1732	0.0132	19.23	18.83	19.63	0.80
1977	0.1294	0.0135	18.56	18.16	18.96	0.80
1978	0.1089	0.0119	18.25	17.91	18.60	0.70
1979	0.0383	0.011	17.22	16.92	17.53	0.61
1980	0.0836	0.0106	17.88	17.57	18.18	0.61
1981	0.0638	0.00999	17.59	17.31	17.87	0.57
1982	0.0584	0.00938	17.51	17.25	17.78	0.53
1983	0.0654	0.00959	17.61	17.34	17.89	0.55
1984	0.00957	0.00868	16.82	16.58	17.05	0.48
1985	0.0189	0.00815	16.95	16.72	17.17	0.45
1986	-0.0439	0.00908	16.08	15.84	16.32	0.48
1987	-0.0679	0.00949	15.76	15.51	16.01	0.49
1988	-0.0853	0.00872	15.53	15.31	15.76	0.45
1989	-0.1227	0.0083	15.05	14.84	15.25	0.42
1990	-0.1133	0.00834	15.17	14.96	15.38	0.42
1991	-0.1267	0.00903	14.99	14.77	15.22	0.45
1992	-0.1539	0.00899	14.65	14.43	14.87	0.44
1993	-0.2004	0.00907	14.08	13.87	14.30	0.43
1994	-0.1904	0.00879	14.20	13.99	14.41	0.42
1995	-0.2155	0.00895	13.90	13.69	14.11	0.42
1996	-0.1861	0.00941	14.25	14.03	14.48	0.45
1997	-0.2044	0.00934	14.03	13.81	14.25	0.44
1998	-0.2039	0.00928	14.04	13.82	14.26	0.44
1999	-0.2299	0.0102	13.73	13.49	13.96	0.47
2000	-0.2798	0.011	13.15	12.90	13.39	0.49
2001	-0.3442	0.0125	12.43	12.16	12.70	0.53
2002	-0.3283	0.0135	12.60	12.31	12.90	0.58
2003	-0.3512	0.015	12.35	12.04	12.67	0.64
2004	-0.3759	0.0183	12.09	11.71	12.47	0.76
2005	-0.3382	0.0234	12.49	12.00	13.00	1.00
2006	-0.4621	0.0462	11.20	10.33	12.13	1.80

INJURY SEVERITY BY YEAR OF VEHICLE MANUFACTURE

Year of Manufacture	Coefficient of Car Year	Standard Error of Coefficient	Pr(Severity) %	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
AVERAGE	-1.2205		22.78			
1964	0.2651	0.0866	27.78	24.51	31.31	6.80
1965	0.00859	0.0989	22.94	19.69	26.54	6.85
1966	0.1255	0.0829	25.07	22.14	28.24	6.10
1967	0.1546	0.066	25.62	23.23	28.16	4.93
1968	0.1109	0.0598	24.79	22.67	27.04	4.37
1969	0.3397	0.0507	29.30	27.29	31.40	4.12
1970	0.2271	0.0394	27.02	25.53	28.57	3.05
1971	0.2035	0.0363	26.56	25.20	27.97	2.78
1972	0.2097	0.0345	26.68	25.38	28.03	2.65
1973	0.2254	0.0312	26.99	25.80	28.21	2.41
1974	0.1096	0.0265	24.77	23.82	25.75	1.94
1975	0.1701	0.0258	25.91	24.96	26.90	1.94
1976	0.0812	0.0241	24.24	23.39	25.12	1.74
1977	0.103	0.0247	24.65	23.76	25.56	1.80
1978	0.0565	0.0221	23.79	23.02	24.59	1.57
1979	0.0782	0.0205	24.19	23.46	24.93	1.47
1980	0.0334	0.0202	23.38	22.68	24.09	1.42
1981	0.0448	0.0192	23.58	22.91	24.27	1.36
1982	0.0675	0.018	23.99	23.36	24.64	1.29
1983	0.0205	0.0187	23.15	22.50	23.81	1.30
1984	0.0149	0.0171	23.05	22.46	23.65	1.19
1985	0.0186	0.0162	23.11	22.55	23.68	1.13
1986	0.00543	0.018	22.88	22.26	23.51	1.25
1987	0.0139	0.019	23.03	22.38	23.70	1.32
1988	0.00418	0.0177	22.86	22.25	23.48	1.22
1989	-0.0108	0.0172	22.60	22.01	23.19	1.18
1990	-0.0349	0.0175	22.18	21.59	22.77	1.18
1991	-0.0388	0.0194	22.11	21.46	22.77	1.31
1992	-0.0782	0.0198	21.44	20.79	22.10	1.31
1993	-0.0505	0.02	21.91	21.25	22.59	1.34
1994	-0.1101	0.0197	20.91	20.27	21.55	1.28
1995	-0.1335	0.0203	20.52	19.88	21.18	1.30
1996	-0.1453	0.0215	20.33	19.66	21.02	1.37
1997	-0.1185	0.0215	20.77	20.08	21.47	1.39
1998	-0.1853	0.0223	19.69	19.01	20.39	1.38
1999	-0.1858	0.0243	19.68	18.94	20.45	1.51
2000	-0.2148	0.0265	19.23	18.43	20.05	1.61
2001	-0.174	0.0286	19.87	18.99	20.78	1.79
2002	-0.2492	0.0322	18.70	17.76	19.68	1.92
2003	-0.3264	0.0366	17.55	16.54	18.62	2.08
2004	-0.2605	0.0442	18.53	17.26	19.87	2.62
2005	-0.2392	0.0576	18.85	17.18	20.64	3.45
2006	-0.1362	0.1222	20.48	16.85	24.65	7.80

CRASHWORTHINESS BY YEAR OF VEHICLE MANUFACTURE

Year of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 drivers involved	Overall rank order	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
AVERAGE	16.68	22.78	3.80				
1964	22.61	27.78	6.28	42	5.43	7.27	1.84
1965	24.12	22.94	5.53	37	4.67	6.56	1.89
1966	21.39	25.07	5.36	34	4.65	6.19	1.54
1967	22.62	25.62	5.80	39	5.18	6.49	1.31
1968	21.94	24.79	5.44	35	4.91	6.03	1.12
1969	21.89	29.30	6.42	43	5.89	6.98	1.09
1970	21.75	27.02	5.88	41	5.50	6.28	0.79
1971	20.82	26.56	5.53	36	5.20	5.88	0.68
1972	21.23	26.68	5.66	38	5.34	6.01	0.66
1973	21.61	26.99	5.83	40	5.53	6.15	0.62
1974	20.89	24.77	5.17	33	4.94	5.41	0.47
1975	19.32	25.91	5.01	32	4.79	5.23	0.44
1976	19.23	24.24	4.66	31	4.47	4.86	0.39
1977	18.56	24.65	4.57	30	4.38	4.77	0.39
1978	18.25	23.79	4.34	29	4.18	4.51	0.33
1979	17.22	24.19	4.17	26	4.02	4.32	0.29
1980	17.88	23.38	4.18	27	4.04	4.33	0.29
1981	17.59	23.58	4.15	25	4.01	4.29	0.27
1982	17.51	23.99	4.20	28	4.07	4.33	0.26
1983	17.61	23.15	4.08	24	3.95	4.21	0.26
1984	16.82	23.05	3.88	22	3.76	3.99	0.23
1985	16.95	23.11	3.92	23	3.81	4.03	0.22
1986	16.08	22.88	3.68	21	3.57	3.80	0.23
1987	15.76	23.03	3.63	20	3.51	3.75	0.24
1988	15.53	22.86	3.55	19	3.44	3.66	0.22
1989	15.05	22.60	3.40	18	3.30	3.50	0.20
1990	15.17	22.18	3.36	17	3.26	3.47	0.20
1991	14.99	22.11	3.32	16	3.21	3.43	0.22
1992	14.65	21.44	3.14	15	3.04	3.25	0.21
1993	14.08	21.91	3.08	14	2.98	3.19	0.21
1994	14.20	20.91	2.97	13	2.87	3.07	0.20
1995	13.90	20.52	2.85	10	2.75	2.95	0.20
1996	14.25	20.33	2.90	11	2.79	3.01	0.22
1997	14.03	20.77	2.91	12	2.81	3.02	0.22
1998	14.04	19.69	2.76	9	2.66	2.87	0.21
1999	13.73	19.68	2.70	8	2.59	2.82	0.23
2000	13.15	19.23	2.53	7	2.41	2.65	0.23
2001	12.43	19.87	2.47	6	2.35	2.60	0.25
2002	12.60	18.70	2.36	5	2.23	2.49	0.27
2003	12.35	17.55	2.17	1	2.03	2.31	0.28
2004	12.09	18.53	2.24	2	2.07	2.42	0.35
2005	12.49	18.85	2.36	4	2.13	2.60	0.47
2006	11.20	20.48	2.29	3	1.87	2.82	0.96

**CRASHWORTHINESS, INJURY RISK AND INJURY SEVERITY
ESTIMATES BY YEAR OF VEHICLE MANUFACTURE BY MARKET
GROUP FOR THE AUSTRALIAN VEHICLE FLEET**

CRASHWORTHINESS BY YEAR OF VEHICLE MANUFACTURE BY MARKET GROUP

Year of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
Compact Four Wheel Drive Vehicles						
1982	29.18	12.63	3.69	2.95	4.62	1.67
1983	27.19	27.46	7.47	6.65	8.38	1.74
1984	27.07	25.28	6.84	6.34	7.39	1.05
1985	29.10	18.61	5.42	5.13	5.72	0.59
1986	26.00	19.66	5.11	4.42	5.92	1.50
1987	25.94	29.03	7.53	6.78	8.37	1.59
1988	23.68	17.16	4.06	3.65	4.53	0.88
1989	23.25	21.96	5.11	4.90	5.33	0.43
1990	21.13	20.16	4.26	4.09	4.43	0.34
1991	22.15	20.98	4.65	4.43	4.87	0.44
1992	21.86	21.66	4.73	4.51	4.98	0.47
1993	19.92	26.55	5.29	5.03	5.56	0.53
1994	17.58	19.09	3.36	3.17	3.56	0.39
1995	18.03	14.02	2.53	2.27	2.81	0.54
1996	17.56	17.64	3.10	2.88	3.33	0.44
1997	15.84	17.93	2.84	2.70	2.98	0.28
1998	15.62	20.64	3.23	3.12	3.33	0.21
1999	13.82	19.43	2.69	2.59	2.78	0.19
2000	14.86	19.12	2.84	2.73	2.95	0.22
2001	12.37	20.41	2.52	2.42	2.63	0.21
2002	14.75	13.88	2.05	1.96	2.13	0.17
2003	14.15	21.10	2.99	2.88	3.09	0.21
2004	15.17	24.17	3.67	3.52	3.82	0.29
2005	17.38	18.90	3.29	3.03	3.56	0.52
2006	10.48	32.37	3.39	2.52	4.56	2.04
Medium Four Wheel Drive Vehicles						
1982	29.35	30.79	9.04	6.86	11.91	5.04
1983	19.53	31.71	6.19	4.99	7.68	2.69
1984	18.95	14.34	2.72	2.11	3.49	1.38
1985	19.16	30.33	5.81	5.40	6.25	0.85
1986	14.41	10.99	1.58	1.05	2.39	1.33
1987	16.71	27.67	4.62	3.72	5.75	2.03
1988	15.96	39.43	6.29	5.69	6.96	1.27
1989	16.47	14.90	2.45	2.22	2.71	0.48
1990	15.06	17.98	2.71	2.45	2.99	0.55
1991	19.86	17.39	3.45	2.83	4.22	1.39
1992	12.54	15.15	1.90	1.74	2.07	0.33
1993	12.26	21.88	2.68	2.53	2.84	0.32
1994	11.25	18.66	2.10	1.93	2.29	0.36
1995	11.48	22.57	2.59	2.42	2.78	0.36
1996	11.96	21.86	2.61	2.44	2.80	0.36

Year of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
1997	12.29	23.87	2.93	2.81	3.06	0.25
1998	14.07	19.61	2.76	2.58	2.95	0.37
1999	12.26	20.00	2.45	2.27	2.65	0.38
2000	11.24	13.65	1.53	1.32	1.78	0.45
2001	9.91	21.12	2.09	1.93	2.26	0.33
2002	10.37	21.55	2.24	2.04	2.45	0.41
2003	9.87	10.62	1.05	0.84	1.31	0.47
2004	8.97	17.75	1.59	1.45	1.75	0.31
2005	9.16	21.07	1.93	1.60	2.33	0.74
2006	13.03	15.09	1.97	1.32	2.94	1.62

Large Four Wheel Drive Vehicles

1982	15.52	21.63	3.36	3.19	3.53	0.33
1983	14.94	25.62	3.83	3.65	4.01	0.36
1984	13.88	21.57	2.99	2.88	3.11	0.23
1985	16.25	27.82	4.52	4.43	4.62	0.19
1986	12.62	21.19	2.67	2.51	2.85	0.34
1987	16.12	22.76	3.67	3.46	3.89	0.43
1988	13.52	27.20	3.68	3.58	3.78	0.20
1989	12.75	22.90	2.92	2.85	2.99	0.14
1990	12.42	18.25	2.27	2.20	2.34	0.13
1991	11.33	20.80	2.36	2.28	2.44	0.16
1992	11.97	25.13	3.01	2.93	3.09	0.15
1993	11.37	22.69	2.58	2.50	2.66	0.16
1994	12.00	21.45	2.57	2.50	2.65	0.15
1995	12.21	24.09	2.94	2.85	3.04	0.19
1996	12.06	28.19	3.40	3.31	3.49	0.18
1997	11.03	21.14	2.33	2.25	2.41	0.16
1998	12.36	18.48	2.28	2.22	2.35	0.14
1999	12.12	22.38	2.71	2.63	2.80	0.17
2000	10.45	22.03	2.30	2.19	2.42	0.23
2001	9.21	21.66	1.99	1.80	2.21	0.42
2002	10.41	13.94	1.45	1.26	1.67	0.42
2003	10.40	15.65	1.63	1.42	1.87	0.45
2004	9.07	17.32	1.57	1.28	1.93	0.65
2005	8.74	15.27	1.33	0.94	1.89	0.95

Commercial Vehicles - Vans

1982	23.76	24.40	5.80	5.59	6.01	0.42
1983	24.58	27.18	6.68	6.48	6.89	0.42
1984	22.94	24.13	5.54	5.39	5.68	0.29
1985	20.94	22.11	4.63	4.49	4.77	0.28
1986	20.83	21.01	4.38	4.24	4.52	0.28
1987	20.66	17.59	3.63	3.45	3.82	0.37
1988	20.67	28.78	5.95	5.79	6.11	0.32
1989	19.81	24.03	4.76	4.56	4.97	0.41
1990	18.75	19.64	3.68	3.49	3.88	0.39
1991	16.00	26.40	4.22	3.98	4.48	0.50

Year of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
1992	17.58	20.70	3.64	3.42	3.87	0.46
1993	15.27	24.11	3.68	3.44	3.94	0.50
1994	16.95	23.43	3.97	3.76	4.19	0.43
1995	16.63	22.65	3.77	3.59	3.95	0.37
1996	15.14	15.08	2.28	2.09	2.50	0.41
1997	15.70	26.02	4.08	3.85	4.33	0.47
1998	16.09	15.56	2.50	2.31	2.71	0.40
1999	14.64	18.75	2.75	2.55	2.96	0.41
2000	14.00	20.05	2.81	2.60	3.03	0.43
2001	12.40	21.86	2.71	2.47	2.98	0.51
2002	13.66	15.01	2.05	1.81	2.32	0.51
2003	10.25	15.59	1.60	1.35	1.89	0.54
2004	12.09	13.47	1.63	1.24	2.14	0.91
2005	13.07	27.64	3.61	2.81	4.65	1.84

Commercial Vehicles - Utes

1982	18.37	24.18	4.44	4.36	4.52	0.16
1983	16.50	25.86	4.27	4.17	4.36	0.19
1984	17.36	22.49	3.90	3.85	3.95	0.10
1985	19.65	25.07	4.93	4.88	4.98	0.10
1986	17.77	21.93	3.90	3.84	3.95	0.11
1987	17.59	20.25	3.56	3.49	3.64	0.15
1988	17.19	24.88	4.28	4.23	4.33	0.10
1989	16.68	21.91	3.66	3.62	3.69	0.07
1990	16.32	21.48	3.51	3.47	3.54	0.07
1991	15.46	22.99	3.56	3.51	3.60	0.08
1992	16.43	21.65	3.56	3.52	3.59	0.08
1993	15.24	25.59	3.90	3.86	3.94	0.08
1994	15.06	22.66	3.41	3.38	3.45	0.07
1995	14.51	21.10	3.06	3.03	3.09	0.07
1996	15.11	21.89	3.31	3.27	3.34	0.08
1997	15.30	21.60	3.31	3.27	3.34	0.07
1998	14.47	20.22	2.93	2.89	2.96	0.07
1999	14.58	21.71	3.17	3.12	3.21	0.09
2000	13.38	18.51	2.48	2.43	2.52	0.09
2001	12.60	19.75	2.49	2.44	2.54	0.10
2002	11.50	18.05	2.08	2.03	2.13	0.10
2003	11.70	18.05	2.11	2.06	2.16	0.10
2004	12.68	22.41	2.84	2.77	2.91	0.14
2005	13.45	21.22	2.85	2.70	3.01	0.31
2006	12.41	23.72	2.94	2.35	3.69	1.35

Large Cars

1982	17.76	24.46	4.34	4.33	4.36	0.03
1983	18.21	24.04	4.38	4.36	4.39	0.03
1984	17.90	22.89	4.10	4.09	4.11	0.02
1985	17.58	22.53	3.96	3.95	3.97	0.02
1986	17.29	22.19	3.84	3.83	3.84	0.02

Year of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
1987	17.02	22.74	3.87	3.86	3.88	0.02
1988	16.40	22.88	3.75	3.75	3.76	0.01
1989	16.15	22.67	3.66	3.66	3.67	0.01
1990	16.66	22.17	3.69	3.69	3.70	0.01
1991	16.20	21.45	3.48	3.47	3.48	0.02
1992	15.81	20.20	3.19	3.19	3.20	0.01
1993	14.75	20.67	3.05	3.04	3.06	0.01
1994	15.02	19.97	3.00	2.99	3.01	0.01
1995	14.83	20.04	2.97	2.97	2.98	0.01
1996	15.19	18.41	2.80	2.79	2.80	0.01
1997	14.54	19.46	2.83	2.82	2.84	0.02
1998	14.79	18.21	2.69	2.69	2.70	0.02
1999	14.66	18.72	2.74	2.73	2.75	0.02
2000	14.20	18.19	2.58	2.57	2.59	0.02
2001	14.30	19.35	2.77	2.75	2.78	0.03
2002	14.20	18.36	2.61	2.59	2.62	0.04
2003	14.08	14.59	2.05	2.03	2.08	0.04
2004	13.91	14.77	2.05	2.02	2.09	0.07
2005	13.40	15.26	2.04	1.99	2.10	0.12
2006	10.72	16.93	1.81	1.51	2.17	0.66

Medium Cars

1982	20.21	22.79	4.60	4.59	4.62	0.02
1983	19.62	21.37	4.19	4.18	4.21	0.02
1984	19.50	22.34	4.36	4.34	4.37	0.02
1985	19.69	21.45	4.22	4.21	4.24	0.03
1986	18.71	22.88	4.28	4.26	4.30	0.04
1987	18.52	20.84	3.86	3.84	3.88	0.05
1988	17.85	22.48	4.01	4.00	4.03	0.03
1989	17.79	22.58	4.02	4.01	4.03	0.02
1990	16.86	21.49	3.62	3.61	3.63	0.02
1991	17.58	21.64	3.80	3.79	3.82	0.03
1992	15.85	20.32	3.22	3.20	3.24	0.03
1993	15.73	20.49	3.22	3.20	3.24	0.04
1994	15.14	20.66	3.13	3.11	3.14	0.03
1995	15.03	19.38	2.91	2.89	2.93	0.04
1996	15.19	20.32	3.09	3.06	3.11	0.05
1997	15.08	19.76	2.98	2.95	3.01	0.05
1998	14.85	17.30	2.57	2.53	2.61	0.08
1999	15.14	18.02	2.73	2.68	2.77	0.09
2000	14.26	19.37	2.76	2.71	2.81	0.10
2001	14.20	18.98	2.69	2.64	2.75	0.12
2002	13.95	17.84	2.49	2.41	2.57	0.17
2003	12.83	20.00	2.57	2.47	2.66	0.19
2004	14.01	18.53	2.60	2.46	2.74	0.28
2005	17.17	12.56	2.16	1.95	2.38	0.43

People Movers

Year of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
1982	25.55	32.98	8.43	8.13	8.74	0.61
1983	23.43	24.30	5.69	5.58	5.81	0.23
1984	23.34	26.52	6.19	6.09	6.29	0.21
1985	23.81	22.78	5.42	5.31	5.54	0.23
1986	23.72	22.73	5.39	5.17	5.62	0.45
1987	21.07	19.30	4.07	3.69	4.48	0.79
1988	19.34	17.47	3.38	3.19	3.58	0.39
1989	20.61	28.34	5.84	5.71	5.97	0.26
1990	17.55	23.88	4.19	4.02	4.38	0.36
1991	18.31	21.35	3.91	3.73	4.10	0.37
1992	17.63	16.46	2.90	2.74	3.08	0.34
1993	15.87	24.26	3.85	3.68	4.03	0.35
1994	15.99	21.95	3.51	3.32	3.72	0.40
1995	13.36	22.72	3.04	2.80	3.29	0.48
1996	13.80	17.44	2.41	2.15	2.70	0.55
1997	13.54	18.69	2.53	2.28	2.81	0.53
1998	13.73	13.70	1.88	1.61	2.19	0.58
1999	13.92	17.00	2.37	2.11	2.66	0.55
2000	12.22	22.06	2.70	2.38	3.05	0.67
2001	13.09	7.83	1.02	0.69	1.52	0.83
2002	11.49	20.52	2.36	1.96	2.83	0.87
2003	10.61	27.47	2.91	2.44	3.48	1.03

Light Cars

1982	26.95	26.35	7.10	6.99	7.22	0.23
1983	28.18	20.99	5.91	5.83	6.00	0.16
1984	24.97	20.55	5.13	5.07	5.19	0.12
1985	26.17	26.88	7.03	6.99	7.08	0.09
1986	25.06	25.61	6.42	6.35	6.49	0.14
1987	25.04	28.22	7.07	6.99	7.15	0.16
1988	25.18	20.29	5.11	5.03	5.18	0.15
1989	22.79	22.87	5.21	5.17	5.25	0.08
1990	24.30	24.50	5.95	5.91	6.00	0.09
1991	22.90	23.72	5.43	5.40	5.47	0.07
1992	22.95	24.94	5.72	5.69	5.75	0.06
1993	22.76	23.69	5.39	5.36	5.42	0.06
1994	22.07	22.17	4.89	4.86	4.92	0.06
1995	21.65	22.17	4.80	4.78	4.83	0.05
1996	21.45	22.12	4.74	4.71	4.78	0.07
1997	20.81	21.97	4.57	4.54	4.60	0.06
1998	20.77	22.61	4.70	4.66	4.73	0.06
1999	20.88	20.74	4.33	4.28	4.38	0.10
2000	19.93	20.29	4.04	3.99	4.10	0.12
2001	18.53	21.83	4.04	3.95	4.15	0.20
2002	17.99	19.07	3.43	3.33	3.53	0.21
2003	18.69	20.90	3.91	3.81	4.00	0.18
2004	18.45	18.96	3.50	3.39	3.60	0.21
2005	16.72	23.76	3.97	3.84	4.11	0.28

Year of Manufacture	Pr(Risk) %	Pr(Severity) %	Serious injury rate per 100 drivers involved	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Width of Confidence Interval
2006	15.72	26.48	4.16	3.75	4.63	0.88

Small Cars

1982	22.72	23.78	5.40	5.39	5.42	0.03
1983	23.36	22.44	5.24	5.22	5.26	0.03
1984	21.91	22.24	4.87	4.86	4.89	0.03
1985	22.72	22.70	5.16	5.14	5.17	0.03
1986	21.47	21.76	4.67	4.66	4.69	0.03
1987	21.21	22.87	4.85	4.83	4.87	0.04
1988	20.92	22.65	4.74	4.72	4.75	0.03
1989	19.89	23.07	4.59	4.58	4.60	0.02
1990	19.35	22.21	4.30	4.29	4.31	0.02
1991	19.41	21.72	4.22	4.20	4.23	0.02
1992	19.10	21.29	4.07	4.06	4.08	0.02
1993	18.72	21.28	3.98	3.97	3.99	0.02
1994	19.20	19.95	3.83	3.82	3.84	0.02
1995	18.21	21.33	3.88	3.87	3.90	0.02
1996	19.28	20.41	3.93	3.92	3.95	0.03
1997	18.84	22.43	4.23	4.22	4.24	0.02
1998	18.51	20.62	3.82	3.81	3.83	0.02
1999	17.97	19.74	3.55	3.53	3.56	0.03
2000	17.39	20.04	3.48	3.47	3.50	0.03
2001	16.26	19.47	3.17	3.15	3.18	0.03
2002	16.82	20.27	3.41	3.39	3.43	0.04
2003	16.83	18.26	3.07	3.05	3.10	0.06
2004	16.16	17.82	2.88	2.84	2.92	0.09
2005	16.11	21.22	3.42	3.36	3.48	0.13
2006	14.00	13.98	1.96	1.71	2.24	0.52