

Differences between CTP Insurance Statistics and Crash Statistics

Ross McColl¹ (Presenter)
¹representing the Motor Accident Commission

Biography

Mr McColl has worked in the road safety field for over 20 years, initially as a researcher and research manager for the South Australia Police. He currently is a road safety consultant advising the Motor Accident Commission in South Australia.

Abstract

Databases are maintained for the claims made under the Compulsory Third Party (CTP) insurance schemes for injuries received in motor vehicle crashes. The statistics that can be presented from the databases show some similarities to and some differences from those presented from the traditional crash databases maintained by Transport Authorities.

This paper presents statistics on CTP claims (and crashes that generated these claims) as maintained by the Motor Accident Commission in South Australia, and compares these with casualty crash statistics from the Crash Register maintained by Transport SA. Comment is made on the differences, and an attempt made to explain these differences. The paper also makes comment on why it is important to produce CTP statistics and why they may generate different concerns and promote different road safety interventions than those identified by the traditional databases.

1. COMPULSORY THIRD PARTY INSURANCE

Compulsory Third Party (CTP) insurance compensates victims for injuries received as the result of motor vehicle crashes. Payments may be for medical related expenses and as compensation for pain and suffering and loss of earning capacity. South Australia, along with the majority of States in Australia, has a 'common law' scheme for CTP insurance. Here the fault of the road user is taken into consideration in making payment for the injuries. The amount of the claim can be reduced if a road user is partly at fault, but the most critical issue is that a driver cannot claim against him/herself. If for example a car is involved in a single vehicle crash, the driver cannot normally make a claim, however any injured passenger may claim.

Each State and Territory in Australia has slightly different interpretations of the 'common law' scheme, with varying limitations on payouts and other differences. Victoria and Tasmania have 'no fault' schemes, which allow for payments of claims for any person injured in a crash. The Northern Territory has a 'no fault' scheme for NT residents.

2. THE DATABASES

This report presents statistics gathered from the CTP database and the Crash Register in South Australia. The CTP database is maintained by the Motor Accident Commission and contains details of claims and crashes. A person injured in a crash will normally contact the CTP claims manager who will advise of whether a claim can be made, and if so, relevant forms are forwarded for completion. The returned forms are then keyed to computer database. For this analysis the statistics refer to crashes in the period 1998 to 2002 for which a CTP claim has been made.

The Crash Register is the database of road crashes maintained by Transport SA. It records details of crashes reported to Police where a person has been injured (ie treated by a doctor or at hospital) or killed or where the total damage to property is above \$1000. 'Casualties' are persons injured or killed. For this report, statistics refer to reported casualties from crashes in the years 1998 to 2002.

CTP records also include a reference to the Police crash report number, hence the CTP database can be linked to the Crash Register. This allows for increased detail concerning the circumstances of a crash that generated a claim. For the years 1998 to 2002, 84% of claims can be linked to a record in the Crash Register.

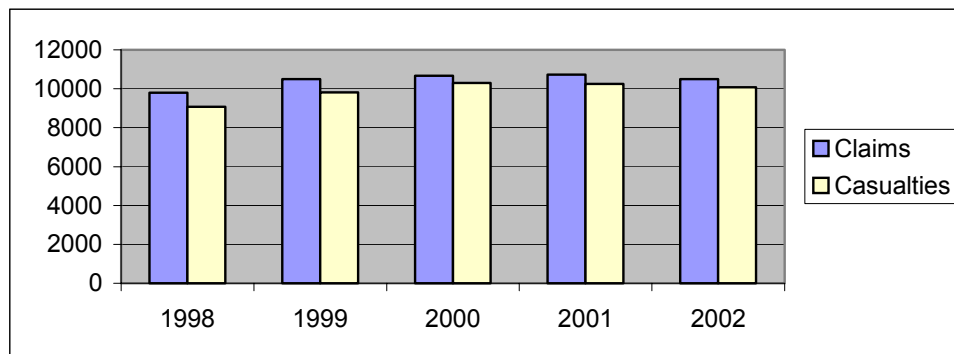
3. CLAIMS, INJURIES AND FATALITIES

The statistics that follow are for CTP claims, as derived from the CTP database and casualties and fatalities as derived from the Crash Register. The main consideration is the differences between the casualty and claim statistics, however fatality statistics have been included because this often adds interesting information. The report covers issues of 'road user type', 'injury type', 'age' and 'gender' of the victim, and the 'crash type', 'time' and 'day' of the crash.

3.1 Claims and Casualties

The following graph presents the claim and casualty statistics for the years 1998 to 2002.

Figure 1 CTP Claims arising from Crashes (from CTP database) and Casualties (from the Crash Register) in South Australia for Years 1998 to 2002

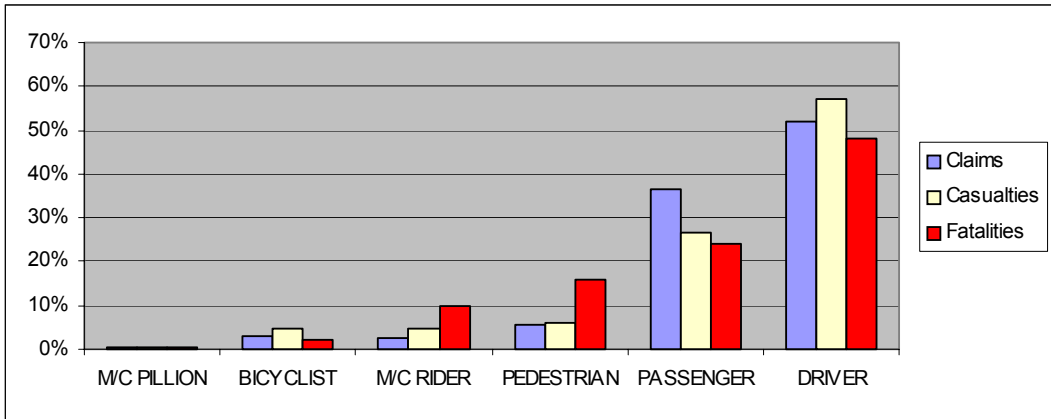


This graph shows the close association between claims and casualties, with claims generally being about 5% higher than casualties. However, 16% of claims did not link to a Crash Register record (usually because the crash was not reported to Police through late identification of injury, oversight or perhaps for other reasons) and a further 25% were reported as property damage only crashes. Approximately 45% of casualties recorded in the Crash Register did not have an associated claim (because of the 'common law' issue or clerical matching problems). The net result is the impression that claim statistics are very similar to casualty statistics, when in fact there are substantial differences.

3.2 Road User Type

The remainder of the graphs present the statistics as percentages, thus allowing for assessment of the over/under representation of casualties or claims in any category.

Figure 2 Claims, Casualties and Fatalities, 1998 to 2002, South Australia, by Road User Type (as percentages of total claims, casualties or fatalities)

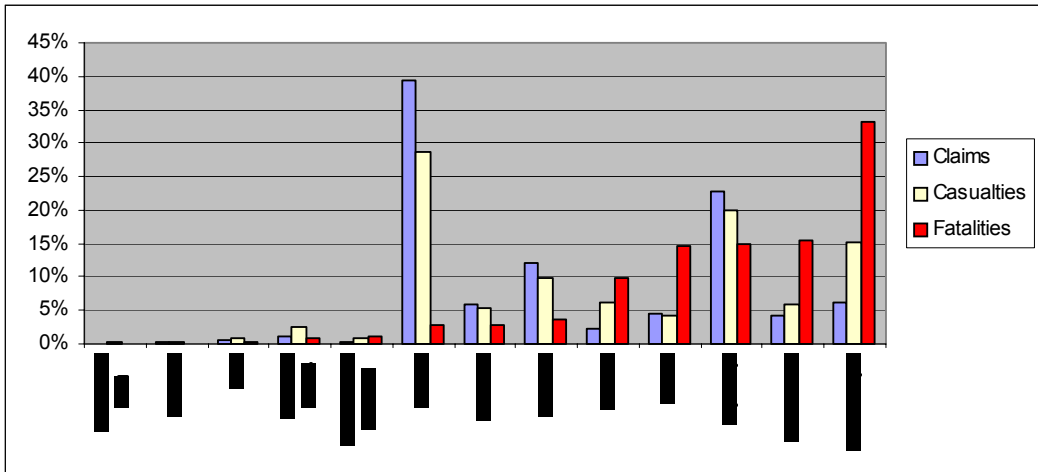


In Figure 2, it can be seen that there is an over-representation of casualties over claims for drivers. This is probably most associated with the 'common law' issue, with drivers unable to make a claim if solely at fault for the crash.

3.3 Crash Type

(This required linkage between the databases to gather detail of the crash type from the Crash Register for a CTP claim record.) The following graph presents the statistics according to the categorisation of the crash type as used by Transport SA.

Figure 3 Claims, Casualties and Fatalities, 1998 to 2002, South Australia, by Crash Type (as percentages of total claims, casualties or fatalities)



The statistics are sorted according to the fatality percentages. This shows that 'Hit Fixed Object' crashes generate the most deaths. The 'Rear End' crashes generate relatively few fatalities, but they generate large percentages of casualties and claims.

It is also notable that for 'Rear End' crashes there is a large over-representation of claims over casualties. This is probably due to the late identification of injuries. With 'Rear End' crashes, there are frequently 'whiplash' injuries that may not at first be obvious. Remembering that percentages are presented in the graphs, the under counting of the large group of 'Rear End' crashes leads to relative over counting of the other crash types. It is however notable that 'Right Angle' and 'Right Turn' crashes also show over-representation of claims over casualties which is probably also due to late identification of injuries. The issue of under counting (and relative over counting) of various crash types is a failing of the Crash Register that may exist for Crash databases in all States.

Crash types that are single vehicle crashes will also generate fewer claims because relatively more 'at fault' drivers will be involved. This will also influence the percentages and the under/over representation.

3.4 Injury Type

(This required linkage between the databases to gather injury detail from the CTP database, for a Crash Register record.)

Figure 4 Claims and Casualties, 1998 to 2002, South Australia, by Injury Type (as percentages of total claims or casualties)

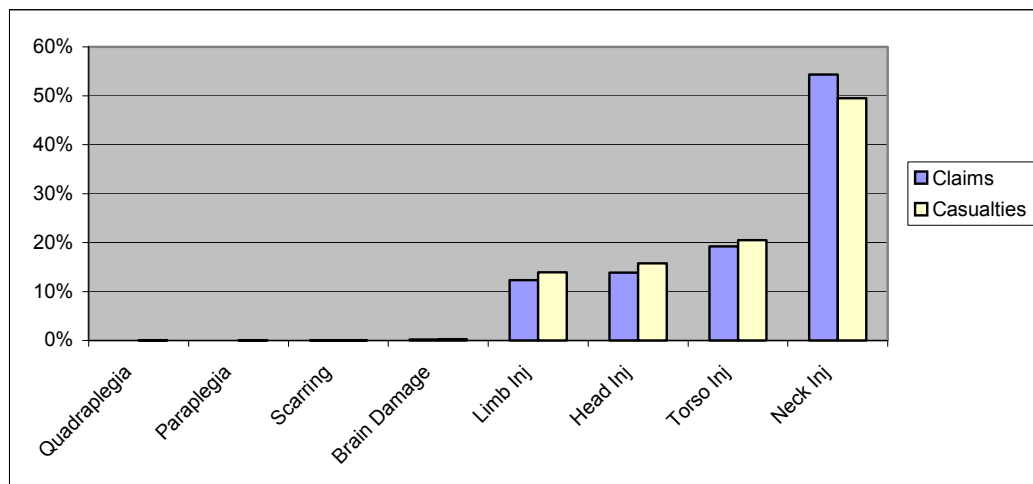


Figure 4 highlights the high percentage of neck injuries generated in road crashes. The over-representation of claims over casualties for neck injuries is probably due to the late identification of neck injuries.

Figures 3 and 4 have been produced through linkage between databases. Where linkage is not 100%, as in this case, the potential for bias exists. However, since non-linked records are likely to show less homogeneity than linked records, it is likely that the true situation shows even greater over-representation of claims over casualties for 'Rear End' crashes and neck injuries than noted.

3.5 Age

Figure 5 Claims and Casualties, 1998 to 2002, South Australia, by Age (as percentages of total claims or casualties)

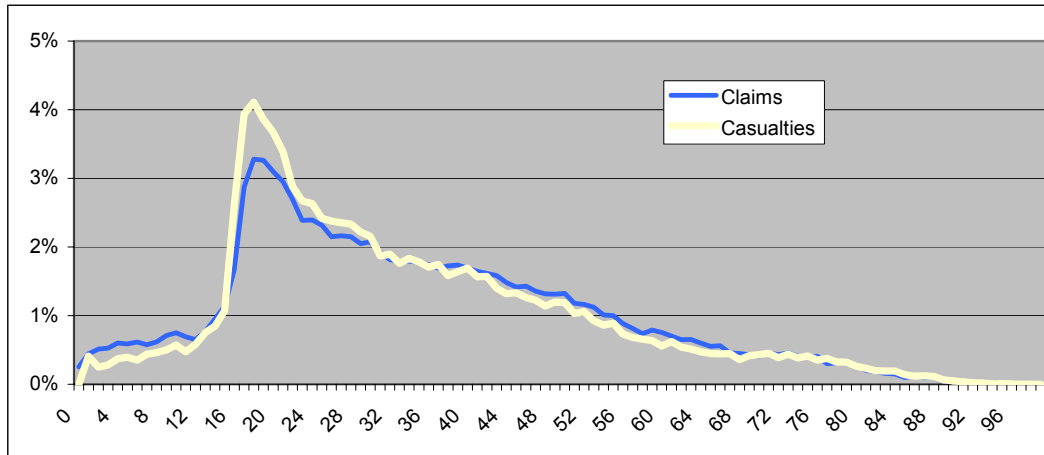


Figure 5 reveals the high percentage of people aged 16 to 25 injured in crashes. It also reveals the over-representation of casualties over claimants for these road users. This possibly reflects the over-representation of young drivers in crashes for which they cannot make a claim (ie they are solely at fault) or, less likely, the under-representation in late identification of injuries.

3.6 Gender

Figure 6 Claims, Casualties and Fatalities, 1998 to 2002, South Australia, by Gender (as percentages of total claims, casualties or fatalities)

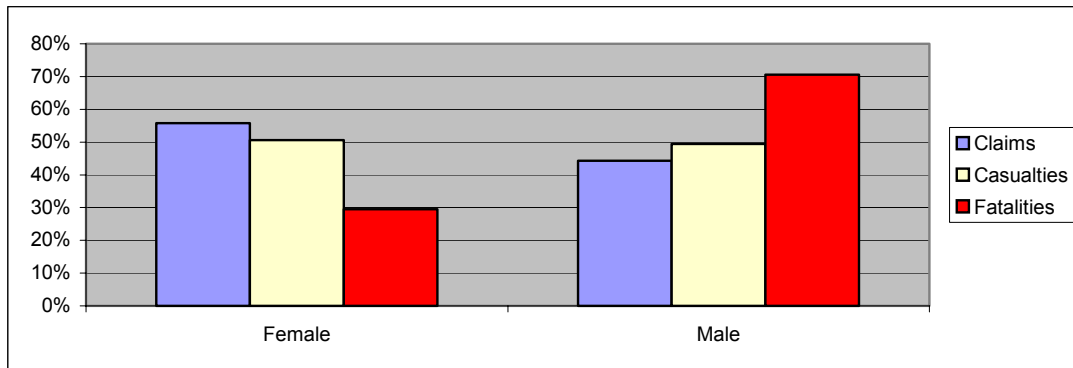


Figure 6 reveals the very high percentage of males killed in crashes, with an approximately even male/female split for casualties. There is an under-representation of males for claims, probably due to the greater tendency for males to be the drivers and thus more affected by the 'common law' issue.

3.7 Time of day

Figure 7 Claims, Casualties and Fatalities, 1998 to 2002, South Australia, by Time of Crash (as percentages of total claims, casualties or fatalities)

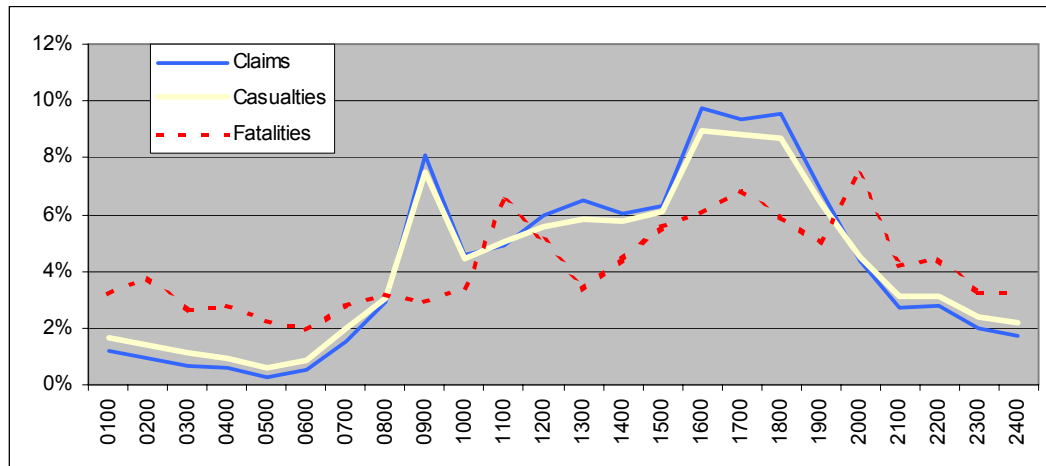


Figure 7 reveals an over-representation of casualties over claims at night and an under-representation during the day. These differences are probably generated by the higher proportion of single-vehicle crashes at night, influencing the ability to claim and the higher percentage of 'Rear End' crashes during daytime, with late identification of injuries.

3.8 Day of week

Figure 8 Claims, Casualties and Fatalities 1998 to 2002, South Australia, by Day of Week of Crash (as percentages of total claims, casualties or fatalities)

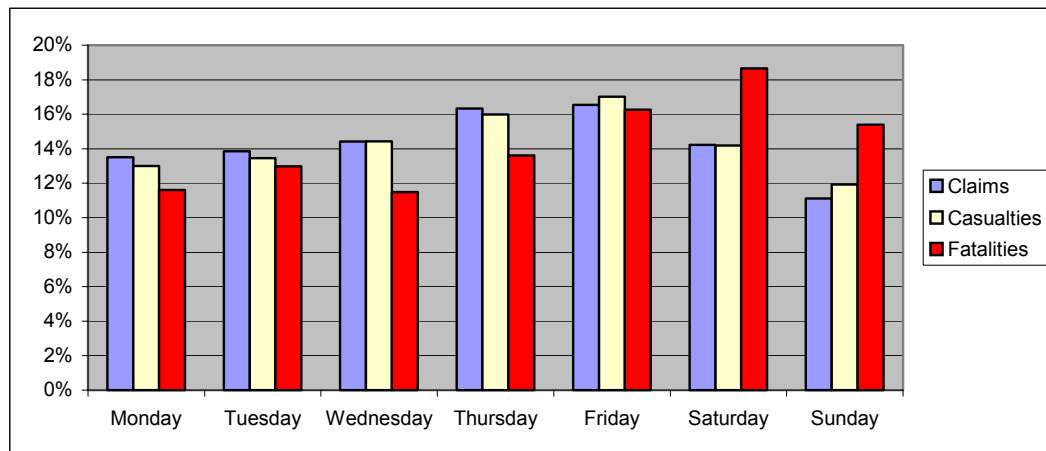


Figure 8 reveals the over-representation of fatalities on weekends, but there is little difference between the claim and casualty percentages by day of week.

4. COST OF CLAIMS

To maintain simplicity, this report has concentrated on the number of claims, however the cost of these claims is often of even greater importance. Perhaps the most important finding of this report is the under-reporting of 'Rear End' crashes and neck injuries. There have been suggestions that 'Rear End' crashes are of lesser importance because the injuries are often less severe. For fatalities, 'Rear End' crashes are less significant, and these crashes

may on average be less costly than other crashes, but only slightly so, and the huge numbers more than compensate. In the years 1998 to 2002, of all finalised claims, 'Rear End' crashes generated 37% of the total costs for the CTP fund in South Australia. In contrast, fatalities constituted 2.5% of total costs.

5. IMPORTANCE OF THE DIFFERENCE BETWEEN CTP AND CRASH STATISTICS

The main differences between CTP and crash statistics in South Australia probably arise from the nature of a 'common law' scheme, and from the failure to identify injuries through the road crash reporting system.

It can be argued that the 'common law' issue is less important from a road safety perspective, because the inability to claim for injuries does not make the injuries disappear (although there is some debate even here). But it definitely is an issue for the Insurers, for the setting of premiums and for the public in paying the premiums. Insurers already base CTP premiums on CTP statistics, but there is opportunity to take this further. If the statistics identify issues that are of higher priority for CTP insurance than for general road safety, then it is appropriate for Insurers to promote the initiatives that will address these issues.

The issues that arise from the late identification of injuries are very real in South Australia, and will probably exist (to some extent at least) in all States. The failure to truly identify the level of concern with 'Rear End' crashes is an important example. This may also influence the truth of other investigations. The under reporting of 'Rear End' crashes will almost certainly mean there is an under reporting of crashes at high-density traffic intersections, influencing the benefit/cost ratios and perhaps wrongly identifying 'black spots'. As an example, CTP claims from postcode 5000 (central Adelaide) constitute 8.2% of all claims, yet only 6.5% of casualties. The true level of the road safety problem in central Adelaide is higher than identified in the crash database used by planners. Planners may have inequitably allocated resources to the problem.

CTP statistics are critical for claims management and for identification of issues of importance to insurers. They also add information to the traditional crash databases, such as injury details and costs, that should prove useful to road safety researchers. They also have identified the under-counting of some types of crashes and injuries, which is an issue that should be addressed by those working in the field of crash database management.

Keywords

statistics, CTP insurance, crash databases