

DO 'SAFE RATES' ACTUALLY PRODUCE SAFETY OUTCOMES? A DECADE OF EXPERIENCE FROM AUSTRALIA



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Abstract

On 1 July 2014 the Australian government activated a body called the Road Safety Remuneration Tribunal. This tribunal would examine and legislate minimum rates of pay for owner drivers. This determination was based on the premise that there were strong links between truck crashes and driver remuneration. This perception has been held in Australia since the early 1990s. In April 2016 the Tribunal set an owner driver pay rate determination which precipitated industrial action. From 1991 to 2006 research had been undertaken into the safety of the 'hire and reward' sector, however, by 2016 perceptions about this sector were provably outdated. The expert findings in the National Transport Commission's report, (NTC, 2008) were weak. In 2013 new benchmarking of the 'hire and reward' versus the 'ancillary' segments' safety performance was undertaken with strong findings. This paper presents arguments from the most recent data and counters the industry remuneration/safety link.

Keywords: Truck Safety, truck crashes, heavy vehicle accidents, driver remuneration

1. Introduction

There have been several studies into the safety of the 'hire and reward', often called the 'for hire', trucking sector in Australia. To mention a few: Hensher et al (1991), Quinlan (2001), ACIL Tasman (2003), and National Transport Commission (2008). The safety aspects of the 'for hire' trucking industry. All these reports examined a range of problems within the industry but none offered conclusive proof that remuneration and safety were linked. The following discussion examines three, possibly weightier arguments that certainly do not support the accident-remuneration link, but also for the first time benchmarks the 'ancillary' sector against the for 'hire sector' with surprising results.

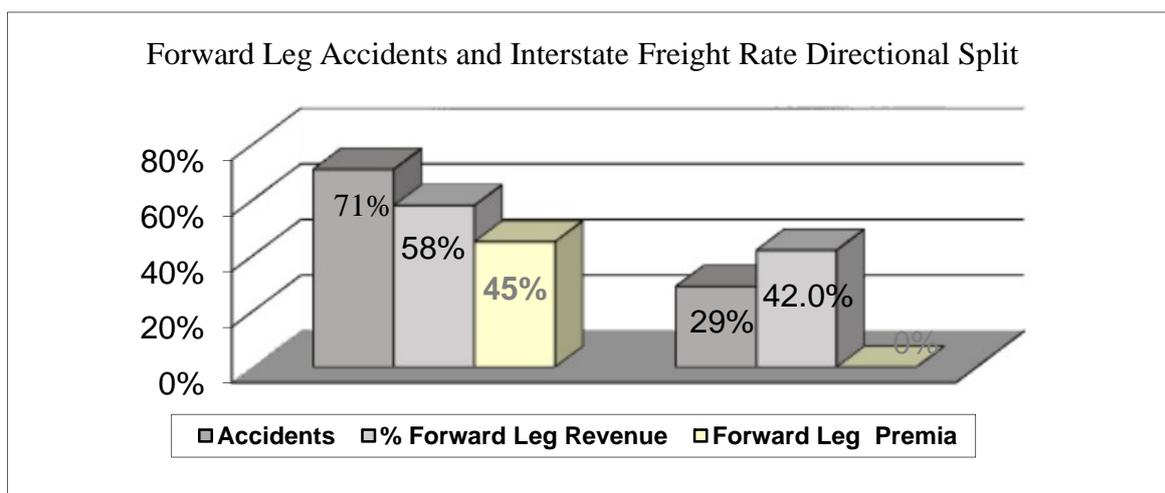
The Road Safety Remuneration Tribunal was established in 2014 with a mandate to investigate owner driver safety and to set a 'Safe Rates' remuneration scheme for Australian

Owner Drivers. The Transport Workers Union (TWU) strongly supported the RSRT claiming that both the ‘hire and reward’ sector and especially owner drivers were at risk by not having a ‘Safe Rates’ regime in place.

The following three arguments, although some are stronger than others, are presented to help demonstrate that no major statistical or causal link can be made between driver remuneration and safety for the ‘hire and reward’ trucking sector in Australia. The proof is even weightier that such a link exists between remuneration, and particularly the safety of owner drivers, which was the specific focus of the Road Safety Remuneration Tribunal’s deliberations over the period 2014-2016.

2. Argument One: The Directional Nature of Major Crashes in Australia

In Australia the National Truck Accident Research Centre (NTARC) publishes a biennial report on major truck crashes in the ‘hire and reward’ trucking sector. Major losses are examined across some 19 criteria ranging from cause, driver attributes, truck type, area of accident etc. However, one particular criterion is highly surprising and certainly relevant to the Safe Rates argument. This is the directional nature of the major crashes. What is surprising is that the forward legs of interstate and major regional trips are incurring some 70% of the major crashes. Why is this important? Many of the linehaul forward legs of truck trips carry a freight premium. For example, on a weighted average basis between Australia’s six major mainland State capitals there is a freight premia of 45% on the forward leg, The basket of listed rates was also extended to major regional cities and the weights were developed in proportion to one of Australia’s largest carriers. Examples of forward legs are Sydney to Brisbane, Melbourne to Adelaide, Sydney and Melbourne to Perth, Melbourne to Sydney etc. The premia can vary significantly, being zero on the Sydney to Adelaide corridor to being over 100% on the East Coast to Perth corridor. On the total revenue for a capital city return trip, on a weighted average basis, the forward leg on average returns 58% of the revenue and the backhaul leg some 42% of the revenue. However, it is the forward leg that commands the freight rate premium.



Source: NTARC, 2015 , TWU/ARTIO Interstate Rates Tables, Translog databases

Figure 1: Directional Nature of Major Accidents and Rate Imbalance

It is also noteworthy that around 50% of major crashes happen within 100 kilometres of base, and that some 70% of major accidents happen within 250 kilometres of base. Many of these

trips will be interstate intended but occur within an urban or regional environment and will be thus categorized as such. However, the directional freight rate premium argument will still apply to many of these trips.

Is the implication, therefore, the more you pay on the outbound leg the more accidents you are likely to have? This would seem to be a silly implication, and it is far more probable that accidents happen for many other 'non freight rate' related reasons. But the observation does not support a 'Safe Rates' proposal and runs contrary to the hypothesis that lower freight rates cause more accidents as the backhauls only incur 30% of major collisions and attract a 28% lower freight rate.

3. Who are ancillary operators?

The road transport industry is comprised to two large segments. These are the 'hire and reward' sector that does road transport for money and there is the 'ancillary' sector. The ancillary sector, known in the USA as the 'own account' sector, does not do truck driving for freight rates. Ancillary drivers are those that carry their own production sometimes on a full time basis and sometimes on an ad-hoc basis. For example, the farmer is an ancillary operator, who perhaps does seasonal drops of grain to a railhead. Farmers are the largest number of single fleet operators in Australia and significantly outnumber the number 'hire and reward' owner drivers. The small manufacturer who perhaps three times a week does deliveries of his goods to customers, the fruit shop owner who goes to the markets four times a week to put fruit and vegetables in his shop are all ancillary operators. But there are big ancillary operators who employ their own drivers. Large cement manufacturers who own their own concrete agitators, mining companies and construction materials companies, and even the army who employ their own drivers on salary are examples of larger 'ancillary' road transport operators.

3.1 Perception: The 'hire and reward' sector is the culprit

Following the significant Long Haul Safety report (Quinlan, 2001) which examined only the 'hire and reward' sector, the New South Wales Road Transport Association held a State convention in Terrigal in 2002. The proposal was directed to the author as to whether or not the 'hire and reward' sector was primarily responsible for truck fatalities. The response was overwhelmingly yes, that the 'hire and reward' sector was responsible for the vast majority of industry fatalities.

This perception went unchallenged up until recently. In 2014 Safe Work Australia produced a very significant analysis of 787 driver deaths in Australia over the ten year period from 2003 to 2012. What was an exceptionally useful finding was that driver deaths in the 'ancillary' sector were almost equivalent with the number of deaths in the 'hire and reward' sector. As rates do not apply in the ancillary sector how is it that the driver fatalities in this sector are virtually identical to the driver deaths in the 'hire and reward' sector that is supposedly impacted largely by freight rates? Perhaps the causes of driver deaths in the ancillary sector are the same as in the 'hire and reward' sector and that freight rates, which play no part in the safety of the ancillary sector, cannot be responsible for the same number of deaths seen in the 'hire and reward' sector. Other factors are at play.

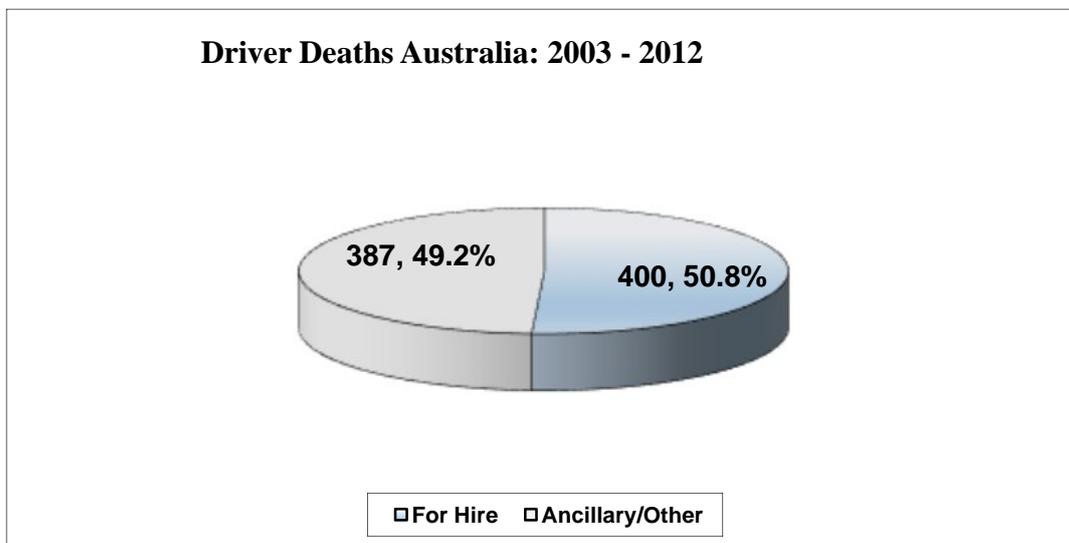
Table 1: Driver Deaths and Heavy Trucks Population by Operational Sector

| Sector | Driver Deaths 2003-2012 | Proportion | Trucks > 12T | Proportion |
|-----------|-------------------------|------------|--------------|------------|
| H&R | 400 | 51% | 129,100 | 52% |
| Ancillary | 387 | 49% | 117,400 | 48% |
| Total | 787 | 100% | 246,500 | 100% |

Source: Australian Bureau of Statistics 2014, Detailed SMVU data cubes, WorkSafe Australia, 2014

Table 1 reflects the proportion of driver deaths by a WorkSafe proxy for ‘hire and reward’ operations, although some of this category also has some postal and warehouse drivers which are actually ancillary drivers, and other not for hire sector drivers, ie, true ancillary. What can be seen is that the ‘for hire’ sector claimed 51% of the deaths and the ancillary sector 49% of driver deaths. Coincidentally this split between ‘for hire’ and ancillary deaths was almost equivalent to the heavy truck population split of vehicles greater than 12 tonnes Gross Vehicle Mass (GVM). This heavier end of the truck fleet encounters the vast bulk of driver deaths in Australia.

What can also be deduced is that employees in the ancillary sector, being full time or ad hoc, are as likely to be involved in a driver fatality as a ‘for hire’ employee. Being an ancillary employee will not lessen the probability of a driver having a fatal accident.



Safe Work Australia 2014

Figure 2: Driver Deaths Australia, by Ancillary and For Hire Segmentation

On a per 10,000 vehicle basis the rate of driver deaths would calculably be similar for both sectors as the number of heavy vehicles are approximately the same. However, on a per million kilometres travelled basis Table 3 tells a different story. In the examination of four vehicle classes 2 axle rigid trucks up to 12T GVM, 3 Axle rigid trucks over 18T GVM, six axle semitrailers and 9 axle B-Doubles the percentage of kilometres travelled by the ancillary operators is about one seventh that of the ‘for hire’ operators. If fatalities are approximately the same for both sectors, then on a million kilometres travelled basis the ‘ancillary’ sector is

several factors less safe than the ‘for hire’ sector, at least for these vehicle classes. Yet it is the ‘for hire’ sector that comes in for continual regulatory review.

Table 2: Proportion of travel by Ancillary Operators for various truck types

| Vehicle type | Number H&R | Number Ancillary | Ave km H&R | Ave Km Ancillary | National Ave | mkms H&R | mkms Ancillary | Percent Ancillary |
|--------------|------------|------------------|------------|------------------|--------------|----------|----------------|-------------------|
| H2ART | 25365 | 29353 | 27972 | 16100 | 21603 | 709.5 | 472.6 | 40% |
| H3ART | 26461 | 29353 | 50609 | 12135 | 30375 | 1339.2 | 356.2 | 21% |
| 6AA | 32022 | 13699 | 92491 | 20850 | 71026 | 2961.8 | 285.6 | 9% |
| 9ABD | 12154 | 1907 | 188000 | 26100 | 166043 | 2285.0 | 49.8 | 2% |
| Total | 96002 | 74312 | | | | 7295.4 | 1164.2 | 14% |

Sources: ABS SMVU detailed data cubes 2014, Translog Operator activity data bases 2013-14

The conclusion is that drivers are being killed in accidents for a myriad of reasons but as the same approximate number of drivers are being killed in the ancillary sector as in the hire and reward sector the low freight rates argument cannot be the major causal determinant in driver deaths in the ‘hire and reward sector because freight rates play no part in the ancillary trucking operations but we see an equivalent number of driver deaths.

4. Are owner drivers less safe than other operators?

At the macro level there are many groupings to which road freight transport can be categorized:

- by commodity carried, eg containers, forestry, livestock etc
- by rigid vs articulated truck operations
- by long distance vs regional vs urban operations
- by ancillary vs for hire operations, and
- by fleet vs owner driver operators.

These are all examples of how to segment the road transport industry. In this case the ‘owner driver’ group, within the ‘for hire’ sector, was the prime focus of the Road Safety Remuneration Tribunal (RSRT) in Australia.

In its 2015 report on the state of the heavy haulage road contract accidents, the National Truck Accident Research Centre (NTARC, 2015), examined the proportion of major accidents and losses by fleet size. In Australia National Transport Insurance (NTI), is the largest truck insurer of the ‘hire and reward’ sector. NTI has coverage of over 50% of the insured heavy vehicle market which forms a very suitable sample population on which to base accident observations. NTI also supplies the accident data to its research arm which is the National Truck Accident Research Centre.

NTI’s insured heavy truck portfolio is reflected in Table 3, on a portfolio proportion and accident claims proportion basis. Table 3 also reflects where the industry problems are in the heavy ‘for hire’ road transport sector.

Table 3: Major Accident Claims against Insured Portfolio by Fleet Size

| Operator Size | Large Fleets | SMEs | Owner Driver | Total |
|------------------|--------------|------|--------------|-------|
| Insured per cent | 61 | 20 | 19 | 100 |
| Claims per cent | 51 | 29 | 20 | 100 |

Source: NTARC 2015

Roughly the large fleets are 61% of the insured portfolio but these fleets reflect only 51% of the major incident claims. The Small Medium fleets (SMEs) are over represented with 29% of the claims against 20% of the insured portfolio. The owner driver sector represents 19% of the insured portfolio and has almost an equivalent percentage of claims, being just 20%. If poor safety practices by owner drivers, being an outcome of poor rates, or other reasons, these ‘poor practices’ are not reflected in the major accident statistics. The owner driver insured portfolio size virtually matches the size of the accident claims.

Why is this an important finding? If there existed a major safety problem with the owner driver segment the claims should have represented perhaps 30% or 40% of major impact collision claims, but this is certainly not the case. In brief there is no statistical over representation of the owner driver segment in heavy contract road haulage accidents in Australia at this time. The small/medium fleets in Australia are a much worse insurance risk that the owner drivers are.

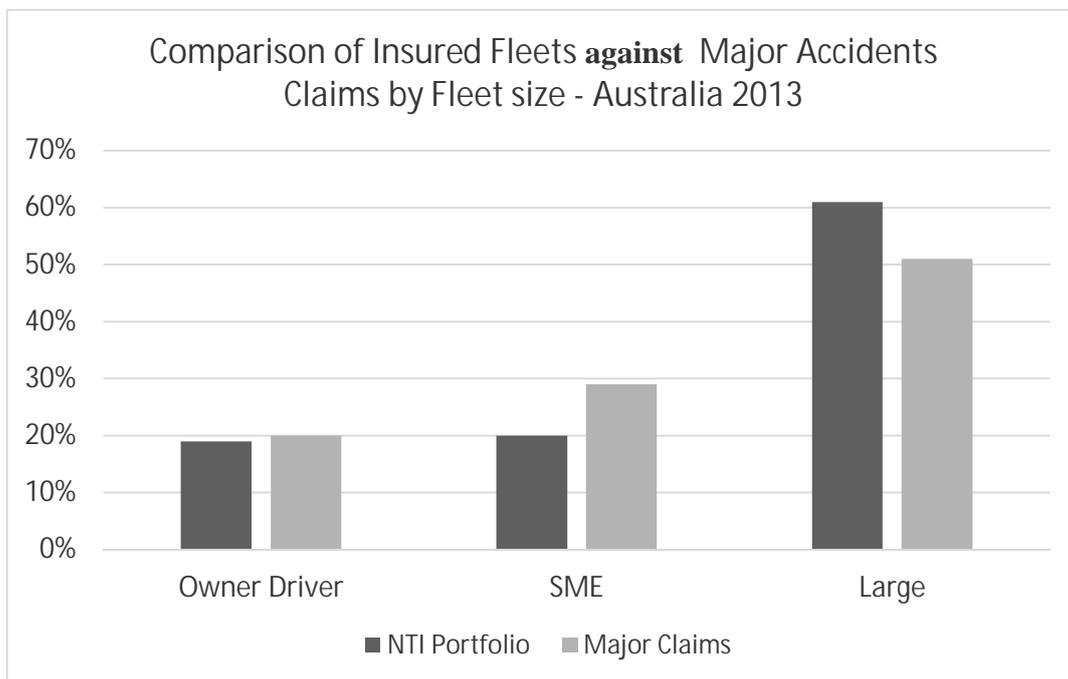


Figure 3: Major Accident Claims: Insured Portfolio against Actual Losses

5. Conclusion

The perception that the ‘hire and reward’ sector’s safety performance is linked to remuneration has often been touted by academics and industry critics based on data over the

period 1991 to 2006. However, despite an industry, which has, over this 15 year period been plagued with fatigue breaches, drug use and bad business practices, the direct link between safety and pay rates has never been conclusively proven. Since significant regulatory programs such as Fatigue Management and Chain of Responsibility have been enacted post 2006 there have been considerable declines in fatigue related heavy vehicle accidents. (NTARC 2011,2013) as just one area of improvement. Also, the first empirical evidence that the safety performance of the ‘for hire’ transport sector is no worse than the ‘ancillary’ sector and perhaps even better has recently emerged. This is the first time that such conclusive data has become available for the ancillary sector. As for the safety of the ‘owner driver’ segment being worse than the rest of the ‘hire and reward’ sector, this premise is absolutely false and this argument was the basic premise around the establishment of the two year Road Safety Remuneration Tribunal investigations, and the basis for the final pay rates determination. It should be noted that the Tribunal was disbanded two weeks after the determination was delivered.

Since the first significant data has emerged on the safety performance of the ‘ancillary’ sector, there is considerable scope for research to improve our understanding of this sector which has been sadly neglected for the last twenty years.

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Glossary

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| ABS | – Australian Bureau of Statistics |
| ARTIO | – Australian Road Transport Industrial Organization |
| H&R | – Hire and Reward |
| NTC | – National Transport Commission |
| NTARC | – National Truck Accident Research Centre |
| TWU | – Transport Workers Union |
| RSRT | – Road Safety Remuneration Tribunal |
| SMEs | – Small Medium Enterprises |
| SMVU | – Survey of Motor Vehicle Use |

Weblinks:

Australian Broadcasting Commission – April 2016

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Road Safety Remuneration System

<https://www.fairwork.gov.au/about-us/legislation/road-safety-remuneration-system>