

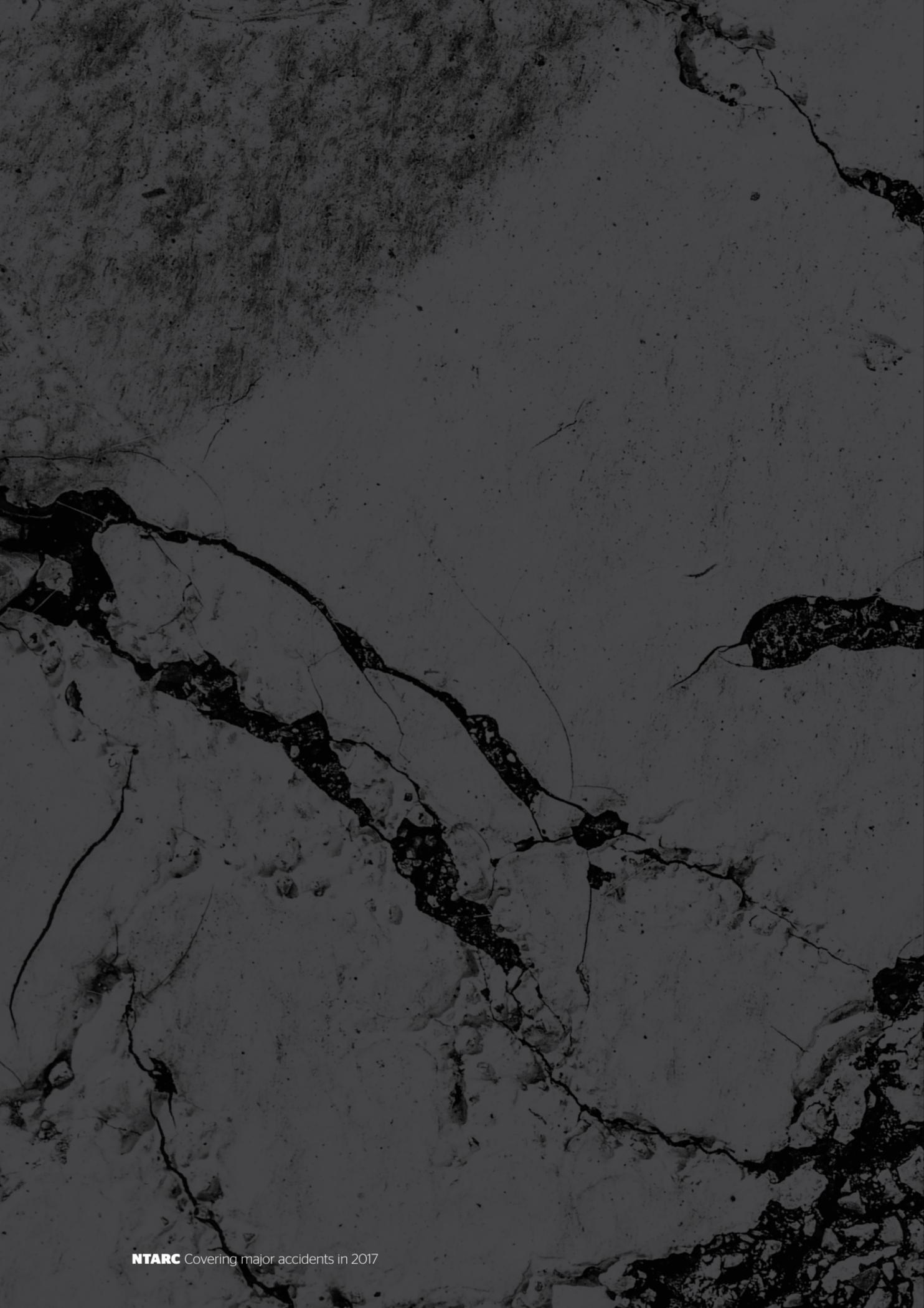
MAJOR ACCIDENT INVESTIGATION REPORT

COVERING
MAJOR
ACCIDENTS
IN 2017

2017

NTI National
Transport
Insurance

NTARC



FOREWORD

The eighth edition of the NTARC Major Accident Investigation Report is a document that, much like the industry on which it reports, contains both change and continuity.

This edition heralds the passing of the baton to a new author. Following an announcement by NTI CEO Tony Clark, this edition also represents the final year of biennial publishing, and the final year reporting on data from two years prior to the release of the report.

In 2017, we saw a stagnation in the overall safety performance of the heavy vehicle fleet, with around one fatal crash involving a heavy vehicle per billion tonne kilometres of freight.

This measure of safety performance consistently improved from 1.85 in 2004 to just over 1 in 2015, however remained essentially static at that level through 2016 and 2017.

Between 2015 and 2017, the number of heavy motor vehicles insured by NTI increased by 10%.

SPECIAL ACKNOWLEDGEMENT

It is difficult to overstate the contribution the outgoing author of this report has made to heavy vehicle safety in Australia.

Through a combination of vision and personal effort, Owen Driscoll led NTI's creation of, what has become, one of the primary data sources for almost every Australian heavy vehicle regulatory reform in the past decade.

While many have spoken to the value of a data-and evidence-based approach to heavy vehicle regulation, there are few who have done more to bring that to reality than Mr Driscoll.

Throughout his distinguished 43 year tenure at NTI, and the 14 years as author of the NTARC Major Crash Reports, Owen forged strong relationships across the transport and logistics ecosystem. From owner-drivers and large fleet operators to senior bureaucrats and ministers, Owen became a respected advisor.

Owen also made significant contribution through his deep understanding of industry issues and his strong relationship with the Australian Trucking Association. Probably the best example of this is his contribution to the industry owned and led accreditation scheme TruckSafe.

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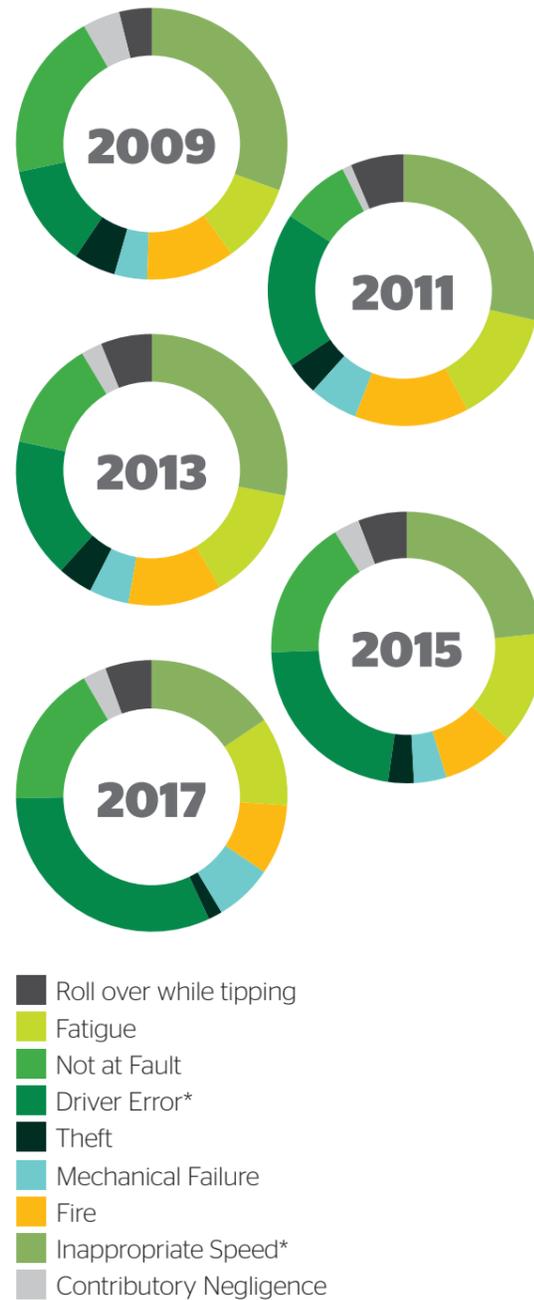
INTRODUCTION & SUMMARY OF FINDINGS

SUMMARY OF FINDINGS

In 2017, most categories of incident cause remained generally consistent with previous reports, with some exceptions. These are the key findings:

- Mechanical failure losses increased from 3.5% to 6.5% of all losses - an increase of over 80% - with steer tyre failures being the predominant underlying cause.
- The proportion of losses attributed to fatigue decreased from 21.4% in 2015 to 14.8% in 2017, driven by a sharp reduction in fatigue losses in Victoria.
- Losses arising from the actions/behaviour of drivers (fatigue, inappropriate speed and driver error) continue to represent the majority of losses, remaining steady at around 54% of all losses since 2009.
- The trend of an increasing proportion of not at fault claims has continued, but at a lesser rate (5.9% increase, compared with 21.8% between 2013 and 2015).
- Roll over while tipping accidents remain around 5% of all large losses with incidents in Western Australia making up 40% of losses in this category.
- The proportion of large losses involving multiple vehicles has continued to grow, increasing by 12% over the 2015 data to now constitute 37% of losses.
- For fatal multi-vehicle incidents, the third party vehicle was at fault 83% of the time. NTI has been reporting on this figure for a decade and the statistic has never been outside of the band between 80 and 100%.

INCIDENTS BY CAUSE AND YEAR



*Editor's note: Visible in the data is a sharp increase in driver error losses and a corresponding decrease in inappropriate speed, this arises from a change in categorisation for a subset of driver error claims. This is examined in more detail in the In-depth Driver Error section.

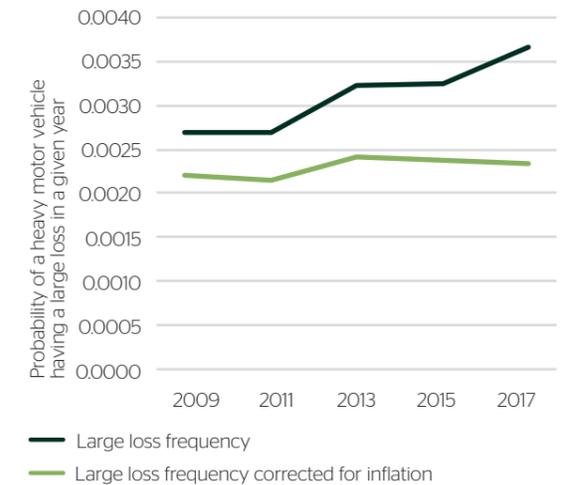
INTRODUCTION

The 2019 edition of the NTARC Major Accident Investigation Report provides data insights from NTI's heavy motor vehicle claims which exceeded \$50,000 in 2017.

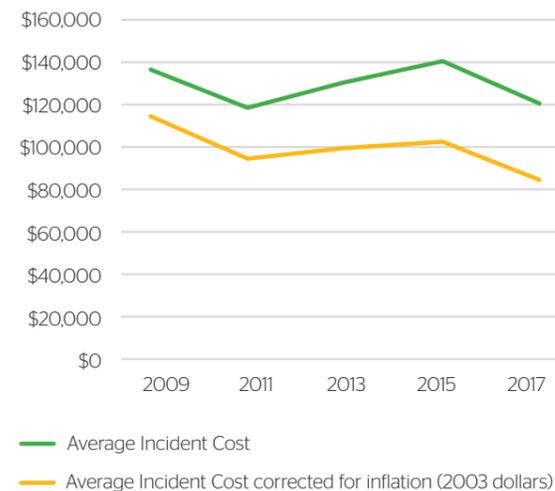
This report examines data from 756 claims, an increase of 150 incidents over the 2017 report.

This increase is driven by a mix of ongoing strong growth in NTI's portfolio and by the effect of inflation resulting from the fixed \$50,000 threshold for inclusion in the NTARC Major Crash Investigation Report.

LARGE LOSS FREQUENCY OVER TIME



AVERAGE INCIDENT COST OVER TIME



The relationship between the NTI-insured portfolio and the occurrence of large losses provides a measure of the overall performance of the road transport fleet. While the frequency of losses over the \$50,000 threshold on a per vehicle basis has been steadily increasing, if a correction is applied to the \$50,000 figure to correct back to the 2003 inception of this report series, we find that large loss frequency has remained stable over the last decade.

What this shows is that around 0.24% of heavy motor vehicles will be involved in a large loss in any given year, or around 1 in every 400 trucks.

Applying a similar correction to the average incident cost, we can see that the average cost per incident has decreased slightly when corrected for inflation.

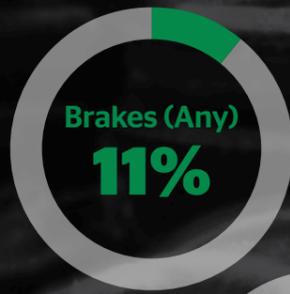
02

IN DEPTH

THE 'IN DEPTH' SECTION PROVIDES AN OPPORTUNITY TO LOOK BEYOND THE BASIC FINDINGS AND TO UNDERTAKE DEEPER ANALYSIS, EITHER BY FURTHER ANALYSIS OF CLAIMS DATA AND/OR BY REFERENCE TO EXTERNAL DATA SOURCES.

MECHANICAL FAILURE INCIDENTS BY SUB-CAUSE

Tyre (Steer)
55%



**IN DEPTH:
MECHANICAL FAILURE -
STEER TYRE FAILURE**

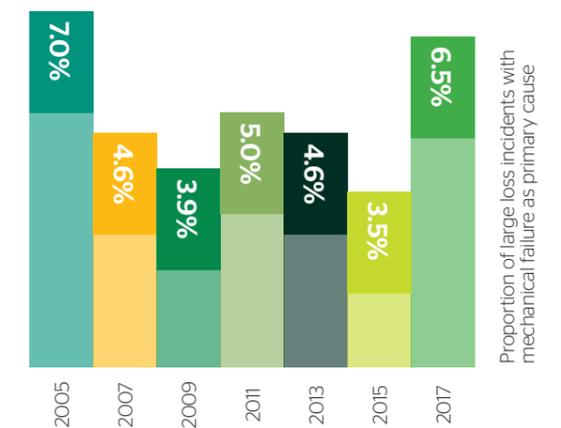
While mechanical failure is not one of the largest contributors to NTI's large losses, it has consistently been the primary causal factor in around 1 in every 20 large losses. There has been a 60% increase in mechanical failure large losses in 2017 (compared to an average of the 2013 and 2015 data) and, as such, deserves closer investigation.

If we examine these losses more closely, it becomes apparent that the majority of these losses relate to tyres and in particular to steer tyres. It should be noted that these results do not necessarily reflect any issues with the manufacture of the tyres themselves.

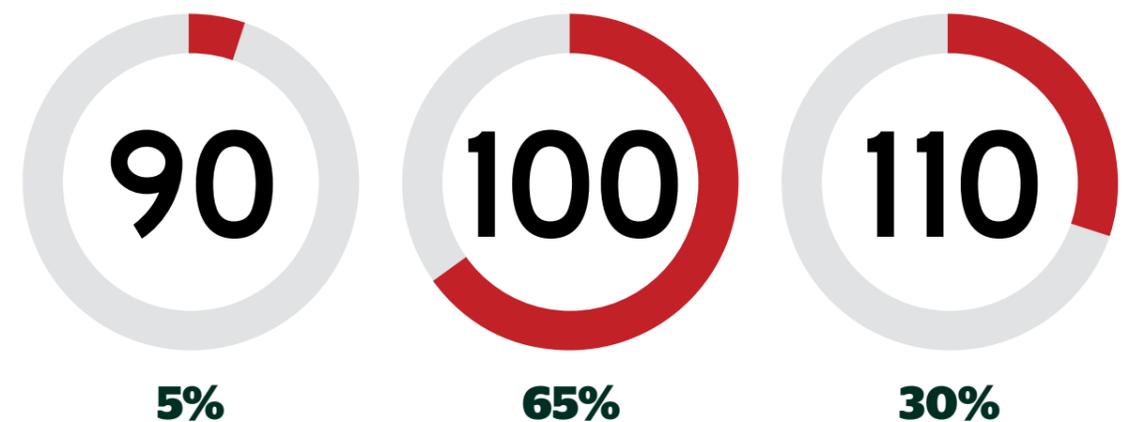
Inadequate tyre inflation is identified anecdotally as a leading cause of tyre failure however there is an opportunity for further research in this area.

The steer tyre failure incidents in the data set all resulted in vehicles having high speed crashes with little to no opportunity for the driver to respond before striking barriers or leaving the roadway. Given the sudden and catastrophic nature of the crashes in these incidents, it is somewhat surprising that the only loss of life from these crashes in 2017 was that of a driver's best friend, his faithful dog.

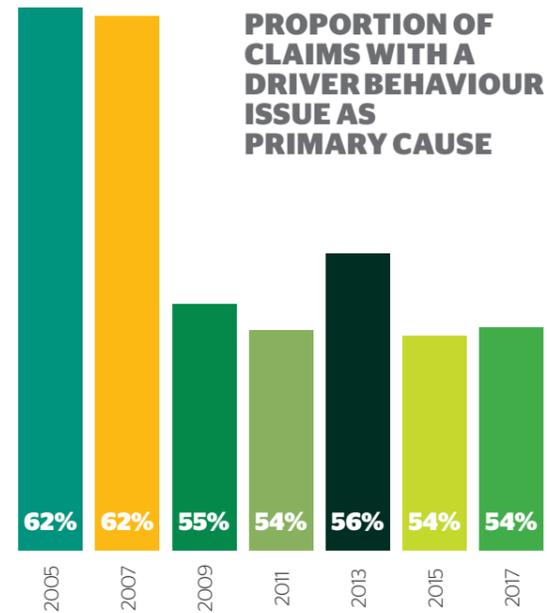
MECHANICAL FAILURE INCIDENTS BY YEAR



STEER TYRE FAILURES BY SPEED ZONE



IN DEPTH: DRIVER ERROR - INADEQUATE FOLLOWING DISTANCE



Combining the Driver Error, Fatigue and Inappropriate Speed cause codes allows the contribution of driver behaviour towards large losses to be tracked over time.

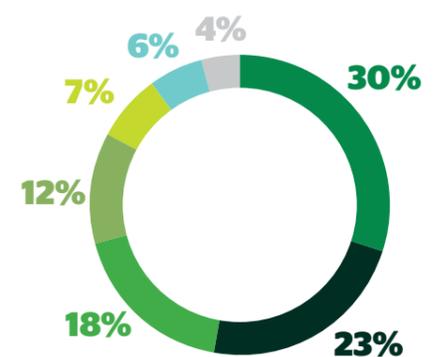
The sharp drop in 2009 reflects a sharp reduction in fatigue losses between 2007 and 2009. This corresponds with the introduction of standardised heavy vehicle work diaries in most states in September 2008.

One of the changes in this edition of the Major Crash Investigation Report is the categorisation of data within the Driver Error cause code. With the Driver Error category accounting for one in five crashes, additional sub-causes around particular driver behaviours have been added to provide deeper insights.

This revealed that nearly one in three driver error crashes resulted from inadequate following distance which, in the majority of cases, then resulted in a 'ran into rear' crash. While it is tempting to apportion this to heavy vehicle driver behaviour, it is important to consider that heavy vehicles do not operate in isolation.

It should be noted that driver behaviour reflects the environment in which they operate, so any initiative would need to address following distance holistically across all vehicle categories.

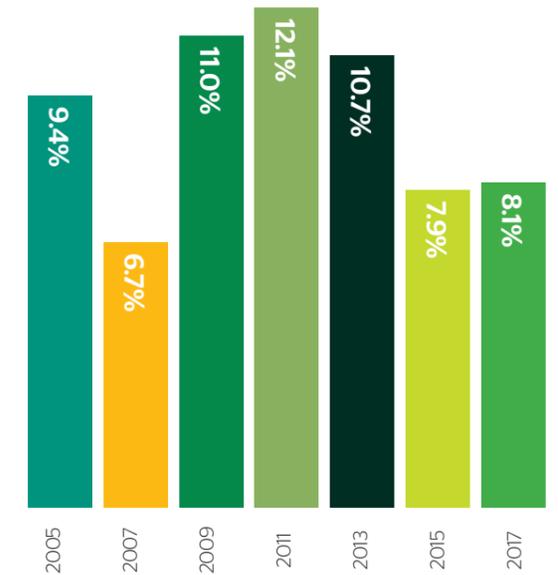
DRIVER ERROR INCIDENTS BY SUB-CAUSE



- Inadequate following distance
- Inattention/Distracted
- Inappropriate vehicle positioning
- Other
- Failure to give way
- Failed to apply park brake
- Inattention/Distracted

IN DEPTH: NON-IMPACT FIRE

PROPORTION OF CLAIMS FROM NON-IMPACT FIRE

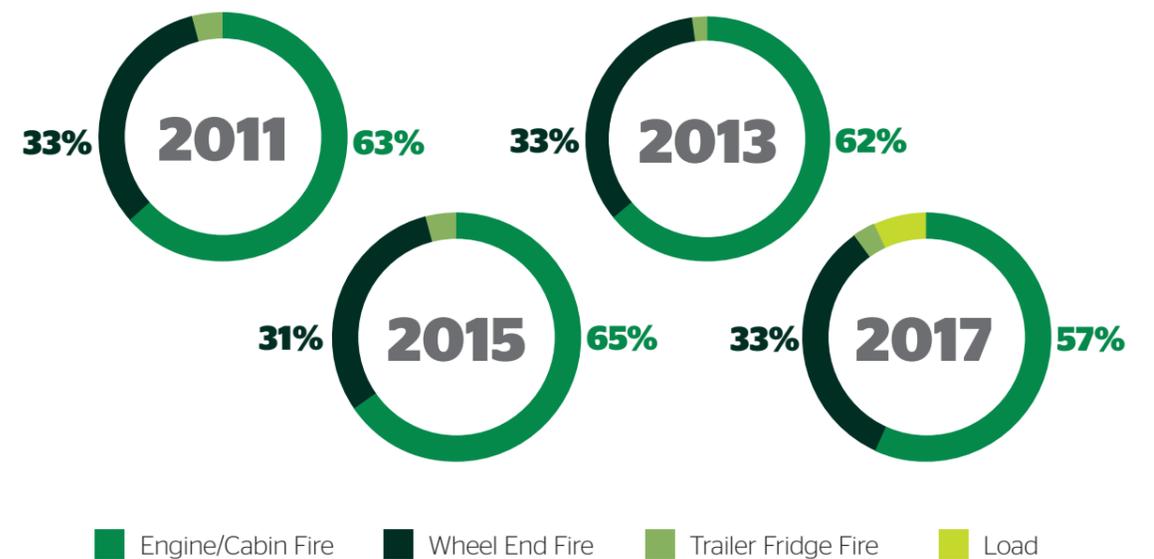


Non-impact fire was the major theme of the 2013 NTARC report and became a significant industry focus in the 12 months that followed. In 2015, there was a reduction of over 20% in the proportion of claims arising from fire and it has remained steady at this level in 2017.

Notably, while the overall proportion of non-impact fire losses has decreased, the distribution of the cause of the incidents has remained reasonably consistent, with only a small decrease in the proportion of fire originating in the cab/engine bay.

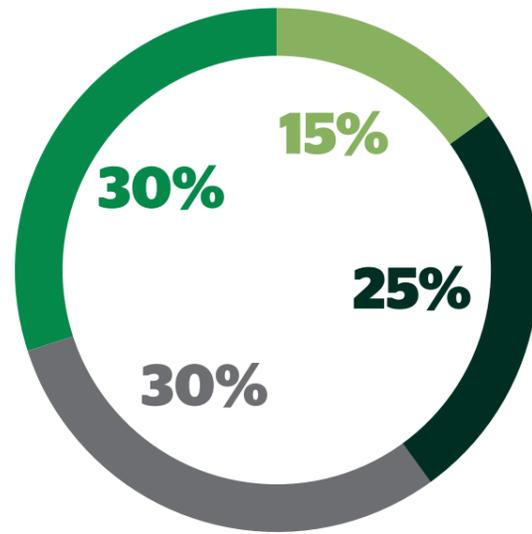
“Wheel bearings, brake chambers, fuel lines, starter power cables; get any of these wrong and your ‘\$200,000 prime mover’ might become ‘\$3,000 of scrap metal’.”

FIRE LOSSES BY CAUSE

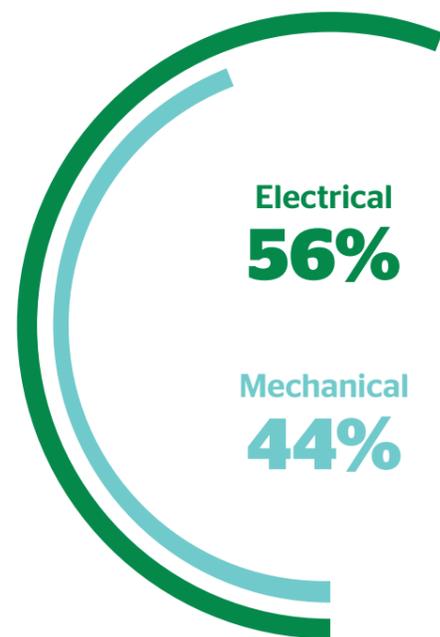


Examining the causes of these fires more closely starting with wheel end fires, we found that the predominant initial trigger for the fires is either wheel bearing or tyre failure.

This was closely followed by wheel end fires initiated by the braking system. Brake fires typically resulted from some defect in the parking brake system which resulted in the spring-applied park brake being lightly applied. Over time, the dragging brake resulted in an accumulation of heat causes the tyres, wheel bearing grease and other flammable material to spontaneously combust.



WHEEL END FIRES BY SUB-CAUSE

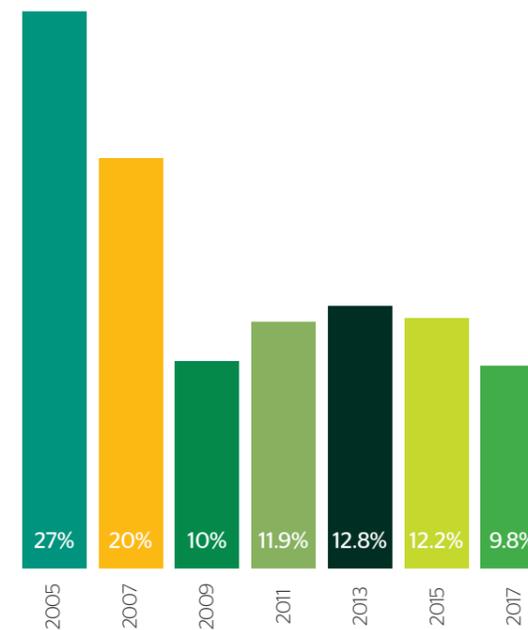


ENGINE/CABIN FIRES BY SUB-CAUSE

Engine/Cabin fires were split between those which resulted from electrical fires and those which came from the failure of a mechanical system. Of the electrical fires, the overwhelming majority of these were caused by the main starter motor power feed cable, with most of the remainder being from alternator power output cables.

For the fires arising from mechanical failures, common causes include high pressure fuel system leaks, turbocharger failures and hydraulic and oil line failures.

FATIGUE INCIDENTS AS PROPORTION OF ALL LARGE LOSSES



IN DEPTH: FATIGUE

In 2017, there was a decline in the proportion of all large losses caused by fatigue, dropping by around two percentage points when compared to 2013/2015. At 9.8% of losses, this is the lowest proportion recorded since the inception of this report series.

Looking at the geographical distribution of the fatigue losses, and after a spike in fatigue incidents in Victoria in 2015, there has been a sharp decline. Conversely, Western Australia has seen a sharp increase back to levels similar to that seen in 2009, following its second lowest proportion of fatigue losses in 2015.

FATIGUE INCIDENTS BY STATE



RELATIVE RISK OF FATIGUE INCIDENTS BY STATE CORRECTED FOR FREIGHT VOLUME - 2017

New South Wales and Queensland continued their trend of recent years with an increased proportion of fatigue losses. New South Wales is now just short of hosting two out of every five serious fatigue incidents.



In 2017, neither Northern Territory nor Tasmania had a large loss claim with NTI resulting from fatigue however given their small proportion of the freight task, just one or two fatigue incidents in a year would result in them being over-represented.



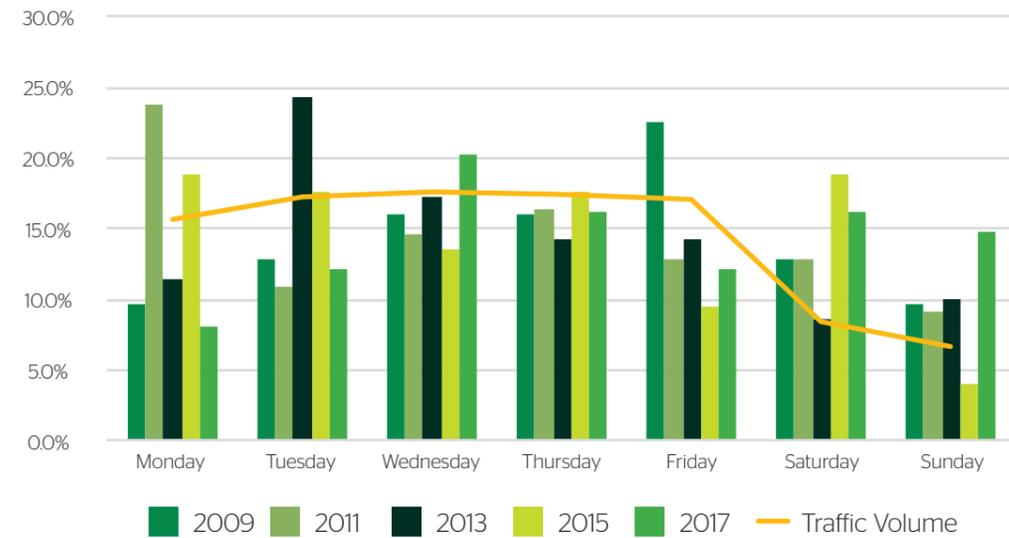
When corrected for the proportion of the freight task (mass x distance travelled), we see that Queensland's and New South Wales' risk of fatigue incidents is 51% and 33% higher respectively than the national average, while Victoria is the best performing state with a rate of fatigue incidents less than half that rate. Western Australia manages to be exactly on the national average when corrected for their proportion of the freight task.



! THE LOWER THE BETTER.



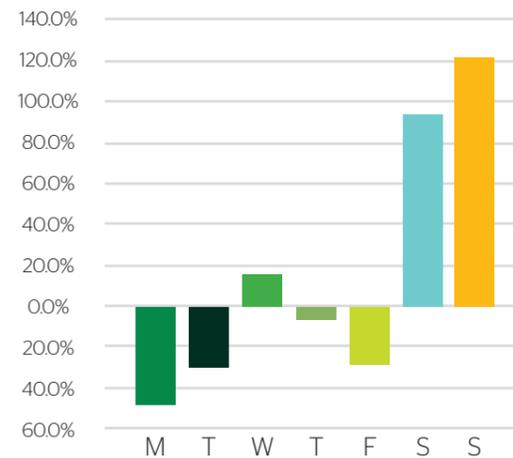
FATIGUE INCIDENTS BY DAY OF WEEK



When fatigue large losses were examined by the day of the week, there has been a dramatic increase in the proportion which occurred on Sunday, while the proportion occurring on Saturday has reduced only slightly since a sharp increase in 2015.

Using data from 24 sites, including a mix of metropolitan and regional roads, a model for traffic volume has been created.

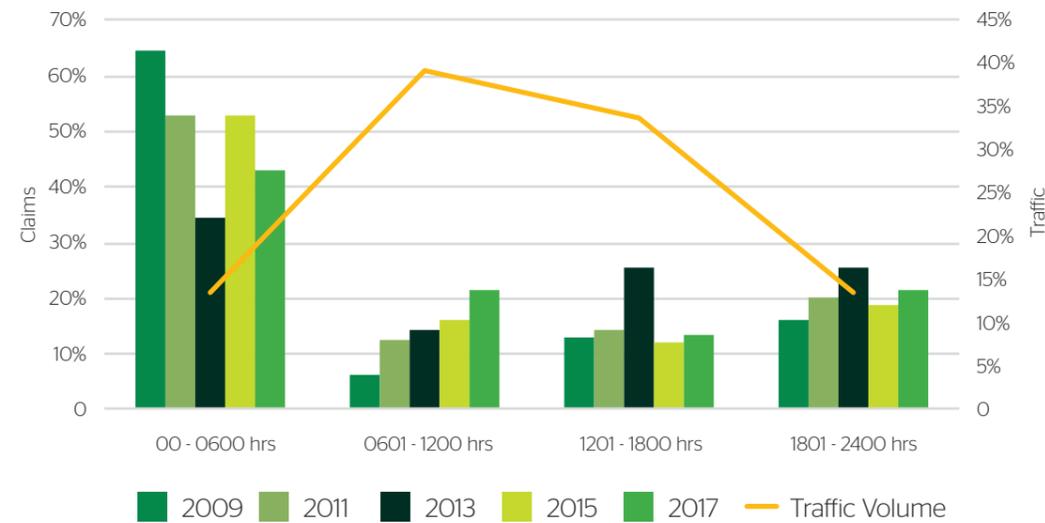
FATIGUE INCIDENT RISK BY DAY OF WEEK CORRECTED FOR TRAFFIC VOLUME



Applying this to the fatigue losses, we see that the risk of a fatigue crash on a weekend is around double the weekly average, while Monday and Tuesday show the lowest risk of fatigue crashes. This is in contrast to the finding for inappropriate speed crashes by day of the week.

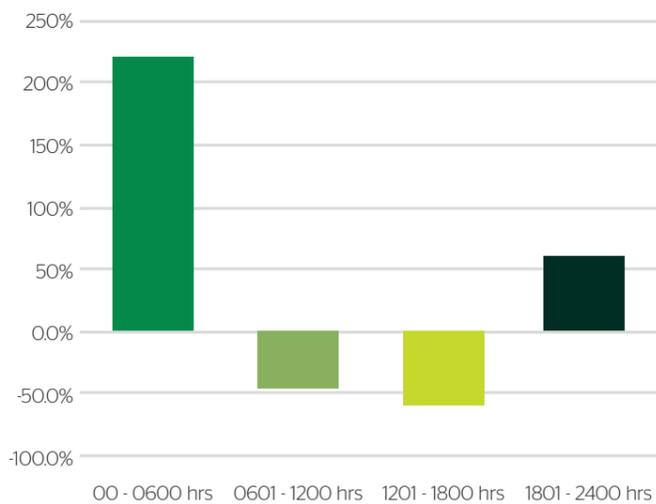
! THE LOWER THE BETTER.

FATIGUE INCIDENTS BY TIME OF DAY



It has been a consistent trend throughout the history of the NTARC report that a disproportionate number of fatigue incidents happen between midnight and 6am. This trend continued in 2017 with over 40% of all fatigue losses occurring during this time period.

RELATIVE FATIGUE INCIDENT RISK CORRECTED FOR TRAFFIC VOLUME BY TIME OF DAY



By overlaying traffic volumes, the relative risk of a fatigue incident at a given time of the day was assessed. Measured in this way, the risk for a truck driving between midnight and 6am was over triple that of the daily average. By contrast the range of time covering 'business hours' had a risk of a fatigue crash around half the daily rate.

! THE LOWER THE BETTER.

IN DEPTH: ROLL OVER WHILE TIPPING

ROLLOVER WHILE TIPPING



Roll overs which occur while unloading tippers have consistently represented around one in every twenty large losses.

It is important to highlight that tipping losses which occurred as the result of another identifiable cause, such as where a structural failure triggers (rather than results from) a roll-over, are categorised as such. As such, these 5% of losses only capture where there was no identifiable driver behaviour or other factors contributing to the incident and, as such, the event took place:

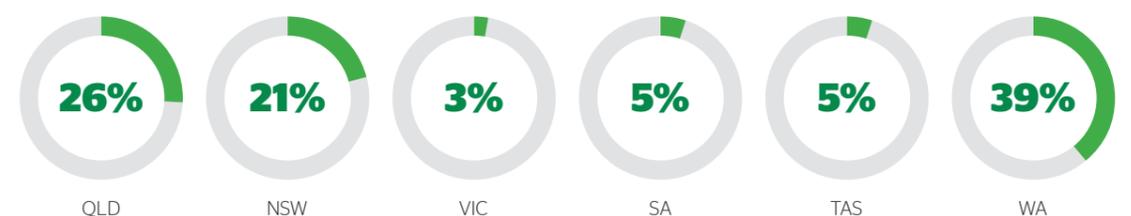
- On substantially flat, firm and level ground;
- In the absence of excessively high wind; and
- Without any driver error, such as backing over already tipped material.

It is not often that the data supports focussing in on an issue down to a specific task in a specific region, however in examining rolled while tipping losses a particular issue rapidly became apparent. 40% of these losses occurred in Western Australia and the vast majority of these occurred in a radius of between 50 and 350km around Perth.

These losses all involved multi-combination tippers carrying fertilisers/soil conditioners for agricultural use, predominantly lime sand. Lime sand is used to increase the pH of soil, particularly in wheat growing areas.

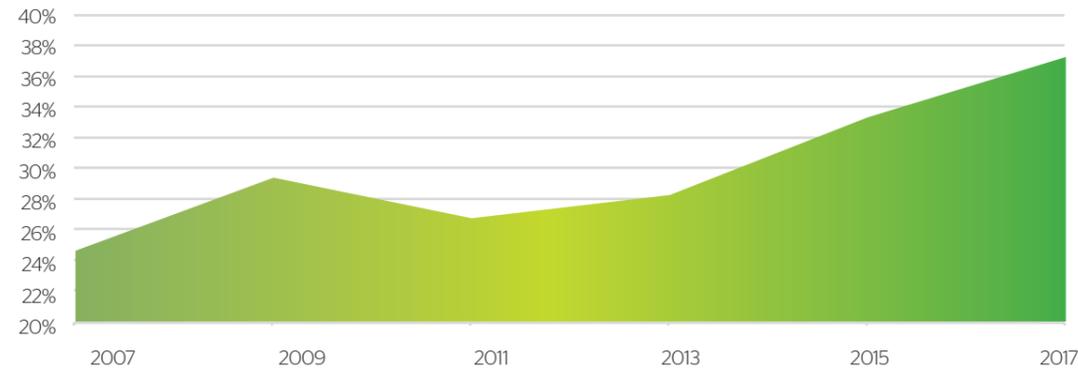
The combination of a dense, 'sticky' load, the length of tipping bodies on semi-trailer tippers, and the lack of torsional coupling between units due to the 50mm pin type coupling on dollies, resulted in somewhat of a perfect storm for tipping losses.

ROLLED WHILE TIPPING LOSSES BY STATE

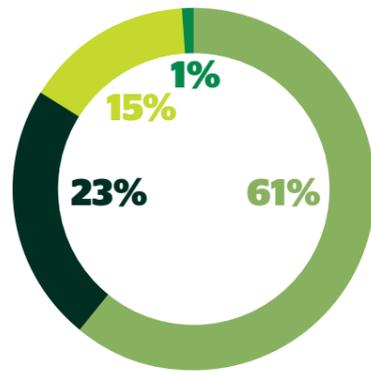


IN DEPTH: MULTIPLE VEHICLE INCIDENTS

PROPORTION OF MULTI-VEHICLE INCIDENTS



ALL INCIDENTS BY AT-FAULT PARTY



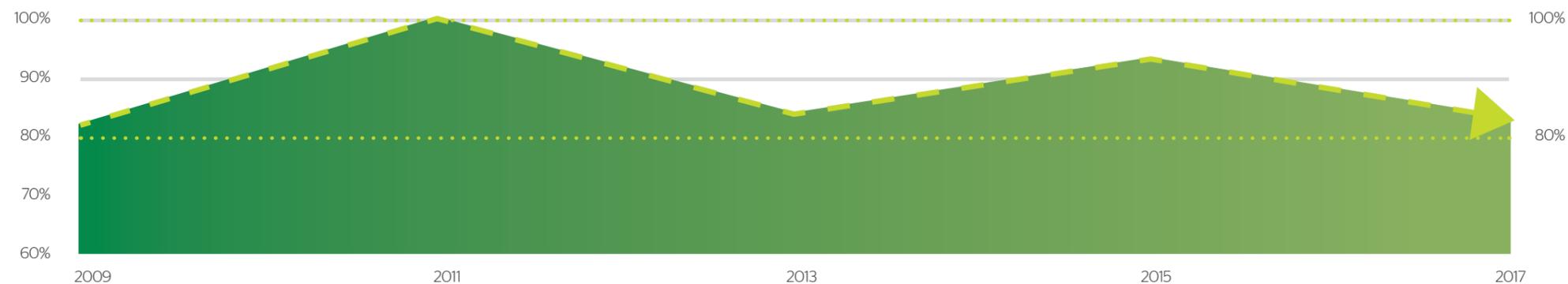
■ Single Vehicle At Fault ■ Multi Vehicle At Fault
■ Single Vehicle Not At Fault ■ Multi Vehicle Not At Fault

Over recent years there has been a steady increase in the proportion of large losses involving multiple vehicles. In 2015, this statistic exceeded one in three crashes and, in 2017, it rose further still to 37%.

Overall, this means for all incidents, NTI's insured drivers were at fault 84% of the time, with almost three-quarters of these incidents involving only a single vehicle.

Consistent with the 2015 data, when considering multi-vehicle incidents which do *not* involve a fatality, NTI's insured driver was at fault 65% of the time.

PROPORTION OF NOT-AT-FAULT FATAL MULTI-VEHICLE CRASHES



For fatal multi-vehicle crashes in 2017, the other driver was at fault 83% of the time.

This is a decrease from the 93% figure seen in the 2015 data. NTI has been reporting on this particular statistic for a decade and the proportion has remained in a band between 80% and 100% throughout.

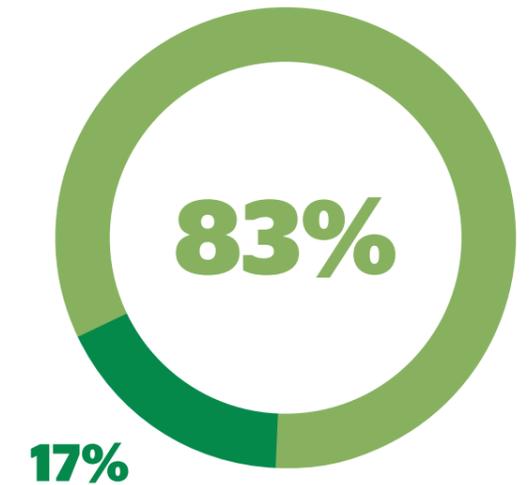
For the first time in the NTARC report, the contribution of suicide to this figure was evaluated. A criteria was developed which identified whether suicide was:

- Strongly indicated - typically by a note or explicit statement;
- Indicated - meeting the civil burden of proof - "on the balance of probability";
- Counter-indicated - not meeting that burden of proof; or
- Strongly counter-indicated - where some other identified cause existed.

This does not represent a final determination of whether a particular incident was a suicide - that determination has always been and remains the role of the coroner. However, this analysis provides a significant insight into challenges which may exist in trying to address light vehicle at-fault multi-vehicle road deaths.

Assessed against this criteria, 37.5% of multi-vehicle fatal incidents in 2017 were either indicated or strongly-indicated to be suicide, with 20.8% being strongly indicated as suicide.

MULTI-VEHICLE FATAL INCIDENTS BY AT-FAULT PARTY



■ Multi Vehicle not at Fault ■ Multi Vehicle at Fault

“Every NTARC report since 2009 has shown that the overwhelming majority of fatal multi-vehicle crashes are not the fault of our insured’s truck.

2019 is no different with 83% of fatal multi-vehicle crashes being the fault of the third party. ”

03

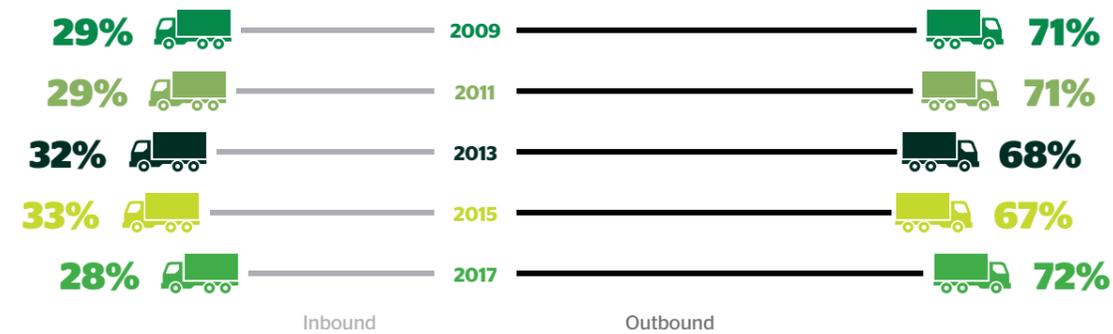


BY THE NUMBERS

THIS SECTION CONTAINS
REPORTING OF DATA
FOR NTI LOSSES THAT
CONTINUES THE TIME SERIES
OF PREVIOUS REPORTS.

BY THE NUMBERS: DIRECTION OF TRAVEL

DIRECTION OF TRAVEL

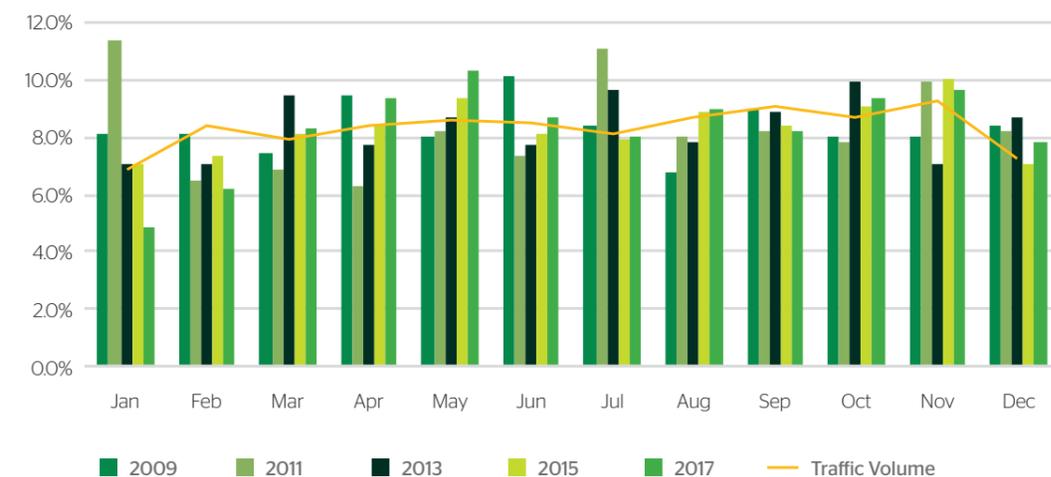


After a consistent decline over previous years, 2017 saw a marked increase in the proportion of losses occurring on the outbound leg of the journey.

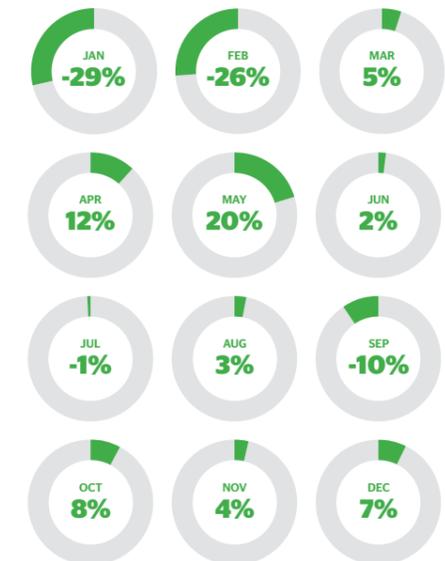
BY THE NUMBERS: MONTH / SEASON

January 2017 recorded the lowest monthly proportion of claims in NTARC reporting at 4.9%. By contrast, there was an increase in the proportion of crashes occurring in April and May.

PROPORTION OF LARGE LOSS INCIDENTS BY MONTH OF YEAR



INCIDENT RISK CORRECTED FOR TRAFFIC VOLUMES BY MONTH OF YEAR

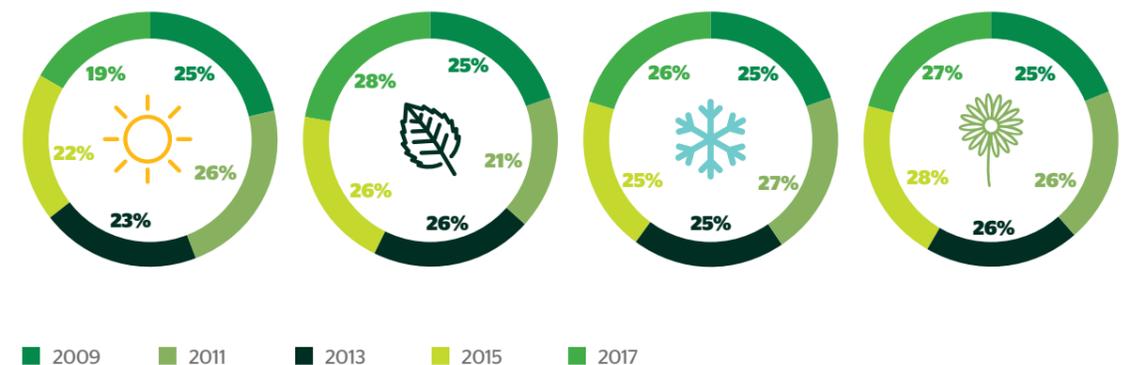


Applying the traffic volume model to assess the risk of a loss showed that, even though truck traffic volumes were at their lowest in January and February, they still had the lowest risk of a large loss, with a 25-30% lower rate of incidents.

By contrast, after correcting for traffic volumes, the likelihood of a truck on the road being involved in a large loss was 20% higher in May.

Given the month-by-month data, it is no surprise that Summer had both the lowest proportion of large losses and also the lowest risk of a large loss once corrected for traffic volumes.

PROPORTION OF INCIDENTS BY SEASON

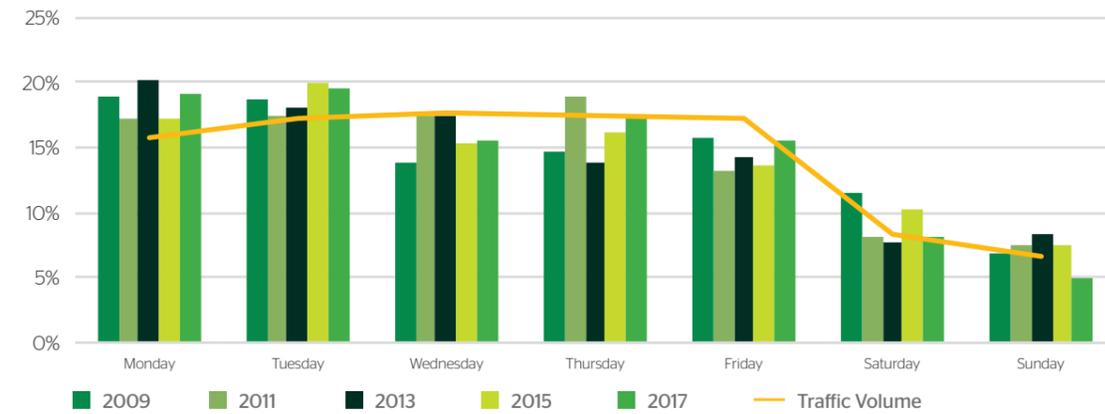


INCIDENT RISK BY SEASON CORRECTED FOR TRAFFIC VOLUME

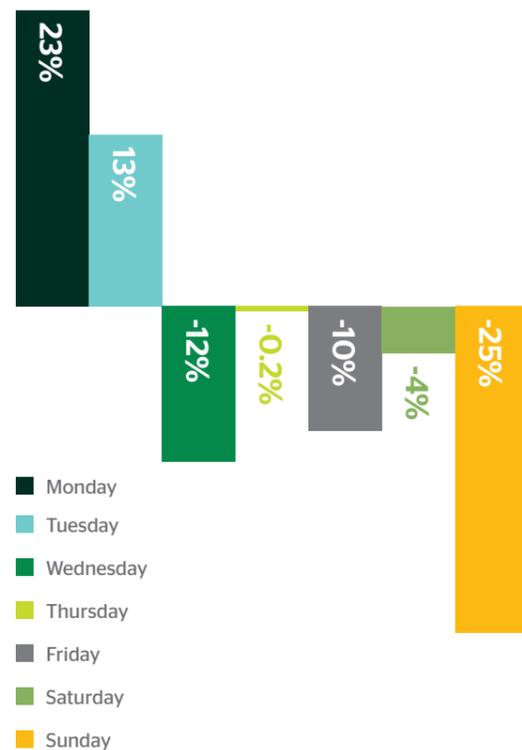


BY THE NUMBERS: DAY OF WEEK

PROPORTION OF INCIDENTS BY DAY OF THE WEEK



CRASH RISK CORRECTED FOR TRAFFIC VOLUME BY DAY OF THE WEEK



Monday and Tuesday continued to have a greater proportion of incidents than other weekdays.

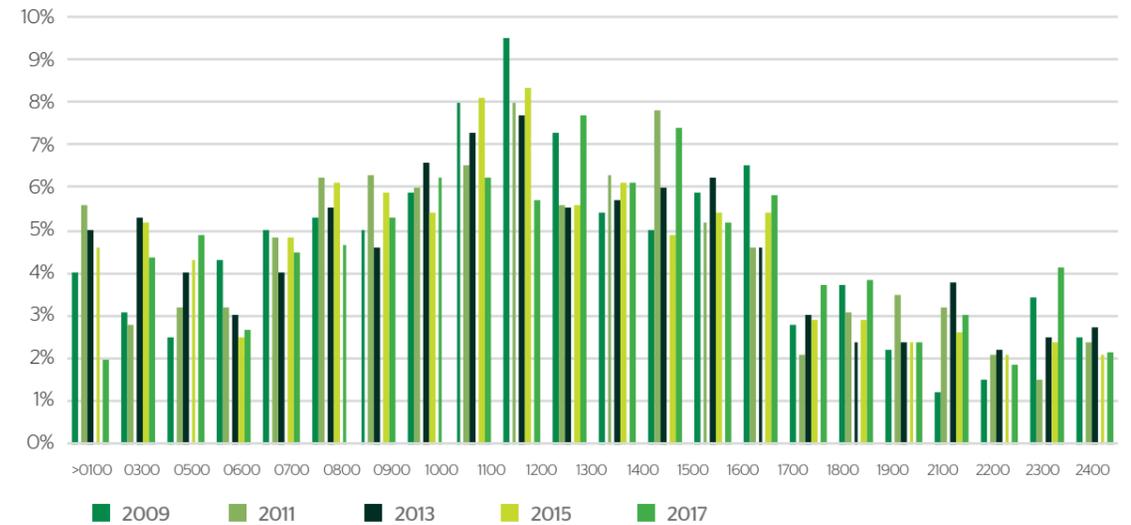
Applying the traffic volume model we can see that this increase was not the result of a greater number of vehicles on the road, but rather that the risk of a given vehicle having a crash on a Monday is over 20% above the weekly average.

As discussed in the Inappropriate Speed section, a significant portion of the additional incidents were caused by driver behaviour, suggesting that once drivers settled into the working week, their driving performance improved. Alternatively, this may be indicative of fitness to drive issues, however issues around fitness to drive are generally more likely to manifest as inattention/distraction incidents.

BY THE NUMBERS: TIME OF DAY

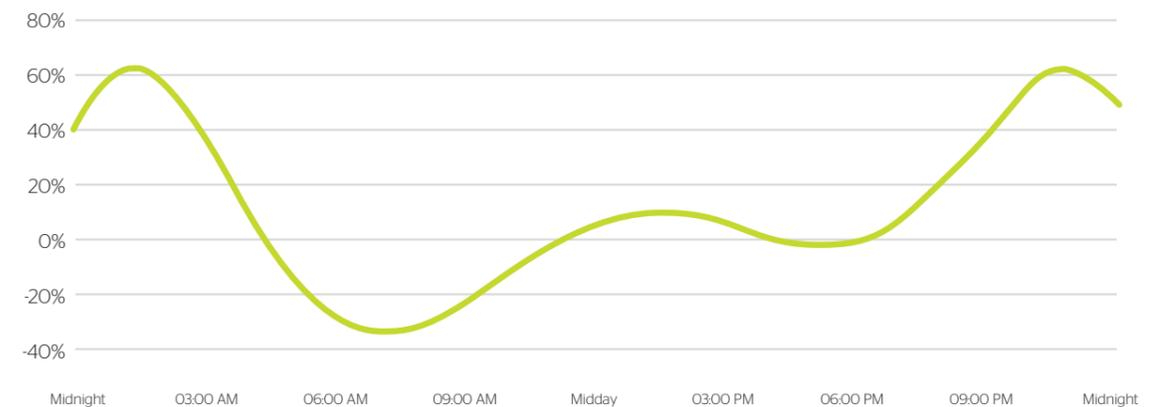
We have seen some change in incidents by time of day, with a sharp drop in incidents between midnight and 1am contrasting with a sharp increase in incidents between 10pm and 11pm.

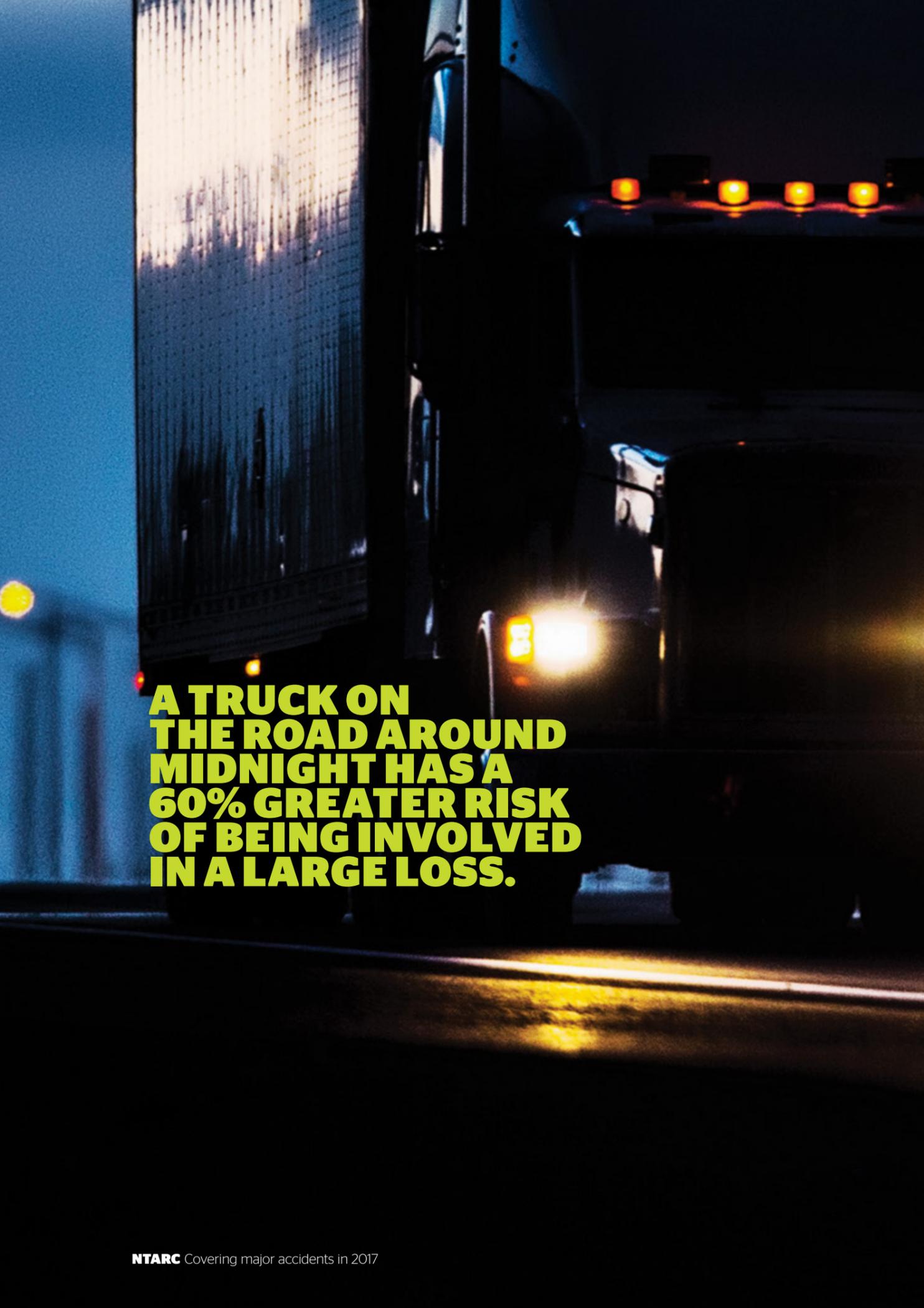
TIME OF DAY



Again overlaying the traffic volume data we see that the highest rate of crashes on a per vehicle basis are outside of business hours, while the period where a given vehicle is least likely to be involved in a large loss is around 7am to 8am.

TIME OF DAY CRASH RATE CORRECTED FOR TRAFFIC VOLUME

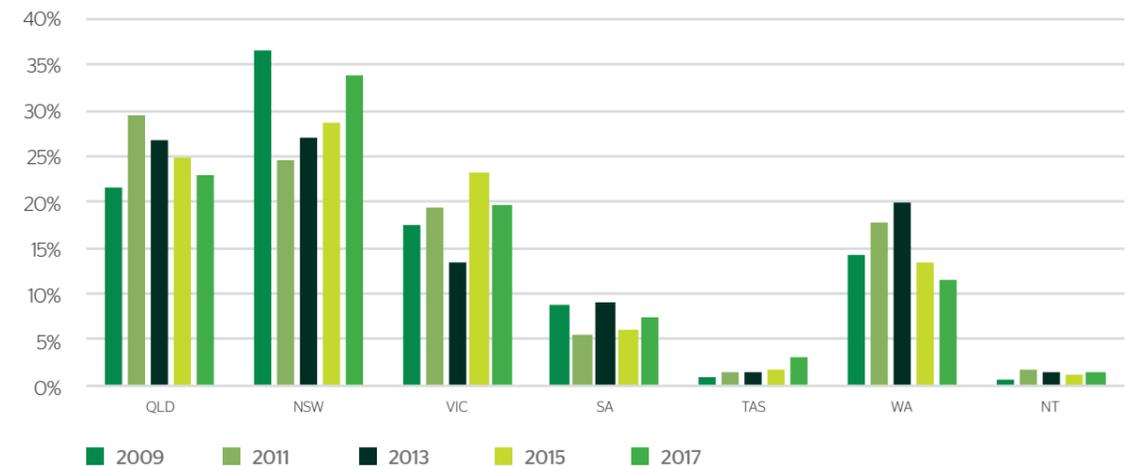




A TRUCK ON THE ROAD AROUND MIDNIGHT HAS A 60% GREATER RISK OF BEING INVOLVED IN A LARGE LOSS.

BY THE NUMBERS: ACCIDENT LOCATION

PROPORTION OF LOSSES BY INCIDENT STATE

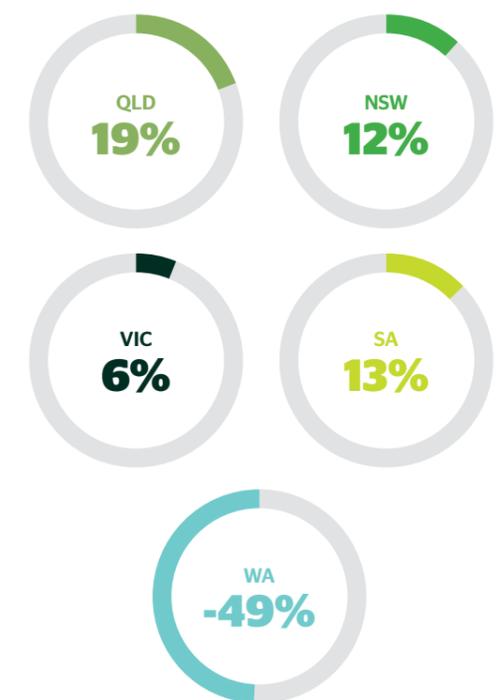


The proportion of losses occurring in Queensland has continued its multi-year decline in 2017, while New South Wales has continued to see an increase with the figure of 34% now approaching the high of 36.5%.

Correcting for each state's proportion of the national freight task, Western Australia had the lowest relative risk of involvement in a large loss incident, while the small jurisdictions (Northern Territory and Tasmania) were the worst performers. However, given the very small proportion of the freight task carried in those markets, these have been excluded from the graphs to the right.

Of the 'large' jurisdictions, Queensland was the worst performer proportional to its freight task, with a rate of large losses 20% above the national average. By contrast Western Australia was the best performer with nearly twice the volume of freight moved for a given number of large losses.

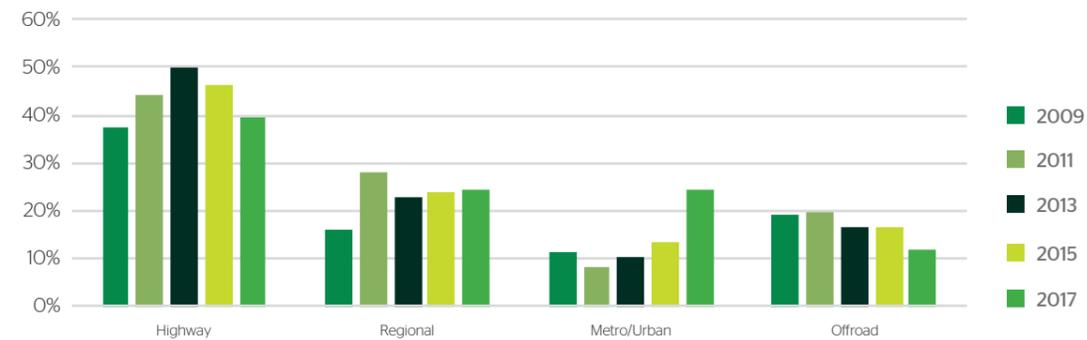
RELATIVE RISK OF A LARGE LOSS INCIDENT IN 2017 BY STATE CORRECTING FOR FREIGHT TASK



BY THE NUMBERS: ROAD CATEGORY

2017 saw a significant decrease in large losses occurring on highways and offroad locations, with the proportion of losses occurring in metropolitan and urban roads increasing by 80%. Part of this likely relates to the increase in multi-vehicle losses, given that they predominantly occurred in metropolitan areas.

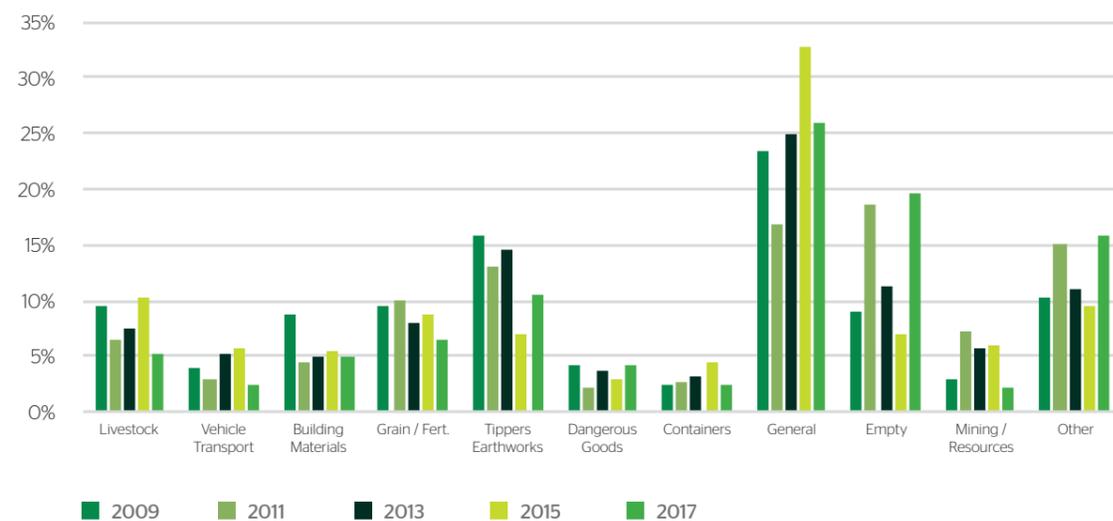
ROAD CATEGORY



BY THE NUMBERS: FREIGHT CATEGORY

The most notable changes in the freight carried were the sharp increases in the proportion of incidents involving unladen vehicles, however this was likely the result of a change in data processing, with a greater emphasis on what a vehicle was actually carrying at the time of incident rather than capturing what cargo it would typically carry.

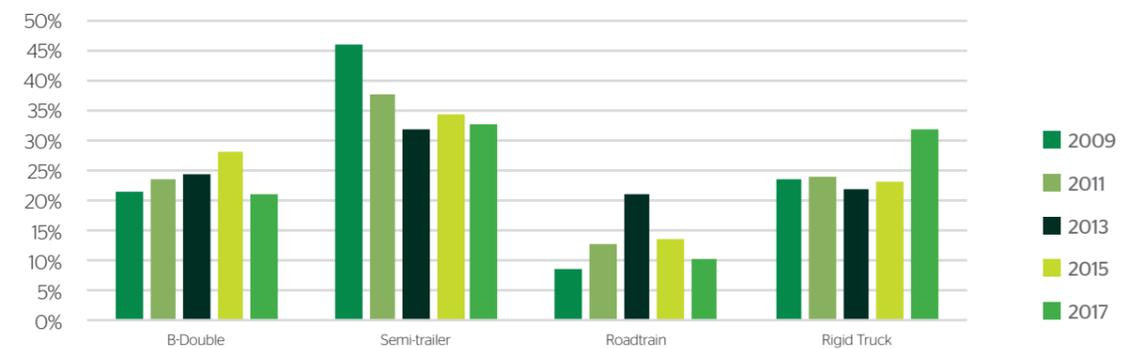
FREIGHT ON BOARD



BY THE NUMBERS: VEHICLE CONFIGURATION

Large combinations improved their performance in 2017 with a greater proportion of losses attributed to rigid trucks, while road trains and, in particular B-doubles, saw reduced proportions of large claims.

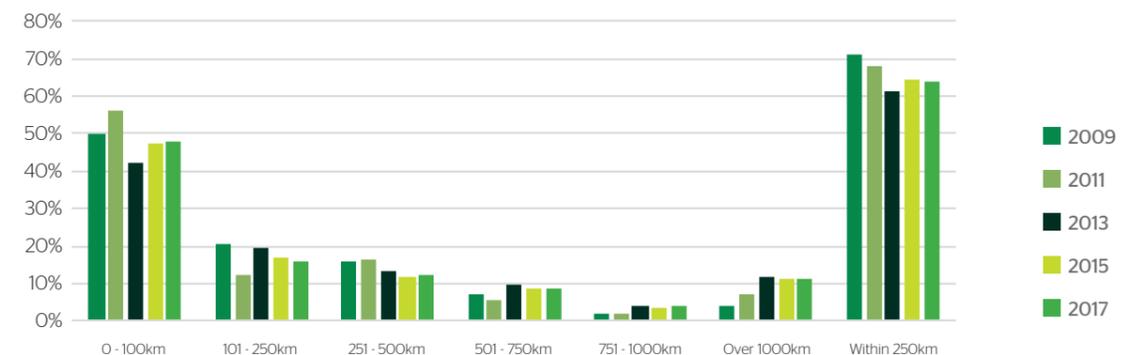
VEHICLE CONFIGURATION



BY THE NUMBERS: DISTANCE FROM POINT OF DEPARTURE

The distribution of losses by distance from their base remained absolutely stable with the results from 2015.

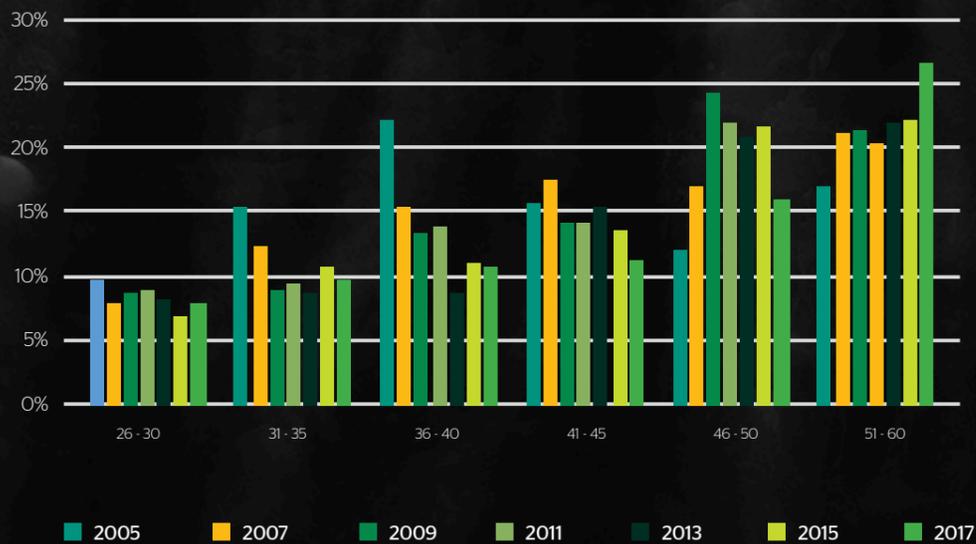
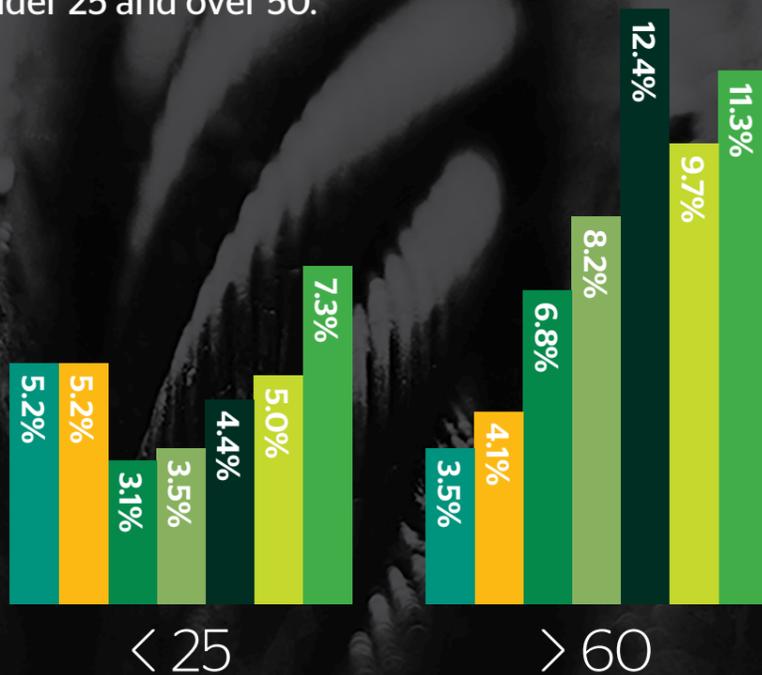
DISTANCE FROM BASE



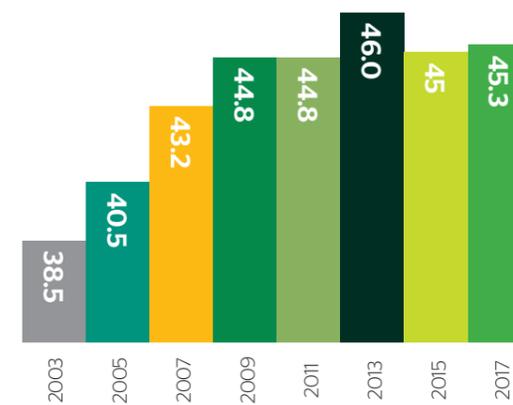
BY THE NUMBERS: DRIVER'S AGE

AGE OF DRIVERS FOR LARGE LOSS INCIDENTS

We've seen spikes at both ends of the age spectrum with increases in both drivers under 25 and over 50.



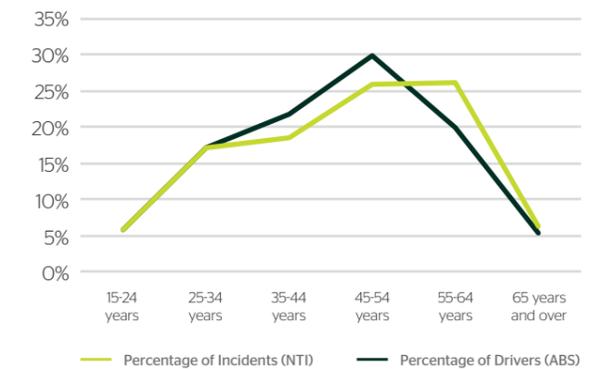
AVERAGE AGE OF DRIVERS FOR LARGE LOSS INCIDENTS



Reviewing the age of our insured drivers in large loss incidents revealed some interesting trends. There was a sharp increase in losses for drivers in the 51-60 year age bracket, and a smaller increase for drivers under the age of 25. There was also a marked decrease in the proportion of claims where our insured driver is 46-50 years old.

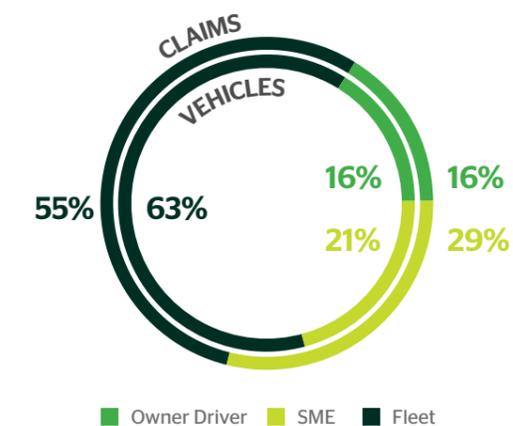
The average age of drivers has remained largely stable since 2009, with the average age for the large loss claims reviewed in this report being 45.3 years; a small increase from 45.0 years for large loss claims in 2015.

Overlaying the driver age data from large losses with Australian Bureau of Statistics data for employed drivers showed a very close fit. Drivers aged 15-24 and 25-34 had large loss claims directly proportionally with their proportion of the employed driving population. Drivers from 35 to 54 years old were over-represented compared to their proportion of the population. Drivers in the 55-64 year old age range were significantly under-represented in large losses.



BY THE NUMBERS: SIZE OF BUSINESS

PROPORTION OF LOSSES AND INSURED UNITS BY SIZE OF BUSINESS

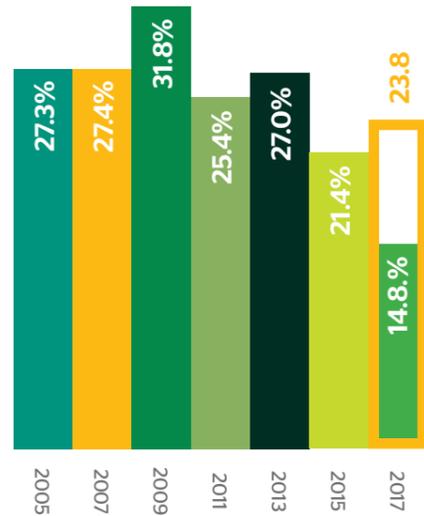


NTI separates customers into three categories by business size: owner-drivers, small to medium enterprises (SMEs), and fleets. SMEs are defined as having fewer than 15 heavy vehicle units. By comparing the proportion of units insured by NTI by business size against the number of claims made, the relative safety performance of different business sizes can be assessed.

In 2017, owner drivers made claims exactly in proportion with their number of units, while SMEs had a relatively higher frequency of losses. Fleets were the best performing market segment with 63% of the vehicles insured but only incurring 55% of the losses.

BY THE NUMBERS: INAPPROPRIATE SPEED

INAPPROPRIATE SPEED CRASHES AS A PROPORTION OF ALL LARGE LOSSES



At first glance there appears to have been a significant reduction in the proportion of losses which were attributed to inappropriate speed.

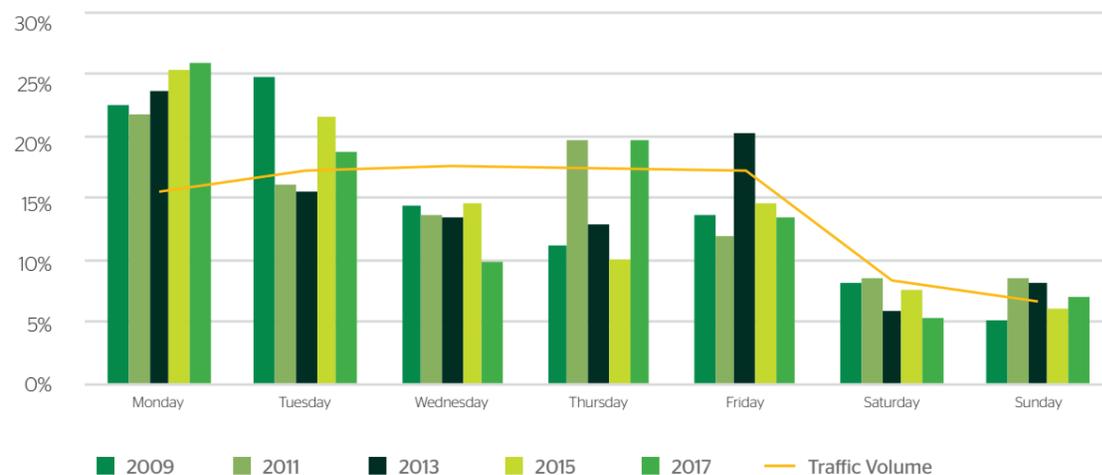
However, this is a result of a change in the classification of 'driver error' incidents to provide deeper insight into the behaviour resulting in the claim.

This resulted in 8.9 percentage point's worth of claims re-classified into the Driver Error category under the sub-cause of inappropriate following distance.

Had this reclassification not occurred, the proportion of claims attributed to inappropriate speed would have been midway between the 2013 and 2015 results.

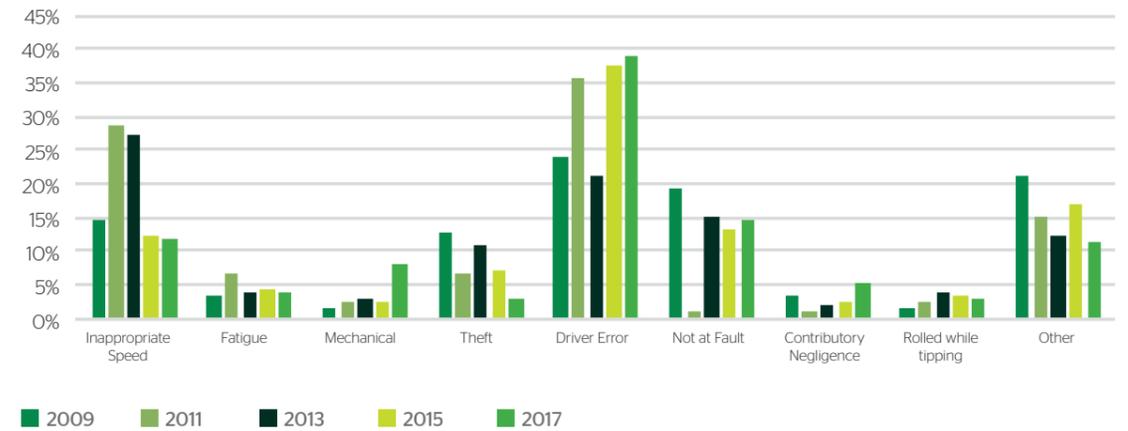
Looking at inappropriate speed incidents by day of the week, as with preceding years, a disproportionate number of speed related large losses occurred on Mondays. When corrected for traffic volumes, the risk of a having an inappropriate speed incident on a Monday was 66% higher than the weekly average. By contrast, the days with the smallest proportion of inappropriate speed crashes compared to traffic volume were Wednesday and Saturday, with risk of inappropriate speed crashes 44% and 36% respectively lower than the weekly average.

INAPPROPRIATE SPEED BY DAY OF WEEK



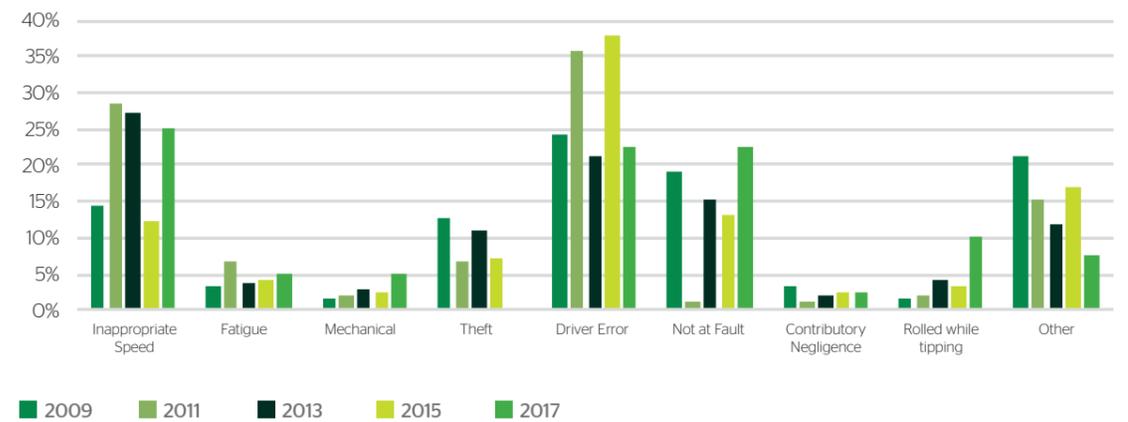
BY THE NUMBERS: RIGID TRUCKS

RIGID TRUCK CLAIMS BY CAUSATION



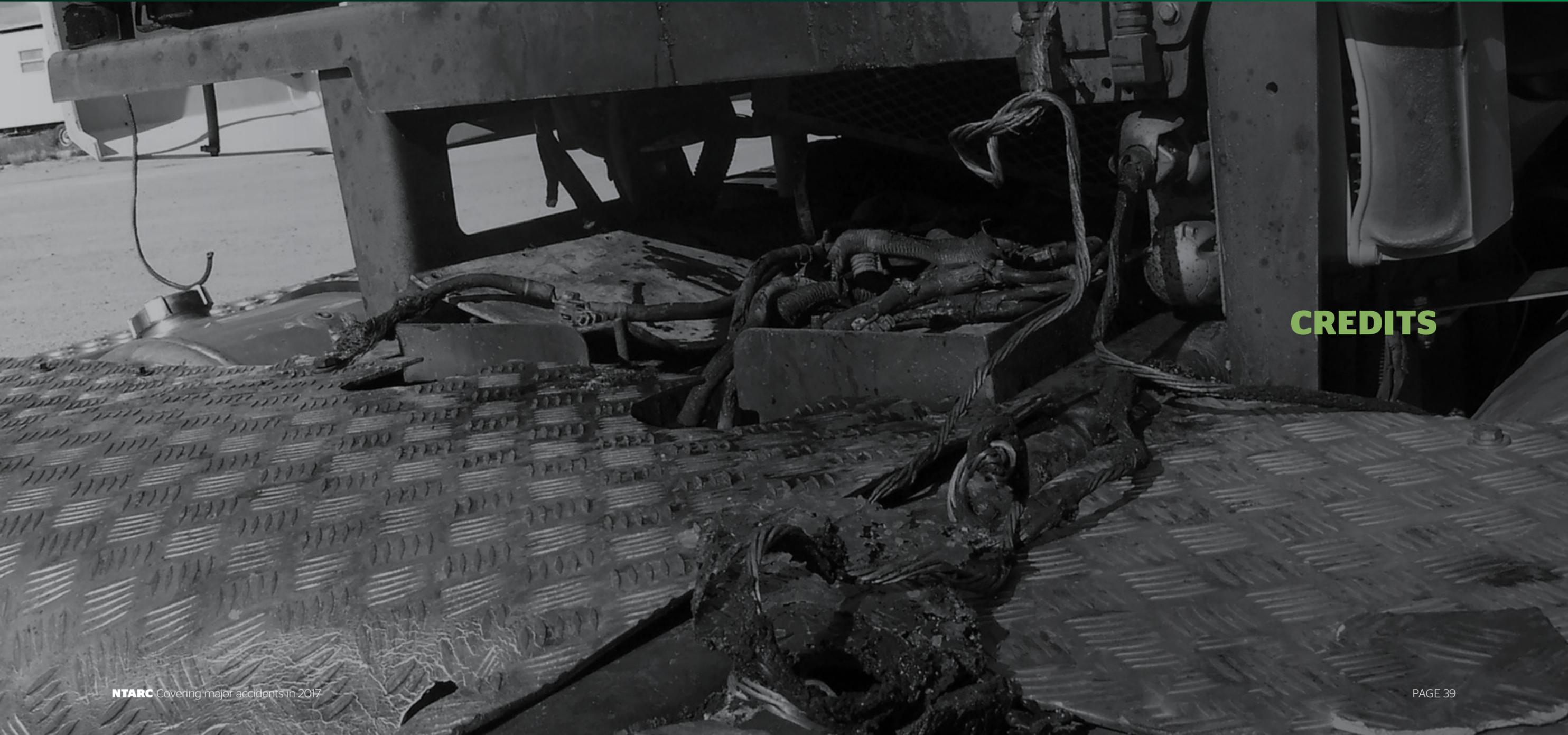
Examining the results for rigid trucks showed limited changes. There has been a small reduction in the proportion of losses resulting from theft and a sharp increase in the number of mechanical failure incidents. Of some concern is the ongoing high proportion of driver error losses; to some degree this reflects the typically urban environment, however this needs to be balanced by the fact that they are no more or less likely than the overall average to be involved in a not at fault incident. This suggests there may be room for improvement in rigid truck driver behaviour.

RIGID TRUCK AND DOG TRAILER CLAIMS BY CAUSATION



By contrast, when we look at the truck and dog category (which are overwhelmingly tippers operating in urban/metropolitan environments) we see there has been a sharp increase in the proportion of not at fault crashes. Although, the reversal of the improvement in inappropriate speed losses, which occurred in 2015, is of some concern..

04



CREDITS

CREDITS



THE AUTHOR ADAM GIBSON

Starting his career in the transport and logistics industry as a heavy vehicle consulting engineer, Adam developed a deep interest in the not just the how of heavy regulation, but also the why.

This led to Adam leading the NHVR's Roadworthiness Program which was one of the responses resulting from a spate of serious truck accidents. He then returned to the commercial world taking a role as an Engineer with Penske Commercial vehicles before joining the team at NTI.

Adam is passionate about achieving road safety outcomes through industry-led initiatives where the interventions to improve safety relate directly the specific hazard being addressed.



THE COMPANY

As Australia's Number 1 Truck Insurer, NTI prides itself on being a part of the transport industry.

It provides award winning service through a deep understanding of its customers and a commitment to putting itself in the customer's shoes when making decisions.

NTI is a foundation sponsor of the Australian Trucking Association and supports a number of important causes such as Women in Transport, the Burrumbuttock Hay Runners and research into Motor Neurone Disease.



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Kim is an industry expert specialising in transport and logistics. He has previously held positions as Transport Economist, and Manager of Transport Operations and Strategy for Australia's largest network Transport Operator before becoming a principal consultant and researcher in the field of freight analytics and productivity.

He has published over 100 research papers for major domestic and international clients and journals, and has worked with some of Australia's and Europe's leading transport regulatory agencies.

Kim is the National Chair for CILT-Australia and a Director of the Industrial Logistics Institute. He continues to be a fractional Principal Fellow with the Department of Infrastructure Engineering at the University of Melbourne since 2002.

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**MAJOR ACCIDENT
INVESTIGATION
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**COVERING
MAJOR
ACCIDENTS
IN 2017**

**20
19**

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