

**Submission  
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## **INQUIRY INTO HEAVY VEHICLE SAFETY AND USE OF TECHNOLOGY TO IMPROVE ROAD SAFETY**

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# INQUIRY INTO HEAVY VEHICLE SAFETY AND USE OF TECHNOLOGY TO IMPROVE ROAD SAFETY

*Staysafe (Joint Standing Committee on Road Safety)*

## SUBMISSION OF THE TRANSPORT WORKERS' UNION OF NEW SOUTH WALES

### 1 Introduction

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- (1) This is the submission of the Transport Workers' Union of New South Wales (**TWU**) to the inquiry of Staysafe (Joint Standing Committee on Road Safety) (**Committee**) into heavy vehicle safety and use of technology to improve road safety (**Inquiry**). This submission is authorised by TWU State Secretary, Richard Olsen.
- (2) On 16 January 2018, Hannah Ferguson, aged 19, and her boyfriend, Reagen Skinner, aged 21, had just enjoyed a summer break at Hannah's family home in Gulargambone. In the midst of their university holidays, the couple were returning to Dubbo along the Newell Highway when their car, at the time stationary in a convoy of vehicles stopped for roadworks, was ploughed into by a prime mover. The pair were killed instantly.
- (3) Nine ambulances and three helicopters attended the scene, described by the NSW Ambulance Service as "*absolute carnage*". Eleven others were injured. It was the same stretch of road where two young boys had died in a head on crash between their family's car and a B-double only eight months earlier.
- (4) Tragically, the accident was just the peak of what was a horrific 24 hours on NSW roads. Only the day before, one truck driver was killed and another injured in a fiery crash on the M1 Pacific Motorway south of Newcastle which involved three heavy vehicles, and two other truck drivers were killed near Grafton when their trucks collided head on later that same afternoon.
- (5) It is too early to determine the cause of these tragic crashes. What is clear, however, is that there is a safety crisis in the heavy vehicle industry and on our roads.
- (6) It is now beyond question that there exists an explicit link between rates of pay and methods of remuneration for truck drivers, and road safety outcomes in the road transport industry (including public safety). Too often drivers are forced to drive too fast and too long to meet impossible deadlines set by freight companies. Too often they are unable to even cover their costs, meaning they are often left without a choice but to drive unsafely and unsustainably just to make ends meet.
- (7) This is nothing new. The link between rates of pay and safety has been shown in academic research, coroner's reports and inquiries, conveyed by drivers in countless testimonies, and found to be the case by courts and tribunals time, and time, and time again<sup>1</sup>.
- (8) The NSW Minister for Roads and Freight is right to be "*concerned and disturbed*" about the level of accidents involving heavy vehicles in NSW.
- (9) However, if she is looking for a silver bullet in technology, she is not going to find it.

- (10) Simply stated, there will be no meaningful decrease in the road toll from heavy vehicle crashes without a solution that addresses the problems of unsafe rates and pressures on drivers which have long been endemic throughout the industry.

## **2 Road Toll – 1 December 2017 to 31 January 2018**

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### **2.1 The statistics**

- (1) Whilst a late addition to the terms of reference for this Inquiry, road safety, and, in particular, the road toll from heavy vehicle crashes in NSW, is the key issue with which the Committee must concern itself.
- (2) The heavy vehicle industry is Australia's deadliest.
- (3) The latest Safe Work Australia statistics reveal that in 2016, the transport, postal and warehousing industries accounted for more than a quarter of all workplace fatalities nationally, seeing 47 workers killed on the job that year<sup>2</sup>. Sadly, the proportion of total national workplace deaths attributed to the industry has remained relatively stable at 24 per cent over the ten-year period from 2007 to 2016<sup>3</sup>.
- (4) Of course, the heavy vehicle industry does not operate in a vacuum. Heavy vehicles interact with the general driving population on a daily basis on NSW roads and, as a result, fatal crashes involving the general public are a tragic, but inevitable, by product of this dangerous industry.
- (5) When the interaction between heavy vehicles and the general public is taken into account, the statistics only become more alarming.
- (6) While there has been a downward trend in deaths on NSW roads across the board in the past 20 years (including in fatal crashes involving heavy vehicles), heavy vehicles remain overrepresented in the fatal crash statistics compared to the number of those vehicles on the roads. In 2016, for example, 16 per cent of all fatalities on NSW roads involved heavy vehicles, despite heavy vehicles only making up 2.6 per cent of all vehicles registered in NSW and 8 per cent of total kilometres travelled by all NSW registered vehicles<sup>4</sup>.
- (7) In the past five to 10 years, there has been no significant reduction in the number of fatal crashes involving heavy vehicles on NSW roads.
- (8) Take, for example, the five-year period between 2012 and 2016. In NSW alone during that period there were:
- 270 fatal crashes involving articulated and heavy rigid trucks, averaging to 54 fatal crashes per year. These crashes resulted in:
    - 301 fatalities, averaging to 60 fatalities per year<sup>5</sup>; and
    - 6937 injuries, averaging to 1387 injuries per year. This includes 1993 serious injuries, or 399 serious injuries on average per year<sup>6</sup>.
- (9) Comparing those statistics to the most recent 12-month period shows that there has been a recent spike in the number of deaths resulting from heavy vehicle crashes.
- (10) In the 12 months ending 11 February 2018 there were 65 heavy vehicle truck crashes in NSW, six more than the previous 12 months and 11 above average. Those crashes resulted in the deaths of 79 heavy vehicle drivers and members of the wider public, 14 more than the previous 12 months, and 19 above average<sup>7</sup>.

- (11) In January 2018 alone, there were 10 fatalities from crashes involving heavy, heavy rigid and articulated trucks on NSW roads<sup>8</sup>. As already noted, five of those deaths occurred in a single 24-hour period between 15 and 16 January 2018.
- (12) At double the monthly average already, the January road toll from crashes involving heavy vehicles has set the tone for what is shaping up to be another tragic year on NSW roads.
- (13) We know that Australia's road freight task increases at an average of 5 per cent per annum. Total national road freight increased from 23 billion tkm in 1969-1970, to 212 billion tkm in 2014-2015. A third of that occurs in NSW alone<sup>9</sup>. It has been forecast that the total interstate road freight task will triple in the 25 years from 2007 to 2031, while total road freight tasks in capitals and other intrastate areas are set to double during the same period<sup>10</sup>. What this means is that there are now more heavy vehicles on our road than ever before.
- (14) While one fatality is too many, sadly, if current trends persist, the road safety crisis looks set to deepen.

## **2.2 Key contributors to road safety outcomes in the heavy vehicle industry**

- (1) As is often the norm, when a collision occurs, it is the driver of the heavy vehicle who ends up in the dock and, sometimes, ultimately behind bars. This narrative is often flamed by the media.
- (2) For example, much has been reported in the media about the driver of the truck involved in the Newell Highway crash which claimed the lives of two young university students in mid-January, in particular, the fact that he had previously been charged with traffic offences, including licence and speeding offences. He has now also been charged for his role in that fatal accident.
- (3) What is less often examined are what influences may be play behind the scenes which impact on the likelihood of such crashes occurring.
- (4) It is well known that there are a number of key factors which contribute to poor safety outcomes in the road transport industry, namely: speeding, fatigue (the two most common), drug use, poor vehicle maintenance, inattention and road or environmental conditions<sup>11</sup>.
- (5) Reference has already been made to the countless studies, and coroner, court and tribunal findings, which have recognised that many heavy vehicle drivers are incentivised or forced to engage in risky behaviours as a direct result of the economic pressures they face in their work<sup>12</sup>.
- (6) The transport industry is a price taking industry. Competition in the industry is strong and price is usually the main determining factor in deciding whether a company wins or loses a contract. With freight tasks increasing and the industry being ever more competitive, drivers are under increasing pressure to deliver their goods as quickly and cheaply as possible. In many cases there is simply an *"acceptance of non-viable rates, excessive and illegal working hours, and stressful and chronically fatigued drivers"*<sup>13</sup>.
- (7) The same body of academic, judicial and coronial evidence that confirms the relationship between remuneration and safety outcomes also confirms that the root cause of unsafe remuneration systems is the power imbalance between transport purchasers (clients) and transport suppliers. Economically powerful industry clients, like the major retailers, have the ability to unilaterally determine the price of transport services and, in many circumstances, key conditions relating to the performance of work.

- (8) As a consequence, drivers, who are obviously the very last link in the transport supply chain, have the weakest concentration of market power and must often take the wage or rate they are given or fail to receive work at all. In many instances they will receive a fixed level of remuneration to deliver goods by a set time with no regard as to whether this outcome is achievable in a safe way.
- (9) Because work is too often conditional on strict compliance with operators' directions and client deadlines, drivers are forced to make the shocking choice of either risking their safety and the safety of other road users by driving when fatigued, speeding, taking drugs or skimping on maintenance, or bearing the burden of severe economic loss.
- (10) TWU member, [REDACTED], describes his experience thus:
- "We're working long hours, six and seven days a week and [REDACTED] are cutting our rates. At the same time costs and overheads are going up. We don't have any legal rights. You feel pushed just to get the job done."*
- (11) A survey conducted by Macquarie University in 2016<sup>14</sup> illustrates the dangerous on-road behaviours that drivers are forced to engage in as a result of the economic pressures they are put under every day. The survey showed that:
- 82 per cent of drivers work longer than 50 hours per week; this includes almost two in five who report working over 60 hours per week;
  - 82 per cent of owner drivers are paid fixed, job-based rates, typically based on a flat rate for kilometre, pallet or weight, rather than time-based pay;
  - Many drivers are not paid for substantial components of their work: more than one third are not paid for their time waiting for their truck to be loaded, or for refuelling and cleaning their vehicle; more than one quarter are not paid for time spent unloading, queuing to reach the dock, and other activities around the yard or base;
  - 18 per cent of owner drivers feel they cannot refuse an unsafe schedule or unsafe load. Of those:
  - More than half report having no input into schedules for any trips. Most strongly believe that their schedules are too poor or very tight and do not meet fatigue law requirements. More than half believe that they cannot meet their schedules safely;
  - 19 per cent are likely to work over 80 hours a week; and
  - Over half earn below average net incomes.
- (12) A similar survey conducted by the TWU back in 2011 found that:
- 27 per cent of drivers feel they have to drive too fast;
  - Nearly 40 per cent feel pressured to drive longer than legally allowed; many say that the pressure comes directly or indirectly from the client (being the retailer at the top of the supply chain);
  - 48 per cent report almost one day a week in unpaid waiting time; this forces them to make up the time by either speeding or staying on the road longer; and
  - 56 per cent of owner drivers report having to forego vehicle maintenance because of economic pressure, the need to keep working or the high cost of repairs.

- (13) The experience of fatigue is a regular part of the work experience of many heavy vehicle drivers. Over a 15-year period, around 76 to 78 per cent of truck drivers rated fatigue a 'major' or 'substantial' problem. A 2008 national survey found: *"On average, NSW truck drivers work 62-hours per week which is much greater than the Australian full-time employee average of 43 hours per week. Alarming, 65% state they work more than 60-hours per week and 6.5% more than 100-hours"*<sup>15</sup>.
- (14) Drivers also report that there are not enough rest areas or road houses for them to utilise in order to manage their fatigue, and that roads which were, more often than not, not designed to accommodate the growing number of heavy vehicles which now travel on them, are falling apart underneath them<sup>16</sup>.
- (15) The latest trucking tragedies are a reminder of the lethal pressures in Australia's most dangerous industry.
- (16) But as the statistics show, the pressure on truck drivers does not just affect them and their families, it results in our roads being dangerous for all road users, from young people on their university holidays, to parents, children and the elderly.
- (17) These facts should not need to be repeated. The evidence establishing the explicit link between rates and methods of payment, and high risk on-road behaviours by heavy vehicle drivers has been around since at least 1991.
- (18) Yet, still, it is only drivers who are held to account when tragic collisions occur. Rarely the operators, and never the companies at the top of the supply chain who use those transport services and who continue to make the profits. It is the driver, who becomes another casualty of the heavy transport industry.
- (19) Members of the TWU remain frustrated and angry that the main causes of heavy vehicle related crashes are not being addressed by government.

### **3 Role of Compliance and Enforcement**

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- (1) NSW has the highest number of registered heavy vehicles of any state or territory, with the trend in heavy vehicle registrations in the State increasing. In the period between 2011 and 2015, total heavy vehicle registrations increased by 9.5 per cent, and between 2015 and 2016, there was a 3.5 per cent increase. The rate of growth in heavy vehicle registrations is outstripping that of cars, with registrations of those vehicles increasing by only 8.5 per cent and 2 per cent in the same period, respectively<sup>17</sup>.
- (2) As already noted, NSW roads carry a third of the total national freight volume, more than any other state or territory.
- (3) Disturbingly, NSW also holds the record for the most number of deaths from heavy vehicle crashes, topping all other states and territories in all but two of the past 10 years. On average, NSW accounts for a third of total national fatalities from heavy vehicle accidents<sup>18</sup>.
- (4) In the light of that, it is imperative that NSW takes the lead in heavy vehicle safety.
- (5) However, alarmingly, NSW has recently taken its foot off the pedal when it comes to compliance and enforcement.
- (6) It has been reported that there are now 34 fewer Roads and Maritime (**RMS**) Heavy Vehicle Enforcement Operations Inspectors than this time last year, a 15 per cent reduction of the total workforce<sup>19</sup>. Those Inspectors once performed targeted intercepts and inspections of heavy vehicles to assess compliance with road transport laws including load restraint, mass, speed limiter compliance,

driver fatigue and vehicle roadworthiness, with the aim of ensuring that all parties in the supply chain were held to account. A decrease in those resources now means that shonky operators are very much aware that if a vehicle is not up to scratch, it will probably go undetected.

- (7) In direct response to the deadly 24 hours on NSW roads over 15 to 16 January 2018, the NSW Government caused the NSW Police, in conjunction with the RMS, to carry out a very public compliance and enforcement operation dubbed 'Operation Rolling Thunder'. The crackdown which occurred on 1 February 2018 was reportedly Australia's largest ever heavy vehicle compliance operation, involving 300 NSW Police Officers and over 150 RMS Inspectors as well as agencies from the ACT, Queensland, Victoria and SA. Reports indicate that more than 5000 trucks were checked in less than 24 hours with more than 2000 defect notices ultimately issued and 26 drivers testing positive for drugs.
- (8) Whilst the TWU commends the Government for this initiative, it must be said that five lives were lost before the Government reacted. Further, notwithstanding the apparent success of the operation, the question needs to be asked: what now?
- (9) The RMS reports that it is building on the results of Operation Rolling Thunder with a further operation dubbed 'Operation Shield', this time targeting fatigue and speed limiter non-compliance. However, it is unclear how long Operation Shield is intended to run.
- (10) Apart from the fact that operations such as Operation Rolling Thunder are unlikely to be repeated on a regular basis given to the resources and (presumably) costs which were involved, it must also be noted that while truck drivers have legal responsibilities that must be met, focusing enforcement activities at the driver assumes that this action can alter behaviour (when there are strong pressures to evade) and fails to address the root cause of many serious safety problems.
- (11) It is seriously concerning that as deaths have increased, the quantum of enforcement aimed at addressing chain of responsibility considerations in NSW has decreased, with the result being that pressure has been further relieved at the top of the supply chain.
- (12) Coupled with the Turnbull Government's appalling 2016 decision to abolish the Road Safety Remuneration Tribunal (**RSRT**), the much-needed independent road safety watchdog, despite warnings that deaths from truck accidents would increase, it is tragic, but not at all surprising, that NSW has seen the spike in deaths from heavy vehicle crashes that it has.
- (13) Notwithstanding the fact that the Federal Government's own report found, after confirming the link between road safety and rates of pay of drivers, that the RSRT's Road Transport Order and Payments Order would have resulted in a 10 per cent and 18 per cent reduction in the number of heavy vehicle crashes, respectively<sup>20</sup>, the decision was taken to revert the \$4 million saved per year from the Tribunal's abolition to the National Heavy Vehicle Regulator (**NHVR**), a body which is powerless to set and enforce minimum rates or payment schedules.
- (14) While it may be hoped that the role and function of the NHVR to provide nationally consistent regulation of the heavy vehicle industry will aid explicit road safety initiatives, it is a fallacy to think that the NHVR can single handedly address the entire safety crisis in the road transport industry.

- (15) The NHVR propounds the idea of a chain of responsibility approach to heavy vehicle safety which aims to provide that “*everyone in the supply chain shares equal responsibility for ensuring breaches of the Heavy Vehicle National Law do not occur*”<sup>21</sup> and asserts that any part of the chain (including the retailer at the top) can be held legally liable such for breaches. It is another question altogether as to how likely it is that any such breaches will be prosecuted, or whether any at the top of the supply chain will be held to account.
- (16) The NHVR itself does not have the power to prosecute or enforce chain of responsibility offences. Any alleged breaches of the law still have to go through the court system. Given the difficulty and costliness of such a process, the chain of responsibility obligations under the Heavy Vehicle National Law, whilst the right approach, may at present be somewhat of a toothless tiger.
- (17) Whilst there is no independent body empowered to examine and address the economic factors in the industry causing unsafe practices on the roads, and enforce the law at all levels of the chain of responsibility, there will be no marked improvement to the tragic road toll caused by accidents involving heavy vehicles.
- (18) As noted, it is beyond doubt that there remains a crisis in the transport industry that is being caused right at the top of the supply chain, by wealthy retailers and manufactures financially squeezing operators and drivers thereby creating an incentive for, or even encouraging, unsafe on-road behaviours such as speeding, driving while fatigued and using illicit substances – the highest contributors to poor safety outcomes in the trucking industry. The high number of defect notices issued, and drivers detected driving under the influence of illicit drugs, during Operation Rolling Thunder should be proof enough that the industry remains a seriously dangerous one.
- (19) This problem must be addressed through regulatory intervention surrounded by strong policy. It requires strong leadership from government and a whole of government approach due to the interplay between transport law, workplace relations law and independent contractors/small business law. It also requires strong compliance and enforcement at all levels of the supply chain. This should be undertaken by an independent body which has the power to regulate and enforce minimum rates, payment methods and conditions across the industry and at every level of the supply chain to ensure that drivers, and all other road users, get home to their families at the end of the day.

#### **4 Vehicle Technologies**

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- (1) It is clear that technology, particularly with respect to heavy vehicles, is a key part of the NSW Government’s Road Safety Plan 2021. Disappointingly, the Plan makes no reference whatsoever to addressing the imbalance in the economic structures underpinning the heavy vehicle industry which cause or incentivise drivers to engage in risky on-road behaviours.
- (2) This, together with comments from the Minister suggesting that technology is “*so advanced, a driver can be driving and get an electric shock if they look away from the windscreen for more than two seconds*” goes to show how far off base the current Government is when it comes to understanding safety in the heavy vehicle industry.
- (3) Let us not mince words. The suggestion that it may be acceptable for any citizen to receive electric shocks in the course of performing their work is nothing short of barbaric.



- (4) But even at its best, the Government's focus on technology is simply another way of heaping all responsibility for heavy vehicle safety at the feet of drivers, instead of calling into account the actions of every player in the supply chain.

#### 4.2 Assistive technologies

- (1) As already noted, the safety crisis in the transport industry is fundamentally about the economic structures which underpin it.
- (2) Because of this, technology alone (in the absence of a solution which addresses unsafe rates and methods of remuneration) will not solve the road safety crisis in the heavy transport industry. Any conversation about the potential benefits of technology must occur with that limited potential in mind.
- (3) Of course, the TWU will always be supportive of measures which are genuinely aimed at, and capable of, assisting drivers to perform their work safely.
- (4) However, when discussing technology, it is here that a very clear distinction must be drawn between assistive and surveillance technologies. There is an obvious difference between technology which makes life easier, and technology that acts as big brother, watching a driver's every move – the latter being something which is of serious concern to the TWU's members.
- (5) Partial assist technologies, including lane departure warning systems, forward and reverse warning systems, automatic braking, cruise control and navigation systems, are limited by a number of factors, not least of which is their reliability.
- (6) A prime example of this can be seen in the car industry with the recent safety recall of just over 2000 Honda CR-Vs which had been fitted with collision-mitigating braking systems. The recall was due to the system misinterpreting some roadside furniture such as guard-rails and fences as obstacles that must be avoided. When that happened, the vehicle would apply the brakes as if an emergency was unfolding. Obviously, this had the potential to result in unsafe outcomes where the system called a false alarm causing the car to stop suddenly, notwithstanding there being no obstacle and without regard to surrounding traffic<sup>22</sup>.
- (7) The danger would only be amplified if this system was operating in a heavy vehicle, which is inherently more dangerous than a car due to sheer force and dynamics.
- (8) So, whilst technology such as automatic braking systems have potential safety benefits, those benefits will only manifest if the systems work flawlessly every time. We are simply not yet at that point. For that reason, a slower, more cautious approach must be adopted before any rollout of such technologies can occur in heavy vehicles.
- (9) That there is evidence that some partial assist technologies can actually increase driver error<sup>23</sup> should also give rise to some concern.
- (10) Further, the TWU has also heard from its members anecdotally that there is some concern about the potential for transport operators to become over-reliant on safety technologies, or over-confident about their capabilities, in continuing to push the load limits of their vehicles. The NHVR's productivity based standards now allow quad-axle B-double combinations to carry the equivalent of two 40 foot containers, with a gross combination mass of up to 77.5 tonnes. We already see mini road trains travelling every day on Pennant Hills Road in Sydney's north; companies are continually pushing the limits in terms of loads. Whilst increasing the size and load limits of heavy vehicles may mean fewer trucks on our roads, the bigger these vehicles get, so to the more dangerous

they become. It is therefore important that the interplay between technology and productivity standards is considered.

- (11) All these examples should, at the very least, give the Government pause for thought. It is simply not enough that the technology itself may be ready (though in some cases we are not yet seeing acceptable levels of reliability even in light vehicles). All the myriad potential flow on and side effects which may come with the introduction of any driver assist technologies into heavy vehicles must be carefully considered. It would be premature and reckless to mandate the installation of such systems in heavy vehicles before that occurs.

#### 4.3 Surveillance technologies

- (1) Telematics technology involves the capture of data within a vehicle and the subsequent use of that data both within the vehicle and remotely. It typically comprises an in-vehicle device containing a series of sensors and inputs linked to a back office that captures, sends, stores and analyses information electronically.
- (2) It allows companies to monitor almost everything a driver does. From how often they brake and when, to what g-forces they exert when turning, their GPS position, when they are accelerating, when they are stopped, how far they drive, and more.
- (3) The sheer amount of data that can be generated is enormous. The cost involved in installing such technology, let alone storing and analysing the data which is gathered is likely to be prohibitive for all but the largest transport operators. It will certainly be beyond reach for owner drivers and contract drivers who are responsible for all of their own operating costs and who, in many cases, barely earn enough to cover those costs as it is. [REDACTED] contract driver said about this:

*“There would have to be cost recovery in there for us. If you’re not remunerated in such a way to be able to afford those systems, and obviously it’s not just going to be a one-off cost, it has to be supported by someone financially during the year. If it was a cost that was pushed on us and there was no cost recovery mechanism for us, it would be hugely detrimental to my business and my bottom line. I already haven’t had a pay rise for seven years. I can’t absorb another cost.”*

- (4) Apart from the obvious cost implications, there are a number of questions which arise: Where is the data going to be stored and by whom? How is it transmitted? Who is going to analyse it and how? What will it be used for? How will it remain secure?
- (5) It is little wonder many drivers are nervous about the prospect of telematics technologies making their way into the heavy vehicle industry.
- (6) The Heavy Vehicle National Law, which came into effect in early 2016, currently recognises one type of telematics technology – electronic work diaries. From 2017, companies have been able to meet their compliance obligations with the NHVR by submitting driver activity that is collected by certified types of electronic work diaries. However, that technology is, at this stage, voluntary. Given the cost implications, it is unlikely that small companies or owner drivers will take it up without a mandate.
- (7) Some of the larger transport companies are also already using other types of telematics technologies in their fleets.

- (8) TWU member, ██████████, drives a Warnervale to Coffs Harbour return route five days a week. This sees him on the road approximately 11.75 hours per day. The truck he drives has been fitted with a retina scanning device that reacts if it detects that he has closed his eyes for more than approximately 1.2 seconds. This causes an alarm to sound in the cab and his seat to shake. The information is sent to a third party who stores and analyses the data for his employer, and that information may ultimately be sent to his employer. ██████████ reflects on that particular technology in the following way:

*“It’s not going to stop an accident. At the end of the day you’re a long way from home. There is not always somewhere to stop. Your manager can’t do anything to help you out there on the road. If I’m half the way to Coffs Harbour and the alarm goes off, what is the manager going to do? Come get me? Plus, if they tell a driver to pull over for 15 minutes, all that will do is cost schedules. Then it will come back to the driver down the line – can you make up 15 minutes, can you make up half an hour? It really just moves the problem down the line. As they say with safety you fix one issue but it creates five more.*

*The fact is that it doesn’t address the cause of why the driver is tired.*

*It’s not going to stop the guy who had the accident out in Dubbo who’s pushing to do a load, why I don’t know, whether he’s just conscious of the pressure from the company which you hear a lot. It comes down to financial pressures, scheduling, the whole lot. Technology is not going to stop him having an accident. If you’re that tired and you’re pushing that hard, a quick alarm in the cab and a quick jolt of the seat is not going to do anything.”*

- (9) The particular peculiarities of the road transport industry mean that technologies which can detect when a driver may be fatiguing are of limited potential. There are limited rest areas for drivers of heavy vehicles to be able to stop at to take a break, and drivers are usually too far from home to be able to easily return there to rest. Further, as pointed out by ██████████ any break a driver does take just adds time that will need to be made up somewhere else down the track, effectively compounding the problem of fatigue, rather than relieving it.
- (10) Further, reports suggest that some technologies may compound the stress and pressure drivers experience because they allow clients, consignors or managers to monitor drivers’ performance closely, tracking locations, distance travelled and time stopped in ‘real time’, and adjust payments accordingly<sup>24</sup>.
- (11) Such has been the experience of United Parcel Services (**UPS**) workers in the United States. Reports indicate that UPS utilises telematics technology to tightly control every move their workers make. Every second of a driver’s day is monitored, through GPS, the touch screens where customers sign for packages, and through the 200-odd sensors mounted on each truck. Supervisors know what time a driver got out of their truck to deliver a package, how long it took to get the customer’s signature, and how long it took them to drive to the next stop. They know each time a driver backs the truck up. They know about ‘harsh braking’ and the amount of time a truck is idling. This provides fodder for zealous managers who are able to go through any driver’s records and pick out a minute here and a minute there to question the driver about<sup>25</sup>. The reality of telematics for UPS drivers has been the ratcheting up of pressure, with drivers called to account for every perceived sin.
- (12) ██████████ contract driver and TWU member, ██████████, believes the impact on drivers would be similar here:

*“It would most definitely increase the pressure and stress on drivers to be under constant surveillance in the workplace and to know that these technologies could be used against them for disciplinary purposes. That could actually make things less safe.”*

- (13) Telematics technologies effectively enable the metrics-based harassment of workers<sup>26</sup>. When productivity and commercial concerns overtake any ostensible safety benefits, this is a huge concern. Even if telematics technology is initially intended to improve safety outcomes (though we fail to see how this will happen in any meaningful way), it is not a stretch to imagine that companies will soon find the temptation of being able to watch their employees’ every move too hard to resist.
- (14) A further and inescapable concern for drivers when it comes to telematics is privacy. Any introduction of such technology would need to come with clear guidelines as to exactly how the data gathered can and cannot be used. Even then, the threat of hacking looms large. [REDACTED] drives a truck installed with driver-facing cameras which are programmed to begin recording as soon as a driver hits the brakes or g-forces indicate that an accident (or near miss) is about to occur. He has expressed his concerns about that technology thus:

*“If I have a fatal, that’s the last footage of me. It goes back to this third party and that could be hacked and put on the internet, my family could see it. That concerns me a lot.”*
- (15) The major problem with telematics technology is that it simply collects data. It doesn’t measure skill. It also doesn’t account for random events (it won’t know, for example, that a driver has taken longer or driven more kilometres because he has been diverted due to road works or an accident).
- (16) These devices are particularly problematic where they do not address the underlying causes for drivers’ behaviour<sup>27</sup>. Quite simply put, they do not explain the “why”.

#### **4.4 Conclusion regarding technology**

- (1) There may be a role for technology to play in improving safety outcomes in the heavy vehicle industry.
- (2) However, the TWU has very serious concerns about the potential of telematics technology to add more stress and pressure to drivers who are already pushed to the limit.
- (3) Any steps taken by the Government to mandate the use of any type of technology in the heavy vehicle industry must be made in full consultation with the whole of the industry including, most importantly, the drivers who will be directly impacted by it.
- (4) However, putting those considerations to one side, it must be appreciated that such technologies, whatever their capabilities, are simply another example of a solution that focusses on the truck driver at the bottom of the chain of responsibility. They once again focus on treating a symptom of the problem (for example fatigue, by sounding an alarm and jolting a driver in their seat), without addressing the root cause of that symptom (why is the driver so tired they are falling asleep at the wheel in the first place?).
- (5) Further, so long as the economic imperatives or incentives exist, there will always be drivers and small operators who work out a way around such technologies. We already see this occurring with speed limiters. Though there

has been a requirement for heavy vehicles over 12 tonnes to be fitted with speed limiters since 1991, the National Transport Commission estimates that the tampering of speed limited heavy vehicles is in the range of 10 to 30 per cent, and for some heavy vehicle classes it may be even higher<sup>28</sup>.

- (6) It must be emphasised once again, a solution which does not address the reasons why a driver may engage in unsafe on-road behaviours will not result in any meaningful reduction to the road toll from heavy vehicle crashes.
- (7) It is clear that the current NSW Government has stars in its eyes about the magical fix-all potentials of technology. But we urge the Minister and her Government to come back down to earth. The fact is that you can have all the technologies in the world and risky behaviour will still occur so long as the economic incentives and imperatives exist.

## **5 Conclusion**

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- (1) January was a dark month for the heavy vehicle industry and the wider NSW public. Five people were killed in heavy vehicle-related crashes on NSW roads. Five people, in three crashes, in the space of only 24 hours.
- (2) The heavy vehicle industry is an essential component of a productive NSW economy. Every day there is a growing number of trucks on the roads, and the freight task is ever increasing.
- (3) Yet the economically powerful industry clients continue to hold the reigns when it comes to pricing, and many drivers continue to be left with no option but to drive unsafely and unsustainably just to make ends meet.
- (4) No amount of retina scanning, seat jolting or electric shocking of drivers is going to address the economic imbalance that underpins the heavy vehicle industry. And until this occurs, there will be no meaningful decrease in the road toll from heavy vehicle crashes.
- (5) What is urgently needed is a package of reforms that work together to attack the problems in the road transport industry at their root. The establishment of an independent tribunal that can examine, set, and enforce minimum rates and payment methods for drivers and enforce heavy vehicle law compliance at all levels of the chain of responsibility is a crucial part of this solution.
- (6) As long as the Government continues to ignore the real issues in favour of inadequate, driver-blaming excuses, the NSW road toll rests heavy on its shoulders.

**23 February 2018**  
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<sup>1</sup> For example:

- *Safe Payments: Addressing the Underlying Causes of Unsafe Practices in the Road Transport Industry*, the National Transport Commission with the Honourable Lance Wright QC and Professor Michael Quinlan, October 2008:

*“This Review finds that the overwhelming weight of evidence indicates that commercial/industrial practices affecting road transport play a direct and significant role in causing hazardous practices. There is solid survey evidence linking payment levels and systems to crashes, speeding, driving while fatigued and drug use. The evidence has been accepted and indeed confirmed by Government inquiries, coronial inquests, courts and industrial tribunal hearings in Australia over a number of years. The association between remuneration and safety applies to both employed and owner drivers.”*

and

*“Economic factors create an incentive for truck drivers to drive fast, work long hours and use illicit substances to stay awake. These economic factors include:*

- *Low rates of pay; incentive based payment methods (such as per kilometre or per trip);*
  - *Unpaid working time; and*
  - *Other factors include the hyper-competitive nature of the industry and the low bargaining power faced by drivers.*
- *National Road Freight Industry Inquiry, Report of Inquiry to the Minister for Transport, Commonwealth of Australia, (1984), Canberra;*
  - *Long Distance Truck Drivers: On road performance and economic reward*, December 1991, Federal Department of Transport and Communications:

*“Any deviation from a fixed salary tends to encourage practices designed to increase economic reward which are not synergetic with reducing exposure to risk”.*

and

*“The Federal Department of Transport and Communications (Commonwealth) study into on-road performance and economic reward found: ‘It is the rate per se which acts to stimulate road practices in various forms in order than an acceptable level of total earnings (net of truck-related expenses) is obtained. Any deviation from a fixed salary tends to encourage practices designed to increase economic reward which are not synergetic with reducing exposure to risk.*

- *Beyond the Midnight Oil, An Inquiry into the Management of Fatigue in Transport*, House of Representatives Standing Committee on Communication, Transport and the Arts, October 2000, Canberra:

*“Risks are compounded by the commercial imperative on transport operators to maximise the return on their investment, the demands of customers and by the pressure this places on transport workers to undertake longer hours with fewer rest breaks.”*

- Professor Michael Quinlan, *Report into Safety in the Long Haul Trucking Industry*, A report Commissioned by the Motor Accidents Authority of New South Wales, 2001, Sydney:

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*“Customer and consignor requirements on price, schedules and loading/unloading and freight contracts more generally, in conjunction with the atomistic and intensely competitive nature of the industry, encourage problematic tendering practices, unsustainable freight rates and dangerous work practices.”*

- R Johnstone, ‘The Legal Framework for Regulating Road Transport Safety: Chains of Responsibility, Compliance and Enforcement’, March 2002, National Research Centre for OHS Regulation, the ANU;
- C. Jones, J. Dorrian and D. Dawson, ‘Legal Implications of Fatigue in the Australian Transportation Industries’ (2003), 45 *JIR* 344 at 351;
- *WorkCover Authority of NSW v Hitchcock* (2005) 139 IR 439, per Walton J:

*“30 The evidence demonstrated that fatigue is a significant risk to the safety of long-haul truck drivers and to anyone on or in the vicinity of the highway. The evidence also demonstrated that the regulatory system established to avoid the risk of fatigued truck drivers was not wholly effective: the drivers who gave evidence at the trial were unanimous in their opinion that all drivers knew various ways of "beating the system", and that this was simply a necessary part of their job. Indeed, Mr Richard O'Neill, Safe-T-Cam Co-ordinator for the RTA, agreed under cross-examination that truck drivers use various techniques to avoid Safe-T-Cam sites. The following paragraph from one of the character testimonials (written by a long-haul driver of 9 years' experience) annexed to Mr Hitchcock's affidavit is illustrative of the point:*

*In an industry where there are poorly maintained trucks, impossible deadlines, and rampant disregard for the law, it is a pity that Jim Hitchcock will no longer be involved in the industry. [Emphasis added].*

*31 In the case of the Company's operations, it could be said that the regulatory system was almost wholly ineffective to avoid the risk of fatigued drivers: the Company's entire system relied upon abuse of the log-book regime. Furthermore, the evidence suggested that work practices in breach of the regulatory system were not limited to the Company.*

*32 Moreover, a large number of long-distance truck drivers die each year in road accidents in New South Wales - during these very proceedings, one of the witnesses (a long-haul truck driver) died in a highway accident - and a proportion of these accidents is fatigue-related.”*

- *R v Randall John Harm*, District Court of New South Wales, 26 August 2005, per Graham J:

*“In the present matter, the statement of facts refers to safety cams and log books. Restrictions on the maximum speed of heavy vehicles have also been implemented. Despite those measures, heavy vehicle truck drivers are still placed under what is, clearly, intolerable pressure in order to get produce to the markets or goods to their destination within a time fixed, not by any rational consideration of the risks involved in too tight a timetable, but by the dictates of the marketplace. Or, to put it bluntly, sheer greed on the part of the end users of these transport services. The time has come when those who are the beneficiaries of the interstate transport industry must take some blame for what happens at the sharp end of the interstate transport industry. The drivers are put under intolerable pressure. They drive when they are too tired, and when that becomes too difficult, they take drugs to try and prolong the state of awakening, albeit with risks that it can impede their concentration and actually make things worse.*

*When a collision occurs, such as happened here, who ends up in the dock? Who ends up behind bars? Not the operators. Not the transport companies. Not the big*



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*corporations who are the people who use those transport services. But the driver. It's the driver who goes to gaol. The companies still make the profits. The drivers become another casualty of the heavy transport industry. Their lives are ruined, in many ways just as badly as many of the victims' lives are ruined, by the imperative greed which lies at the heart of the interstate transport industry. Case after case in the Courts demonstrates the inadequacy of the government's response to these problems and the inadequacy of the transport industry's own response to these problems."*

- NSW Deputy Coroner Dorelle Pinch expressed the consequences of this heightened 'exposure to risk' in her 2005 findings regarding the tragic deaths of a number of employee drivers Anthony Forsythe, Barry Supple and Timothy John Walsh. The Deputy Coroner highlighted the impact of inadequate rates:

*"As long as driver payments are based on a (low) rate per kilometre there will always be an incentive for drivers to maximise the hours they drive, not because they are greedy but simply to earn a decent wage."*

- In *Re Transport Industry – Mutual Responsibility for Road Safety (State) Award and Contract Determination (No 2)* [2006] NSWIRComm 328, the Full Bench of the Industrial Relations Commission of NSW said:

*"We consider that the evidence in the proceedings establishes that there is a direct link between methods of payment and/ or rates of pay and safety outcomes";*

The Full Bench also noted that the following are characteristic of the heavy transport industry:

- (a) there is widespread non-compliance with award and contract determination provisions and, in particular, underpayment of wages (a view supported by the Executive Director of the NSW Road Transport Association, Martin Iffland);*
- (b) it is not uncommon for transport companies, which themselves would not engage in conduct in breach of industrial instruments, to subcontract work of marginal viability to other transport companies, which are prepared to breach industrial instruments in order to make a profit;*
- (c) labour costs are the most significant component of transportation costs and there is an inherent incentive to achieve savings through non-compliance with industrial instruments or through the engagement of owner drivers or small fleet owners who are prepared to "do what it takes" to make the work profitable;*
- (d) the competitive pressures in the long distance sector have resulted in a situation where the major transport operators perform only a fraction of the work in the industry with the rest being contracted out;*
- (e) most companies performing long distance work resist enterprise bargaining because of the likelihood that an enterprise bargaining arrangement will price them out of the market by requiring the payment of labour costs measured against yardsticks other than that of financial viability;*
- (f) there is a link between remuneration and safety issues such as excessive hours of work;*
- (g) commercial pressures, most notably from major retailers, have intensified, resulting in the major transport companies tendering for contracts at very low rates and leading to the result that they subcontract out any work that they cannot perform profitably. Commercial pressure is also exercised by major retailers in the form of directed delivery schedules placing stress and, at times, unrealistic expectations on the driver actually performing the work;*
- (h) major retailers refuse to take responsibility for the consequences of the time restrictions that their delivery systems impose on subcontractors and major transport operators themselves contract out responsibility for the work and yet resist being called to account when things go wrong further down the chain;*
- (i) the transport industry is characterised by chains of successive contracting out of work with commercial power decreasing with each successive step; and*
- j) those higher up the chain often contract out work for the express reason of transferring responsibility for the safe performance of the work to others.*

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Andrew Villis, former driver, gave the following evidence to the NSW Industrial Relations Commission in that case:

*“When I was required to perform excessive hours I would sometimes experience a state of mind that I can only describe as hallucinations, which I considered to be due to sleep deprivation. I would ‘see’ trees turning into machinery, which would lift my truck off the road. I ‘saw’ myself run over motorcycles, cars and people. On one occasion I held up the highway in Grafton while waiting for a truck which was not there to do a three point turn (I was radioed by drivers behind me asking why I had stopped). I estimate that I had experiences like these roughly every second day. They were not an uncommon thing for me.”*

Professor Michael Belzer gave the following evidence before the NSW Industrial Relations Commission in that case:

*“Higher pay produces superior safety performance for firms and drivers. The precise driver-level study of Hunt suggests this relationship may be as high as 1:4”*

and

*“Every 10% more that drivers earn in pay rate is associated with an 18.7% lower probability of crash, and for every 10% more paid days off the probability of driver crashes declines 6.3%”.*

Officers of the NSW Road Transport Association gave the following evidence in that case:

*Q: Can I give an example? If a company operates a payment system which rewards drivers not by time worked, but for the completion of the trip and that system doesn't adequately remunerate the driver for the time worked, that might lead to a result where the driver simply tries to complete the work as quickly as he or she can in order to maximise their income. Is that right?*

*A: That's right, I agree with that.*

- ‘Pay Incentives and Truck Driver Safety: A Case Study’ (January 2006), *Industrial and Labor Relations Review* (59. Ind. & Lab. Rel. Rev. 205):

*“The pay increase influenced safety by modifying the behaviour of current drivers. The data indicate that drivers had better crash records after the pay increase, when the analysis controls for demographic, occupational and human capital characteristics.”*

- Rodriguez, DA, Targa, F & Belzer MH, ‘Pay Incentives and Truck Driver Safety: A Case Study’, *Industrial and Labour Relations Review*, Vol 59, No. 2, January 2006:

*“A 1% increase in pay rates from median level leads to a 1.33% decrease in crash risk, for those drivers currently receiving the industry median award. Extrapolation of the U-shape “pay incentive to truck driver safety” suggests increasing pay 10% to the median level can approximately reduce crash probability by around 20%.”*

- Professor Michael Belzer, statement in the National Transport Commission Report - *Safe Payments: Addressing the Underlying Causes of Unsafe Practices in the Road Transport Industry*, 2008:

*“The point estimates indicate that if mileage rate were to increase to \$0.37 a mile, drivers would reduce their weekly hours to be in compliance with current regulations. At this rate, drivers are being compensated at a rate sufficient for them to be able to satisfy their income requirements without being induced to work in excess of mandated law.*

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- Professor Michael Belzer, excerpt from *'The Economics of Safety: How Compensation Affects Commercial Motor Vehicle Driver Safety'*, 2011:

*"Higher driver pay is associated with safer operations. Clearly the more drivers are paid, and the more they are paid for their non-driving time, the less likely they are to have crashes ... if the fundamental exigencies of markets work at all, then cargo owners' need for lower price will lead to a race to the bottom and safety will suffer. Because economic forces are involved, economic solutions must be considered."*

- Dr Angela Wallace, Professor Jeremy Davey and Mr Jason Edwards, Centre for Accident Research and Road Safety – Qld, Queensland University of Technology, *'Safety Culture in Supply Chains: Customer is King'*, 2012;
- Ann Williamson and Rena Friswell, 'The effect of external non-driving factors, payment type and waiting and queuing on fatigue in long distance trucking' (2013), *Accident Analysis Prevention* (58), 26-34;
- A/Prof. Louise Thornwaite and Dr Sharon O'Neill, *'Evaluating Approaches to Regulating WHS in the Australian Road Freight Transport Industry'* (2016), Final Report to the Transport Education, Audit and Compliance Health Organisation Ltd (TEACHO).

<sup>2</sup> *'Work-related Traumatic Injury Fatalities, Australia'*, 2016, Safe Work Australia, see <https://www.safeworkaustralia.gov.au/system/files/documents/1710/work-related-traumatic-injury-fatalities-report-2016.pdf>, p 12.

<sup>3</sup> Ibid, p 13.

<sup>4</sup> For proportion of total deaths, see [https://bitre.gov.au/publications/ongoing/files/Road\\_Trauma\\_Australia\\_2016\\_rev.pdf](https://bitre.gov.au/publications/ongoing/files/Road_Trauma_Australia_2016_rev.pdf) and [https://bitre.gov.au/publications/ongoing/files/Road\\_Trauma\\_Involving\\_Heavy\\_Vehicles\\_2016\\_III.pdf](https://bitre.gov.au/publications/ongoing/files/Road_Trauma_Involving_Heavy_Vehicles_2016_III.pdf), for proportion of registered vehicles, see [http://www.rms.nsw.gov.au/about/corporate-publications/statistics/registrationandlicensing/tables/table112\\_2016q4.html](http://www.rms.nsw.gov.au/about/corporate-publications/statistics/registrationandlicensing/tables/table112_2016q4.html).

<sup>5</sup> Department of Infrastructure and Regional Development (Cth), Bureau of Infrastructure, Transport and Regional Economics, Statistical Report, *Road trauma involving heavy vehicles: 2016 statistical summary*, see [https://bitre.gov.au/publications/ongoing/files/Road\\_Trauma\\_Involving\\_Heavy\\_Vehicles\\_2016\\_III.pdf](https://bitre.gov.au/publications/ongoing/files/Road_Trauma_Involving_Heavy_Vehicles_2016_III.pdf).

<sup>6</sup> Transport for NSW, Centre for Road Safety, Road Crash Analysis, NSW Heavy Truck Fatal Crashes, see [http://roadsafety.transport.nsw.gov.au/downloads/dynamic/weekly\\_stats/heavy-truck-fatal-crashes.pdf](http://roadsafety.transport.nsw.gov.au/downloads/dynamic/weekly_stats/heavy-truck-fatal-crashes.pdf).

<sup>7</sup> Ibid.

<sup>8</sup> Monthly Bulletin of Preliminary Traffic Crash Data, January 2018, see <http://roadsafety.transport.nsw.gov.au/downloads/dynamic/nsw-road-toll-monthly.pdf>, p 3.

<sup>9</sup> Department of Infrastructure and Regional Development, Bureau of Infrastructure, Transport and Regional Economics, *Australian road freight estimates: 2016 update*, see [https://bitre.gov.au/publications/2016/files/is\\_079.pdf](https://bitre.gov.au/publications/2016/files/is_079.pdf)

<sup>10</sup> David Gargett and Afzal Hossain, Bureau of Infrastructure, Transport and Regional Economics, *Road freight estimates by state / territory*, Australasian Transport Research Forum 2008.

<sup>11</sup> A/Prof. Louise Thornwaite and Dr Sharon O'Neill, *'Evaluating Approaches to Regulating WHS in the Australian Road Freight Transport Industry'* (2016), Final Report to the Transport Education, Audit and Compliance Health Organisation Ltd (TEACHO).

<sup>12</sup> Above n 1.

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<sup>13</sup> Caire Mayhew and Michael Quinlan, 'Economic pressure, multi-tiered subcontracting and occupational health and safety in Australian long-haul trucking' (2006), *Employee Relations*, Vol. 28, No. 3, p. 255.

<sup>14</sup> Above n 11.

<sup>15</sup> Australian Rotary Health Research Fund, 'Health Survey of the NSW Transport Industry', 2008.

<sup>16</sup> Above n 11.

<sup>17</sup> Australian Bureau of Statistics, Motor Vehicle Census, Australia, 31 January 2016.

<sup>18</sup> Above n 5.

<sup>19</sup> Alexandra Smith, "Shockingly irresponsible": fewer truck inspectors as deaths rise', *Sydney Morning Herald*, 21 January 2018, see <http://www.smh.com.au/nsw/shockingly-irresponsible-fewer-truck-inspectors-as-deaths-rise-20180121-h0lo7l.html>.

<sup>20</sup> 'Review of the Road Safety Remuneration System: Final Report', prepared by PricewaterhouseCoopers in its capacity as advisor to the Commonwealth Department of Employment, January 2016.

<sup>21</sup> <https://www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility/about-the-chain-of-responsibility>.

<sup>22</sup> 2012 Honda CR-V used car review, drive.com.au, see <https://www.drive.com.au/used-car-reviews/2012-honda-crv-used-car-review-20160301-gn771s.html>.

<sup>23</sup> Christian Seabaugh, 'IIHS Finds Lane Departure Warnings May Cause Accidents, Adaptive Headlights Do No' (2012), see <http://www.automobilemag.com/news/iihs-finds-lane-departure-warning-may-cause-accidents-collision-avoidance-and-adaptive-headlights-dont-154175/>; Raja Parasuraman, 'Humans and Automation: Use, Misuse, Disuse, Abuse' (1997), *Human Factors* 39(2), pp. 230-23.

<sup>24</sup> Lund, J., and Wright, C., 'More pain, less gain: New compensation systems for grocery truck drivers', *Labour Studies Journal* 29(2), p. 8.

<sup>25</sup> <http://labornotes.org/2013/03/harassment-issue-ups-bargaining-big-brown-becomes-big-brother>

<sup>26</sup> <https://www.thenation.com/article/these-workers-have-new-demand-stop-watching-us/>.

<sup>27</sup> Above n 11.

<sup>28</sup> National Transport Commission, *Speed Compliance of Heavy Vehicles: Final Proposal and Regulatory Impact Statement* (2007).