

# TrackSAFE – Heavy Vehicle Driver Behaviour at Railway Level Crossings Follow Up Qualitative Research

Final Qualitative Report  
September 2018



# Contents

Topic	Page
Background	3
Research objectives and target audience	4
Methodology	5
Target audience overview	6
Key findings and recommendations	7
Perceptions of safety on NZ roads and railway level crossings	12
Railway level crossings (experience, use, safety, making railway level crossings safer)	16
Railway level crossing safety communication (spontaneous and prompted messaging and communication channels)	23
Verbatim comments	41

# Background

- TrackSAFE is a charitable trust established to raise awareness about rail safety in New Zealand and to educate the public on how to keep themselves safe around tracks and trains. Key activities involving education and awareness raising activities include:
  - - Rail safety advertising
  - - Publicity and media relations
  - - Awareness raising events and campaigns
  - - Promoting best practice safety education to schools and the rail industry.
- A key area of concern is heavy vehicle driver behavior at rail level crossings.
- A heavy vehicle awareness campaign was last conducted in 2009.
- TrackSAFE now wants to conduct research to inform a future awareness and education communications campaign among heavy vehicle drivers.

# Research objectives and target audience

The **objectives** for the research are to:

- understand how heavy vehicle drivers' perceive and regard the risk around railway level crossings
- explore current behaviours around railway level crossings, and
- identify key messages that will support safer heavy vehicle driver behavior around railway level crossings.

The **target audience** for this research is heavy vehicles drivers including:

- Concrete trucks
- Milk tankers
- House moving vehicles
- Caravans
- Logging trucks
- General haulage vehicles
- Dangerous goods vehicles
- Stock truck and trailers
- Farm vehicles and buses (including school buses)

# Methodology

The **research approach** included quantitative and qualitative methods.

- An initial online quantitative survey was conducted in Autumn 2018 to measure heavy vehicle drivers' knowledge and behaviours.
- This was followed up by qualitative research to explore the underlying reasons for the held perceptions, attitudes and knowledge.

## Sample structure

Three focus group discussions were held with heavy vehicle drivers from across the target audience.

## Timing

- Fieldwork was conducted on Tuesday 28<sup>th</sup> August in Auckland, Thursday 30<sup>th</sup> August in Christchurch and Tuesday 4<sup>th</sup> September in Palmerston North.

## Reporting

This document contains the main findings from the follow up qualitative research and includes deidentified verbatim comments to illustrate key points. A separate report contains the online quantitative findings.

**Note to reader:** The findings in this research are qualitative which means they are not statistically robust. However, when combined with the findings from the online survey, we are confident that the themes and findings discussed here are representative of the HGV target audience.

# Target audience - overview

- Most had long histories / many years experience driving HGV's; 40+ years in some instances.
- Respondents were primarily male, but included three females in Christchurch.
- They mostly enjoyed their jobs and were proud of the work they did. However, some were a little embittered; claiming there is a lack of understanding and respect for drivers and the job they do among the NZ population.
  - *"We aren't all just dumb truck drivers, but you get the feeling that is how people see you."* (Christchurch)
- Respondents drove (and had driven) a wide range of size and type of vehicle.
- They drove for leisure (tour buses), education (school buses) military,, commercial (milk tankers) and private purposes.
- They were contractors, owner operators and employers and employees.
- All participants also drove smaller vehicles, including a few who drove motorcycles. They had experience and empathy across size and type of vehicle and drove accordingly. For example, they knew when / where HGV drivers could or could not see them and that it is difficult for trucks to stop and pull away quickly, so give them priority at intersections and roundabouts and make sure they can be seen.
- As discussed later in this report, drivers believed that a greater understanding of the challenges facing HGV drivers among the NZ population, will be beneficial for increasing safety on NZ roads generally and at railway level crossings specifically.
  - *"I know that car drivers don't see motorbikes and truck drivers can't see motorbikes, so when I am on my bike, I pretend I am invisible. Better to give way when it is your right of way than end up dead."* (Christchurch)

# Key findings and recommendations



# Key findings and recommendations

## Road safety

- HGV drivers do not think NZ roads are generally safe, though this is as much a result of the poor standard of NZ driving – speeding, dangerous overtaking, indecisiveness, texting etc – than the road network itself. Notwithstanding, there are many roads in NZ which are sub-standard, there is an increasing amount of traffic, trucks are getting longer and there has been failure to align road / rail planning and infrastructure.
- Compounding the danger is the fact that most motorists have no understanding or comprehension of the challenges of driving a HGV and why drivers take the actions they do.

## Railway level crossing safety

- Railway level crossings, in contrast, are generally considered safer than roads, though this is dependent on the type and location of crossing and on driver experience and situational awareness. New or experienced, tired or distracted drivers do make mistakes and on unmarked or dangerous level crossings, the results can be fatal.

- HGV drivers are acutely aware of the dangers associated with railway level crossings. The absence of warning / safety mechanisms, poor visibility, road camber and surface, the angle of the track and road and the distance between intersections and railway tracks are well known hazards and have been for a long time. They have developed strategies to try to make crossing safer, including using spotters, taking alternative routes and stopping, looking and listening .... But this can be in vain if visibility is poor and drivers are forced to stop with their rig on the railway tracks.
- While driver error and inattention are to blame for accidents and near misses on occasion, continued failure to address dangerous crossings frustrates and angers HGV drivers. Railway level crossings with a short distance between the road and the tracks are of most concern as, in many situations, whatever action drivers take carries with it some inherent danger. They worry that this will only get worse as more, longer trucks are on NZ roads and the number of trains increases.

# Key findings and recommendations

## Making railway level crossings safer

- When asked what simple steps drivers themselves could make to increase safety at level crossings or what advice they would give new or inexperienced drivers, drivers suggested three key factors:
  - Stop, look and listen – take it slowly and keep looking and looking and looking ...
  - Focus on the task at hand – do not be put off by the radio other motorists
  - Do your research – educate yourself - take time to plan and know your route and your vehicle.
- HGV drivers do not believe the onus or responsibility is on them entirely though. While they have a personal, vested interest in keeping their driving skills up to scratch and to know their routes and their vehicle, they believe it will take a cohesive and joint effort from central and local Government, rail, roading and trucking organisations, NZ Police etc. to improve railway level crossing safety. They have a multitude of suggestions how things might be improved in the interim, however, via:

- Improved visibility.
- Improved driver education; HGV drivers and the general public.
- Improved communication and signage
- Improved use of technology, including satellite navigation systems (Apps) which alert drivers to dangerous crossings.
- Infrastructure improvements, including better collaboration between road, rail and trucking organisations and planners.

## Messaging and communication

- HGV drivers are keenly aware of the dangers they and their contemporaries face using railway crossings every day. This is an important consideration when developing a communication campaign.

# Key findings and recommendations

- There is a strong sense of kinship and camaraderie among HGV drivers and they do not take kindly to being treated like ‘dumb truck’ drivers or feeling they are being blamed for NZ’s increasing road (and rail) accident toll.
- Many have lost friends and colleagues through accidents which were not their fault, so the **tone** of any campaign must be sensitive to drivers’ frustrations, sadness and anger. If not careful, TrackSAFE may run the risk of provoking drivers’ ire and derision if they perceived they are being blamed or criticised for accidents or poor decision making which is the result of well documented, long standing problems.
- Clear, easily understood messaging which doesn’t blame or preach, which isn’t too clever or obscure and which is not too busy or cluttered is preferred. The approaches which worked best in this research included:
- **An instructional approach**, which gives simple, clear and direct messages to stop , look and listen for trains and which reminds drivers that trains cannot stop are good reminders and reinforces (or should do) existing behaviour at railway level crossings.
- Reminding drivers to **‘expect trains’ (anytime)** aligns with their experiences of trains coming out of nowhere and of the speedy, silent and stealthy nature of trains. One driver commented that trains are the size of a house, yet still invisible.
- **Stating the facts** i.e. that trains can’t stop, that every near miss is a near hit and reminding drivers of the consequences of being hit by a train is not newsworthy, but a simple statement and reminder of the facts. The secondary or subliminal messaging is to ... stop, look and listen for trains .
- While some drivers liked the idea behind using **emotional or leisure references** to encourage safe railway crossing behaviour, the messaging is more complex (subliminal) and less of a direct call to action than some of the more instructional or factual approaches.
- **Graphic, post collision imagery** is shocking and impactful wake-up call to take care. However, while this approach clearly demonstrates the outcomes of not taking safe or precautionary action around level crossings, it does less to say what could / should have been done to avoid the collision. This approach may work best along side or in addition to more factual and instructional messages.

# Key findings and recommendations

- There is also potential for generic messaging to be supported or supplemented with something aimed more directly at HGV drivers. Ideally, this needs to be cleverer and memorable; potentially, **slightly risqué and use tongue in cheek or truck-ie humor**, which they will be tempted to share with colleagues. Sexual innuendos, for example, Is your rig too big? And Size Matters (in reference to short distances between road intersections and tracks) may not be deemed politically correct, but appeal to truck drivers' 'dirty' minds' and more bawdy senses of humor. (They would not necessarily expect to see these types of ads on roadside billboards, but more in HGV Driver and trucking specific media and publications).
- **Technology**, including online and social media and Apps to warn HGV and train drivers and, potentially, to activate traffic signals to slow down traffic so HGV's can pull on to the road. The TruckR App has definite appeal if dangerous crossings can be included and drivers can be alerted via voice alerts; texts are distracting and dangerous.

**Note** –Drivers feel that KiwiRail/ NZTA / MoT et al have the data to enable them to identify and rank the most dangerous crossings and that this information should be publicly available and used to inform the placement and content of any communication campaign / messaging.

## Communication and information channels

- Ideally, any campaign should use multiple communication and information channels and, depending on budget, could include:
  - **Roadside signage and billboards**; including staggered and advance warning signs (2km / 1km / 500m), more detailed information regarding distance between tracks and intersections or roundabouts, electronic signage giving the expected arrival time of the next train and advertising billboards (expect trains, stop, look and listen for trains etc.)
  - **Radio advertising** via a national station with local content.
  - **At workplaces**; spoken at briefings and health and safety meetings and pinned up on notice boards.
  - Or on **trucking and associated paraphernalia**, for example, log books (for those who still use hard copies), mud-flaps, t-shirts, caps etc. Or information available at toilet stops, cafes' and laybys.
  - **Personally informing** / reminding drivers at weigh stations.

# Perceptions of safety on NZ roads and railway level crossings



# How safe are New Zealand roads

In the online quantitative research, 29% of respondents felt that NZ roads were generally safe for HGV drivers.

- They clarified this in the focus groups by explaining that NZ roads in themselves are generally safe.
- But, this is on the condition that motorists drive sensibly, follow the rules, don't speed, are courteous and practice defensive driving.
- It is the failure of many motorists to follow these principles which make NZ roads unsafe.
- The driving habits which annoyed respondents' most included.
  - Overtaking and pulling in directly in front of HGVs i.e. into the gap they have left to enable them to stop safely.
  - Dangerous driving; speeding, overtaking on blind bends, texting or using the phone, following too closely etc.
  - Failure to indicate / state intention.
  - Indecisiveness.
- Respondents understood that most motorists have never driven or ridden in a HGV and have no understanding of what HGV drivers can/ can't see or why they take the actions they do . Drivers accept, albeit grudgingly, that this may account for some not all thoughtless and ignorant driving practices – there are still car drivers whose primary objective is to ... get in front of the truck.
- HGV drivers feel safer in their HGVs than when they are driving cars or motorbikes; size matters!
- Notwithstanding, respondents do acknowledge that there are many roads in NZ which are narrow, windy, poorly maintained, with loose gravel and poor visibility etc.
- Also, intersections (including railway level crossings) which are poorly positioned (on slopes, corners), with poor visibility, poor signage etc. which leave little room for error.
- There are also an increasing number of infrastructure problems. There is more traffic on the roads, including HGVs, trucks are getting longer and planners of new roads, housing developments, business estates etc. do not take this into account.
- All drivers admitted they have been in dangerous situations and have seen or been involved in near misses and/or accidents. Most have been driver error – primarily motorist and sometimes HGV drivers - and that more skill and patience (together with improved roading infrastructure) will help to make NZ road's safer.

# How safe are railway level crossings?

In the online quantitative research, 56% of respondents felt that railway level crossings were generally safe for HGV drivers.

Respondents in the focus groups concurred, though argued that safety varied markedly for different types of railway level crossings i.e. some were considered extremely dangerous (see following section), while others were no different to driving on the road.

Safety is dependent on a variety of factors, including:

- Presence or otherwise of safety / warning mechanisms.
- Visibility up and down the track and of approaching trains and, in some cases approaching traffic, fog, sunstrike, vegetation etc.
- Camber of the road and the crossing e.g. raised railway tracks (a hump) can make pulling away difficult, or taking the crossing at an angle or very slowly to avoid scraping.
- Traction / road surface; loose gravel is difficult to pull away on.
- Positioning e.g. angle at which the track and road bisect, at bottom of a hill or at the top, short distance between the tracks and the intersection.

There are also driver related issues which impact on safety – HGV drivers don't like to do so, but recognise that they are sometimes at fault due to:

- Limited experience, knowledge and poor situational awareness e.g. some newer drivers do not know where dangerous crossings are or when / where to look out them.
- Satellite Navigation Systems which direct drivers the quickest way not the safest way. They do not account for railway level crossings.
- Tired and / or distracted drivers.
- Drivers who are stressed or who are under time pressures
- *"... despatchers shouting in your ear, you should have been there ten minutes ago."*
- Also frustrating and dangerous are other road users who take unnecessary risks e.g. racing signals or overtaking trucks waiting at railway crossings.

# Railway level crossings



# Experience and usage of railway level crossings

- All respondents drove across railway level crossings during the course of their regular daily routes. Many crossed them numerous times and used many different types of crossing. The methods they adopted to use crossings depended on the characteristics of the crossing itself; there was not a one size fits all solution.
- All could talk at length about dangerous crossings, both in their local area and nationally.. Many had lived / driven in a variety of areas across NZ (and internationally) and were well aware of problem or 'notorious' crossings.
- Drivers with experience or advance warning of dangerous crossings sometimes used alternative routes and/or had strategies for approaching and crossing them.
- More problematic was when HGV drivers were in unknown areas, on a different route or when there had been infrastructure or roading changes which have impacted on the level crossing and road / intersection positioning.
- Level crossings can cause problems for new or inexperienced drivers, who are following their Sat Nav, listening to the radio (or to the despatcher) and who come across a dangerous crossing unexpectedly.
- Ideally, this is when more forewarning is needed, to give drivers an opportunity to prepare for and/ or avoid these crossings.
- Respondents noted that obtaining a driver's license or driver training does not include a section on level crossing safety and suggested this should be a consideration going forward for **all drivers**.
- However, they felt it was most important for HGV drivers, who do not have the luxury of being able to drive quickly and nimbly over tracks and for whom manoeuvring a large double trailer takes time, skill and experience.
- Some HGV drivers became quite animated and showed obvious signs of frustration in the groups. Some had lost friends or colleagues in accidents and believed that whilst these prompted an immediate media storm and a flood of public sympathy, little if anything was actually being done to increase the safety of railway level crossings for HGV drivers.
- Some also felt that the sub-text of reporting of such accidents or near misses was that the fault and onus more than likely lay on the HGV driver and that if they had been safer or more cautious drivers, the incident would not have happened.
- HGV drivers strongly believed that the general public, policy makers, even road and infrastructure planners did not understand the challenges of driving an HGV and that these are rarely taken into consideration. As outlined elsewhere in this document, HGV drivers could describe numerous actions to make railway crossings safer for HGV drivers, but that it was simply not a priority and that funding was usually directed elsewhere.

# Safety of different types of railway level crossing

In the online quantitative research, 6% of respondents felt that railway level crossings on private land, with no signs or alarms, were safe.

- Not all respondents regularly, or ever, drove over crossings on private land.
- The lack of signs or alarms did raise concerns and, for the unwary, made these crossings extremely dangerous; crossing them safely was the sole responsibility of the driver.
- The visibility on the approaches to these crossings and up and down the track was sometimes poor and drivers wondered whose responsibility it was to keep vegetation cut back; the land owner or KiwiRail?
- Also, poor road surface, camber and the tracks meant these crossings needed to be approached and crossed with caution.
- In saying this, drivers who regularly drove over crossings on private land said they aware they were there and knew when and where to look out for them.
- Worrying though is that ‘familiarity breeds contempt’. One respondent, a milk tanker driver, visited properties at more or less the same time every day, on his standard daily route. He ‘knew’ the timetable and when to expect trains, so was more vigilant when he was not running to timetable. At other times, he felt confident he knew when to ‘expect trains’.

In the online quantitative research, 24% of respondents felt that railway level crossings in rural areas and 32% of crossings with just a stop or a give way sign were generally safe for HGV drivers.

- Most respondents drove over rural crossings or those with just a stop or a give-way sign on a (semi) regular basis. These crossings were considered more or less dangerous, depending on their location, visibility and other safety factors (discussed earlier). Some crossings bisected flat, good quality roads, where drivers could see the track a long way in either direction, while others were ‘hidden’ in dips or around blind corners and it was not easy to see.
- While all of these level crossings were ‘announced’ via a road sign, the lack of active warnings (bells and flashing lights) meant that drivers were more likely to come across (and cross) these crossings unexpectedly; there are many signs and drivers can get tired and complacent. Also, if the signs are positioned too close to the crossing and there are no reduce speed signs further back, drivers can approach them too quickly.
- Paradoxically, the lack of active warnings can give some drivers a false sense of security i.e. they can wrongly assume that the crossing must not be that busy or very dangerous or there would be more warnings.
- And, drivers who regularly use a crossing admit they can become complacent and over confident i.e. think they ‘know’ the train timetable.
- Ideally, truck drivers would like to see more impactful and informative information and signage approaching these crossings.

# Safety of different types of railway level crossing

In the online quantitative research, 6% of respondents felt that railway level crossings where the distance between the track and intersection is less than the length of the vehicle were generally safe for HGV drivers.

- Respondents were unanimous in their condemnation of these railway crossings; they were mentioned spontaneously early on in all three groups.
- As found in the quantitative research, truck drivers are very wary of these crossings; they are inherently dangerous and pose real, and potentially, serious, safety risks for users. 81% of drivers think they are unsafe.
- Their biggest concern was being stuck with their vehicle on the tracks when a train was approaching or with the back of their rig obstructing road traffic. All had poor memories and experience of these crossings and several had near misses at them:
  - Two drivers who explained how the barrier arms had come down onto the backs of their trucks (when turning left onto a main road).
  - One driver was left with the back of his rig on the main road, when he went to turn right and the lights / bells and barrier arms started simultaneously. He had been tempted to drive through the barrier as he knew he was causing a road obstruction ... but thought better of it.
- Another told a colleague he was training not to turn left (as instructed by the Sat Nav), but to carry on to the end of town. His colleague chose to listen to his Sat Nav. They had ended up with the back of the bus on the railway tracks while waiting at a busy intersection.
- Railway tracks bisecting or in close proximity to roundabouts, such as those in Napier and Blenheim, were also a cause of anger and frustration. This was exacerbated by poor visibility at roundabouts, caused by vegetation obscuring indicator lights and signage at HGV driver height. Respondents did understand that many of these intersections are historical and were designed when trucks were shorter.
- They worry that going forward, this problem will only get worse as there are more trucks (traffic) on the road generally, including more longer trucks. And that this must be a consideration when developing future or upgrading current roading/ rail infrastructure.

# Safely using a railway level crossings with a short distance between the road and the tracks

- Respondents had various strategies for dealing with these crossings, including avoiding them altogether.
- However, this depended on prior knowledge of the crossing and / or sufficient warning to give drivers the option to choose an alternative route.
- If an alternative route was not an option, extreme caution was the order of the day. Drivers would try to wait behind the tracks until no other vehicle was in front, be alert to trains and traffic and then move as quickly as they could when a gap opened up. A couple mentioned they had been warned or penalized by the police for choosing to stop behind the railway tracks rather than at the intersection, despite explaining the predicament of sitting with their trailer on the tracks.
- Better communication with and education of the NZ Police of matters pertaining to this and other HGV driver challenges / hazards may help.
- Some drivers used 'local or situational knowledge - train timetables / railways signal lights – to gauge when it was safe to cross.
- Critical was to stay alert and to keep looking and listening.
- Having a spotter to look for you was better still, though this was not always possible.
- As found in the quantitative research, truck drivers dislike using these crossings. There is no ideal solution for doing so and usage means drivers are regularly risking their own and potentially other drivers lives. They are also acutely aware of the time / money impacts of a collision, even when no-one is injured.
  - Stopping before the train tracks means road traffic can be difficult to see.
  - And, pulling away quickly enough to pull into busy, moving traffic is difficult, nigh impossible, in an HGV (especially if the road surface is poor or the railway tracks are elevated.)
  - Other motorists can get impatient and over-take.
  - Sometimes drivers are 'forced' to push their way into traffic, or can be left with their rigs on the tracks or obstructing traffic, if warning bells / lights start unexpectedly.
  - Visibility along the railway tracks can be poor.
  - Trucks need space to swing out, which sometimes meant crossing the centre line when turning left.
  - Turning right into busy traffic can be almost impossible. Sometimes drivers preferred to turn left and to turn around further along the road.

# .... short distance between the tracks and the intersection



- *There is one on Highway 16 where you pull out and you come up out of the run and you have to stop because Highway 16 is coming this way and they are doing 100km and you have to stop and you are waiting and whatever behind you is on the line. It is not particularly loose metal but there is loose chip and all sorts of crap everywhere and if you are in a panic to get away and it is an uncontrolled crossing it is a perfect storm type of place. Then coming the other way you are in an 100km area with stuff up your arse and you are looking at what is coming around the corner and the last thing you think of as you are coming down is, is a train coming. It is too difficult, fine for a car but for a truck or bus, even someone with a trailer. They did a stunt thing of an empty log train running into a car there a few years ago so a lot of people would be quite familiar with it. It is a disaster waiting to happen and I know a few people have been killed there. [What can they do?] Close the crossing basically. Probably half a dozen people live up that road and it leads through to another road Old North Road. (Auckland, HGV driver, male)*

# Making railway level crossings safer

We asked drivers what advice they would give new or inexperienced drivers about using railway level crossings, or advice they wish they had been given.

This is summarised below and, in a nutshell, came down to three key things. First and foremost:

- **Stop, look and listen**
  - Take your time / slow down ... better late than never.
  - Look / keep looking ... move forward in your seat to get a better look / remember you have a huge blind spot ... you can't see the train, but it is there.
- Notably, when discussing potential communication campaigns or messaging ideas later in the group, respondents often came back to the simple, yet potentially life-saving concept of stop, look and listen ... something which all parents teach their children and should be second nature when crossing roads or railway crossings.

Drivers should also:

## Focus on the task at hand

- Minimise distractions; turn off the radio and listen for trains.

## Do your research – educate yourself

- Plan your route; know where the crossings are and take an alternative route if necessary (possible).
  - Ask questions and listen to more experienced drivers (who have driven the route before).
  - Know your vehicle – they are all different.
  - A minute spent at the start of the journey might be a live saved.
- **Drivers commented that** this advice is relevant for all drivers, not just new / inexperienced or HGV drivers, as even people who have been driving for many years can make mistakes and are still vulnerable at railway level crossings.

# Making railway level crossings safer

- Participants had many ideas / suggestions for making railway level crossings safer, many of which were also mentioned in the online quantitative survey. These included:
- **Improved visibility**
  - Cutting back vegetation/removing obstacles/moving the height of signage.
- **Education**
  - General public; why trucks do what they do;
  - And more HGV driver training
- **Communication and signage**
  - Improve signage and earlier warnings / message boards / Level Crossings graded 1-5, with one being safest and 5 being the most dangerous, and grades being included on signage / communication.
- **Improved technology**
  - Navigation systems which include Level Crossing warnings / Improved synching and increased time between bells/ lights and barrier arms / lowering.
- **Infrastructure improvements**
  - Better collaboration between road / rail / and trucking organisations / track and crossing improvements / better road planning and design which accounts for longer HGVs / barring trucks over a certain length from using some crossings.
- When asked **whose responsibility it is to make railway level crossings safer**, respondents are realists. They understand that there is insufficient funding (and commitment) to make safe every railway level crossing.
- However, they do feel that the Govt and affected Agencies (NZTA / MoT / KiwiRail / Roving Companies / Local and Regional Councils / NZ Police etc.) must take some responsibility, as they are all partly to blame for the current situation.
- Also, trucking organisations, who have a responsibility to keep their staff safe.
- And drivers themselves, who have a personal and vested interest making sure their driving skills are up to scratch and that they make time and effort to learn about their routes and to warn / educate other drivers as appropriate.

# Railway level crossing safety communication



# Unprompted awareness of railway level crossing safety messaging and communication channels

- As in the quantitative research, awareness of railway level crossing safety messaging was low and many respondents could not remember any messaging. Others thought they must have seen / heard something, but no specific examples came to mind.
- And, some respondents wondered if there had been any railway level crossing safety messages specifically aimed at HGV drivers, as the messaging they did recall was generic. Any campaign which encouraged safer behaviour among HGV drivers **and** the general public was welcomed though.
- Among those who could recall messaging, roadside billboards or signs near the railway lines or crossings were the most commonly remembered communication channels.
- Some also mentioned television, radio and online, but were unable recall specific campaigns, which suggests that respondents mention these channels because this is where they expect messaging to occur, rather than because they have any specific recall.
- The main campaigns and themes people remembered were:
  - **Expect / watch for trains** .... at any time, anywhere
  - **Look for trains** ... watch for trains/ be aware of trains / trains can come from both directions.
  - **Stop** (and look and listen) for trains.
  - The **Chris Cairns** campaign
- Footage in print or visual media, following an accident is memorable and 'real' and is a salutary reminder to take more care.
- As can footage of drivers making stupid decisions or taking risks.
- While not strictly messaging channels, roadside signage warning of approaching railways crossings and the distance between the track and the intersection were important, site specific reminders.
- The underlying sub-context in all of these is reminding drivers not to be complacent; not to rely on their own knowledge of the timetable and that a quick, cursory glance up and down the track is insufficient. They should take a careful and systematic approach when driving over railway level crossings.

# Railway level crossing safety messaging – tone and content

- For the focus group participants, content or messaging around dangers and actions at railway level crossings was not new or newsworthy.
  - All knew how dangerous some railway level crossings were and had, in fact, raised this issue spontaneously. They patiently explained to the moderator that they fully understood the physics of what happens when a fully laden train hits a truck - they knew to take extreme caution when crossing railway level crossings.
    - *“I try to explain what is like for a laden rig to try and stop quickly and what happens when they hit a car; scale that up considerably for a train.”* [Christchurch, HGV Driver, Female]
  - At the same time, all recognized that many drivers are involved in crashes and near misses with trains – and that drivers are *sometimes* at fault - and that steps are needed to avoid this happening in future.
- (There is a sense of camaraderie among HGV drivers – almost a them and us mindset – and they begrudgingly accept that some HGV drivers do have poor judgement and do make mistakes.)
- Tone is crucial however and if messaging is not done well – sensitive to drivers’ frustrations and their anger / sadness when friends and colleagues are injured / killed - they run the risk of provoking drivers’ ire and derision. Even more so when dangers have been well documented already, yet nothing has been done to alleviate them.
  - Clear, simple, easily understood messaging, which doesn’t blame or preach, isn’t too clever or obscure and isn’t too busy is preferred on the road side i.e. Stop, look and listen for Trains or Expect Trains
  - While it has the potential to irritate a small minority of drivers who complain that it is ‘teaching your Grandmother to suck eggs’, most admit that these messages do have an important role to play, especially for new, inexperienced or tired drivers and for those who may become complacent driving a known and regular route.
  - However, drivers also feel that generic messaging of this genre should be supported or supplemented with something aimed more directly at HGV drivers.
  - Ideally, this should be more clever and memorable; potentially, slightly risqué and use tongue in cheek or truck-ie humor. Something ‘new’ and impactful, which they will be tempted to share with colleagues.

# Prompted – ideas for safety messaging and messaging techniques

In all groups, respondents were given a sheet of possible safety messages and asked to tick those they thought would be the most helpful and to cross out those they thought would be the least helpful.

In the Palmerston North group, these were supplemented by past safety campaign messages and imagery (from NZ and international campaigns) and some ideas generated in the Auckland and Christchurch focus groups.

The objective of this exercise was to gain an understanding of the types of messaging (and imagery) which resonates most with HGV drivers and which themes or ideas have the most potential to support safer heavy vehicle driver behavior around railway level crossings

The safety messaging and techniques explored are summarised with examples below:

## 1. Instructional Approach

(Stop, look, listen – Beware of trains / Look, listen and live / Look right, look left for trains / Stop. Trains can't / Check your size before you drive – don't chance it / See Tracks? Think train / Train your brain / Strategies for using dangerous crossings / Watch for trains / Check twice / check both ways / check your blind spot.

**1A. Expect Trains** (Always expect trains at a level crossing / trains come out of nowhere / Always expect a train / Trust me. It's only safe to go when my lights and bells stop. Expect more trains in both directions / expect trains any-time, anywhere /

## 2. Factual Approach

(Truck vs. Train / I can't stop, you can! / Near Miss .... Near hit. News stories which remind people it can happen to anyone / messaging around clearance space and distance between intersections and tracks)

## 3. Emotional (Leisure references)

(The most important stop of the day / remember family and friends waiting at home / When you take time for trains, you're taking time for life / Switch off here. Not here)

## 4. Graphic Imagery of past near misses / overt references to death.

(Dying to get home isn't worth dying for / They were hit here, and here and here and found here / Collisions between semi-trucks and trains make up 25% of all vehicle train collisions ... and trains win every time / Lose a minute not your life

## 5. Humour / truck-ie speak / double entendre

(Wise up size up / Lorries can't Limbo / Being late for work beats never working again / Is your rig too big? / Size matters! / Never mind the width – remember the length.)

# Instructional approach

Overall, most HGV drivers liked this simple, clear and direct style of messaging.

While a couple felt this style was slightly hackneyed and boring, they did admit that when driving, signage / messaging must be easily visible, immediately recognisable and the content matter absorbed almost automatically and subliminally. They did not want to have to work at trying to understand a message or to interpret visuals / messages which were too clever or obscure.

Most participants recalled seeing the Stop, look, listen, beware of trains sign opposite and some had spontaneously suggested messaging with similar content and tone i.e.

- There is a clear message ... to stop, look and listen.
- It is a good reminder and reinforces existing behaviour (or should do) at level crossings and roads (for everyone).

While not specific to HGVs, any signage which encourages other motorists to be more safe is welcomed.

Other signs which warned / reminded or instructed the reader (driver / pedestrian) to stop (trains can't), look left and right, to think about trains etc. are all simple, yet effective messages for reminding drivers of the presence of trains (railway crossings) and a very direct reminder to take some specific action.



# Instructional approach



# Expect trains

Again, most HGV drivers liked this simple, clear and direct style of messaging, which they felt was in the same vein as the more overtly instructional examples discussed in the previous section.

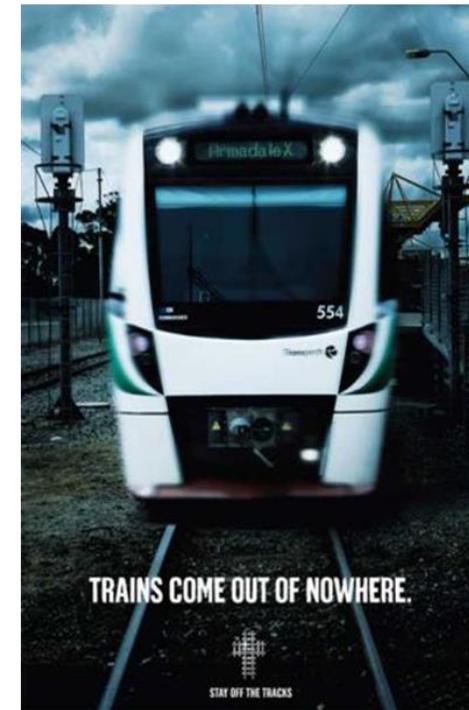
While a minority of HGV drivers' view was that this campaign idea has been overdone, most felt it was a very simple and clever way to remind the target audience of the speed and stealth of trains.

Several participants spontaneously talked in terms of trains ... *coming out of nowhere* ... *so could fully identify with this* campaign idea; it clearly and accurately summed up what had been a frightening experience for them.

The messaging is simple and direct; always expect trains (at any time); do not be complacent, do not assume you know the train time table. Treat trains and crossings with the respect they deserve.

Again, simple clear messaging like this is the preferred option when approaching a railway crossing. Drivers do not want to search for messaging and instructions. Telling them to expect trains is a subliminal reminder to slow down, stop, look and listen ... to beware of trains.

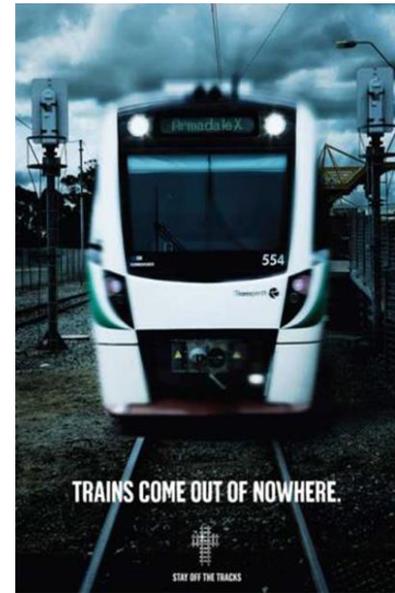
- *“When I turn off SH57 I know I am going to cross the railway line, because I can see it, but I always notice the billboard and it is a good reminder to slow down.”* (HGV Driver, Palmerston North, Male)



# Expect trains



It's only safe to GO when  
my lights and bells STOP.  
Expect more trains, in both directions.



For more information about level crossings visit [www.networkrail.co.uk/pedestrians](http://www.networkrail.co.uk/pedestrians) #BossingtheCrossing

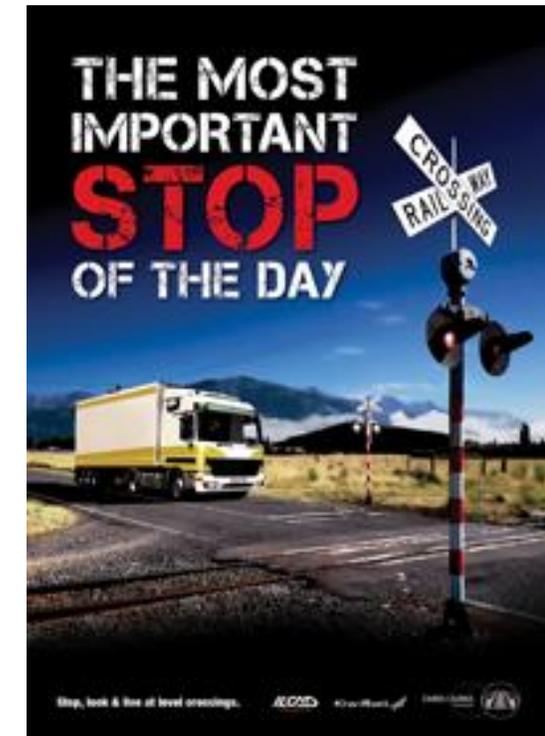
# Factual approach

- Again, most HGV drivers liked aspects of simple and factual approach in the campaigns opposite, though the messaging was at a slightly more complex and more subliminal level than the instructional and expect trains approaches.
- The preferred option is the train driver – I can't stop but you can, which drivers praised for having a clear and factual message – STOP FOR TRAINS - underpinned by human emotions / experience. Several participants had worked on the railways and / or knew train drivers and had heard first hand about the horrors of train collision and the psychological impact on drivers.
- 'Near miss ... near hit' is a subtle and clever play on words and a clear reminder that every near miss could have had the opposite outcome. Participants liked this execution, but felt that the message was not that clear i.e. they assumed it was telling them to stop / slow down and to be aware around railway level crossings, but this was not overtly stated. Drivers recognised that this campaign probably included other executions in a variety of media, but as a stand alone message, it was less impactful than direct instructions.
- The idea behind the truck vs. train execution is well understood; the approach has been used and seen before. HGV drivers are fully aware of the consequences of being hit by a train, though do not feel this execution is the best way to communicate this message. It is dull, busy and cluttered and, if drivers believed that actual footage of the aftermath of a collision would have been more impactful than the physics behind it.

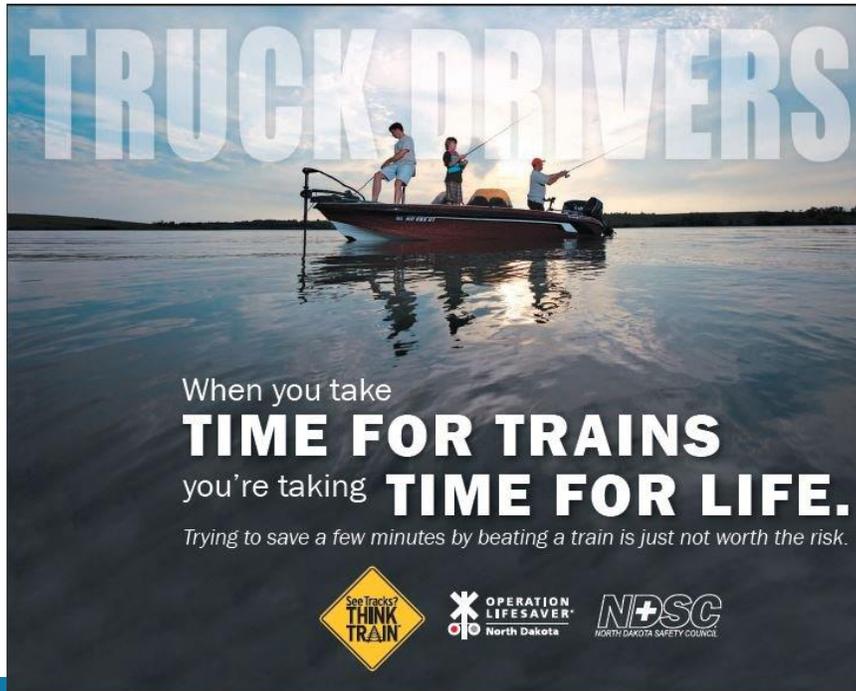
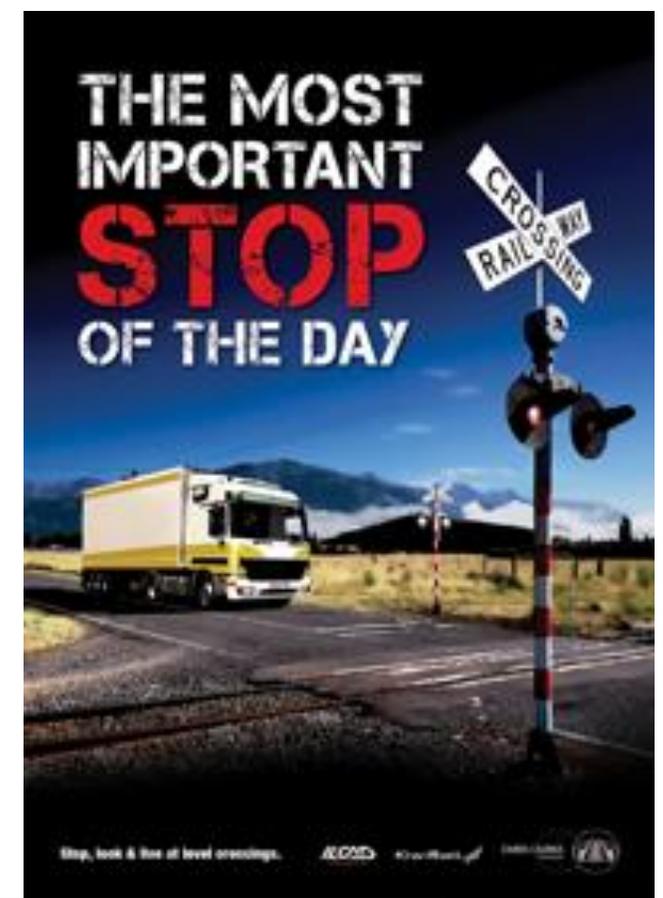


# Emotional (leisure references)

- In the quantitative research, some participants suggested using a softer, more emotion based approach to make drivers consider how important other aspects of their lives are (and how important they are to others) and to slow down (take more care) accordingly.
- This idea received a less positive response in the focus groups.
- While they liked the ideas behind the executions – slow down, take care, so that you get home safely – and the stunning imagery, they felt the messaging was more complex (subliminal) and that they were less of a call to action than some of the more direct executions discussed earlier.
- Many participants recognised and liked ‘The most important stop of the day’ execution. They praised the clever pun / word play. i.e. hinting that if you don’t stop here, it might be your last ever stop. The campaign is clearly directed at truck drivers and is set in a NZ context.
- “Switch off here, not here” uses stunning visuals and clever word play, but is not specifically aimed at HGV drivers and the messaging is not as direct or clear as participants liked.
- The ...when you take time for trains, you take time for life ... execution (overleaf) is clearly aimed at truck drivers, but a little bit too ‘clever’ or subtle for this audience and the execution is too busy and cluttered. Yes, the subliminal messaging is to wait, slow down, stop for trains, this does not jump out at the audience and gets lost in the general all over business of the execution.



# Emotional (leisure references)



# Graphic imagery / references to death

- Overall, participants agreed that post collision imagery is a shocking and impactful wake up call and sends out a clear message to take care around trains / level crossings.
- Even more so when the images include trucks.
- They agreed that this approach has a definite role and place in reminding drivers of the potential consequences of their actions; of being distracted, not stopping, not looking for long enough or carefully enough.
- However, they also felt that while this approach very clearly demonstrates the outcomes of a train vs. vehicle impact and leads you to assume the vehicle did not stop, it does not overtly say this.
- So, while elements of this style of campaign are an upsetting visual reminder of what can happen when cars and vehicles collide, it is less clear about what / how could have been done to avoid the collision.
- Participants expect to see this campaign alongside or in addition to more factual, instructional messages.



# Graphic imagery / references to death



# Humour / truck-ie speak / double entendre

- Overall, participants strongly agreed there was a place for humour in railway level crossing safety messaging.
- They explained how HGV drivers enjoy risqué and bawdy humour and that it is this style of message and content which are most likely to be quickly shared.
- Participants even started to come up with ideas themselves in the Christchurch group (Is your rig too big / Size matters / Never mind the width, remember the length) which were then shared with the Palmerston North group.
- These ideas did, indeed, raise a laugh and HGV drivers agreed they were a clever way to remind drivers of a dangerous – somewhat ridiculous – situation in a funny and memorable way.
- They also agreed that messages of this ilk (or ‘worse’) would be shared among other drivers and so receive greater exposure via sharing than a more ‘professional’ or serious campaign might do.
- However, these approaches have a very narrow and specific focus; they are not aimed at the general public and would be more suitable / appropriate for trucking media.
- HGV drivers assumed they would be seen together with a more overt – stop, look and listen / expect trains – approach.



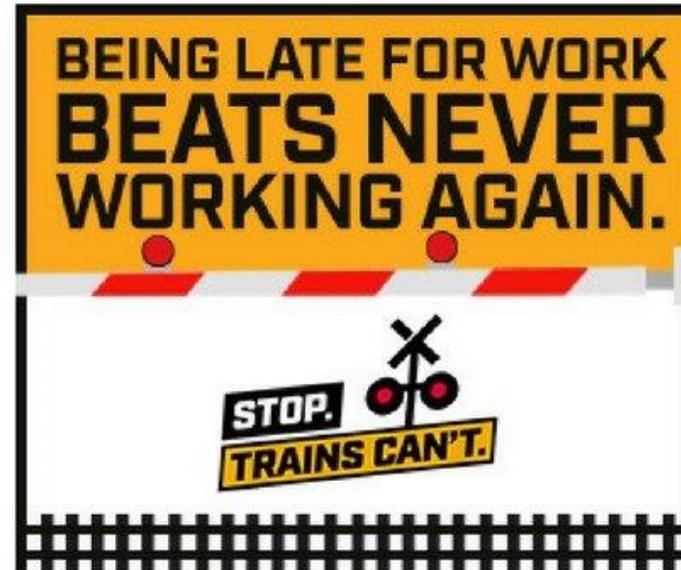
**Is your rig too big?  
Check your size before you  
drive – don't risk it.  
Size matters.**

# Humour / truck-ie speak / double entendre

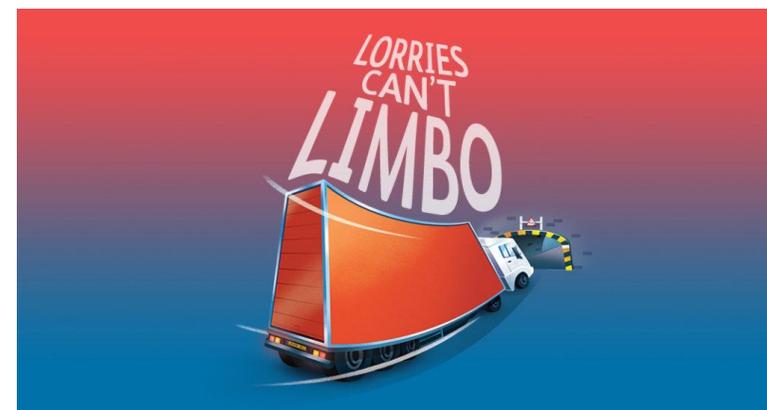
**Size matters!**

**Is your rig too big?**

**Never mind the width -  
remember the length!**



**Check your  
size before  
you drive  
– don't  
chance it.**



# Communication and information channels

- All participants were then asked what, in their view, is the best way of getting safety messages to heavy vehicle drivers. They were also shown a list of potential ideas and the TruckR app.
- As found in the online research, participants do not believe a campaign using a single communication channel or approach will be successful, not least because not all HGV drivers read the same publications, listens to the same radio station or watches the same television channels. Also, the road network is vast in NZ, so a poster or billboard campaign would need to be extensive to ensure the target audience saw it.
- Participants had many of their own ideas and the pros and cons of these- spontaneous ideas – and other prompted channels, are summarised below.
- **Radio advertising** – most truck drivers admitted to listening to the radio and agreed that this is a good medium to reach drivers at their place of work and when they are most likely to be in the vicinity of railway level crossings.
- The choice of radio stations is broad, however, so to ensure the campaign reaches as wide a sector of the target audience as possible, any radio advertising must be played on multiple channels.
- **Television advertising can** be impactful and memorable; most drivers can describe / recall in detail one or more (road) safety campaigns. However, increasingly, people are watching a TV via a range of different mediums, some without advertising. Some do not watch mainstream television at all and, among those that do, there is a tendency to skip or fast forward through advertising.
- **Road signage** – truck drivers profess to be good and alert drivers who are conditioned to look out for and read roadside information. In the groups, most could recall roadside billboards and signs they drive past during the course of their daily work.
- Road signage comes in many forms, however, and drivers expect and would like to see:
  - More staggered warning signs i.e. when approaching a dangerous crossing at the 2km and 1km marks, not just 500m in advance. Also, where there is still an opportunity to take an alternative route (if possible).

# Communication and information channels

- More detailed information regarding distance between tracks and intersection / tracks and roundabout.
- Electronic signage giving the expected arrival time of the next train.
- Generic signs warning drivers to stop, look, listen and beware of trains and to expect trains in the general vicinity of railway lines and crossings.
- Careful positioning of road signs is important though as they must not obscure drivers' vision and must not lose their potency / impact if seen too often.
- **Workplace** – some workplaces have regular – daily – meetings where weather conditions, road closures and other Health and safety matters are discussed. Reminders about safety around railway level crossings behaviour and dangerous crossings would be suitable in this environment, back up by information on notice boards, in 'smoko' rooms etc..
- In fact, employers and trucking associations (bodies) are expected to be involved in any initiative to increase truck driver safety, either via driver education and training, advocacy, dissemination of information etc.
- **Technology (including online and social media)** – is becoming increasingly important for disseminating information quickly and efficiently and HGV drivers feel there is definitely more potential for this to incorporate information about dangerous railway level crossings.
- Also, for communicating information (timings) about approaching trains for HGV drivers, alerts to train drivers to sound their horns long and loud when approaching a 'dangerous' crossing, slowing down or stopping traffic on roads to enable trucks to pull out safely (when there is a short distance between the intersection and the tracks).

# Communication and information channels

- **TruckR** – several participants were aware of and used this App or similar e.g. Transport Management App to plan journeys for routes they were unfamiliar with. Some drivers were warned of road closures or traffic delays, to take breaks etc. There was consensus that it could be very helpful for identifying dangerous crossings when planning a journey and, if possible, when approaching a crossing.
- Ideally, warnings should be spoken not texted, as while some drivers have hands free technology, others do not and are not keen on receiving more distracting text messages.
- One respondent had worked on the road trains in Australia and, when approaching a level crossing, a loud alarm and warning message sounded in his cab to forewarn him. This was extremely useful as driving in those situations was monotonous and dull and it could be easy not to notice a crossing until too late.
- Some drivers were more cynical, explaining that warnings in themselves will be insufficient if poor visibility and road and rail infrastructure are not addressed.
- Information at regular trucking haunts (cafes, toilets, lay-bys) and on trucking-related paraphernalia e.g. mud flaps, log books might also be helpful reminders.
- **The personal touch** – some drivers recalled occasions when they had been stopped / seen other motorists stopped by the Police at holiday times to remind people to take a break, to drive safely. They have been given information and sometimes a small gift; e.g. sweets / tyre tread tool etc. (The coastguard does similar at boat ramps during the summer holiday period). They wondered if the same could be done at weigh stations or other places where truck drivers congregate.
-

# Verbatim comments



# Driving experience

- *I work in heavy recovery now so basically I tow trucks and buses from breakdowns and accidents. I used to be line haul so I would be pretty much all over the island. I am based in Auckland and work mainly around Auckland but we do go out of town as well pretty much wherever the work takes us. I work for (Name) Haulage or (Name) Towing. When things go wrong we are the ones who go and pick up the mess. [Busy?] Yes it is really busy. No two days are the same, we get a lot of variety. (Auckland, HGV Drivers, Male)*
- *I have been driving for over 50 years and done line haul and that but I like my bed now at night. I work for an earth moving company, I am the transport most of the time when I am out on the road and the rest of the time I am in the office in management. We work mostly around (City) go up to (City) and to (City) but nothing this year so far thank goodness. (Palmerston North, HGV Drivers, Male)*
- *I basically deliver supermarket sort of food to all the supermarkets around (city). A little bit of out of town stuff but not much. We try and split (City) up into areas when we know what we are doing when we get the orders in the month before. So we might go that way or that way depending on which truck suits the run best. [How long have you been driving.] Since I left school at 15 I chased rubbish trucks for a few years and I got sick of running behind them so got my licence and started driving them at that stage. Pretty much doing a bit of this and a bit of that ever since whatever they will let me drive. (Auckland, HGV Drivers, Male)*
- *I have been driving city buses for about a year and tour buses for about another year and smaller tour buses in between and at the moment it is sort of off season and liking my own bed or my partner wants me to be in my own bed so I have been moving a warehouse for the last six weeks so backwards and forwards in (city). But I worked for the railways when I first left school, I was an apprentice train driver for about four years. I also ride motorbikes so there is similar stuff going on there. (Auckland, HGV Drivers, Male)*
- *I am (name) and I have been driving since 1979. I started out with my Dad's milk tankers, livestock and currently with (company). ... What would be my pet hate, I like to leave a reasonable distance, I'm 23 meters and can be up to 50 ton and cars like to get in my space in front of me and it's like really – please don't, oh, you're going to anyway – bugger. (Christchurch, HGV driver, female)*
- *I'm (name). I work for (name) haulage – right around the South Island for me. [How long have you been driving for?] Four years for them and before that I was with (company), before that was buses. ... I think the worst part about driving is possibly the lack of indication and people not reading speed signs – they speed up before they should and slow down before they should and bridges. ... It is good when you can get the truck on cruise control. ... (Christchurch, HGV driver, female)*

# Driving and safety on NZ roads

## Some roads are dangerous ...

- *There is a bridge on Highway 27 just south of Matamata and you dip down over this bridge and it is quite narrow but I used to use that road all the time and a survey came out awhile ago how to improve it because there had been a lot of instances. But what I have noticed over the years is the trees have been allowed to grow and 10 – 15 years ago you would look ahead and see a guy coming and back off but with the trees you can't see anything. So you come along and there is another truck on the bridge. (Palmerston North, HGV drivers, male)*

## Roads are getting busier; there is more competition for space ...

- *The biggest thing other than cars is cyclists especially on country roads taking up a small lane and it takes awhile to get a truck around them. (Palmerston North, HGV drivers, male)*
- *Getting more dangerous - Then the rural towns like Feilding and Palmerston North and again where this accident happened that I know of in Waimauku they used to have populations of 5000 – 7000 people and there is now 50 – 80,000 people. It is going to get worse. (Palmerston North, HGV drivers, male)*

## But, often it is the drivers not roads which are dangerous ...

- *A small percentage of roads are dangerous, intersections and black spots but 95% of it is probably just impatience, people not following the rules or driving outside of the conditions. (Christchurch, HGV driver, male)*

## New Zealanders have poor driving habits ...

- *People are so **unobservant** these days, they don't care. Not aware of their surroundings. [Auckland, HGV driver, male]*
- *I think the worst part about driving is possibly the lack of indication and people not reading speed signs – they speed up before they should and slow down before they should and bridges. ... It is good when you can get the truck on cruise control. ... (Christchurch, HGV driver, female)*

# Driving and safety on NZ roads

## People are in too much of a rush ....

- *Everybody is in a hurry.* [Are people less patient and less courteous on the road?] *I think it is just the fact that **people have basically stopped learning to drive really.** The bare minimum required to get their license and then they just switch off. No one properly learns how to drive anymore. In New Zealand you used to push bike to school, then motorbike to work or uni and if you learn to ride a motorbike you are going to be a bloody good driver because you are looking at the road surface, you are looking way up ahead because you know you can't stop in a hurry because you are on your arse. And you only have to do that a couple of times and you learn. And then you got a car and you paid a lot of money for a car so you took care of it. But now they go straight into a shit car for \$1000. And everyone drives like they are driving super cars.* [Auckland, HGV driver, male]
- *A mate of mine is driving truck and trailers and I asked him how it was going and he said you just have to remember to stay in the middle lane and I said why is that and he said when I first started I was in the slow lane and you get to parts of Auckland and people are in such a hurry to get on the motorway they drive in between your truck and trailer.* [Christchurch, HGV driver, male]

## Some drivers are rude, aggressive and have a sense of entitlement ...

- *The attitude of people these days it is like they are **legally entitled to speed.** I don't know how they got that mentality.* [Auckland, HGV driver, male]
- *I have changed the job description at work from Driver to Life Saver. If we didn't swerve to avoid them we would be killing a lot of them.* [Auckland, HGV driver, male]
- *I find people in Auckland are more ignorant drivers. And people in the Hamilton Waikato area are more nasty drivers. They will cut you off and flick their finger out the window and if you flick the finger out they will stop and get out and want to fight. [How do you deal with this?] I let it all go because it happens so much and so often it is continuous so if I got upset about it I would soon have a heart attack.* [Palmerston North, HGV driver, male]

# Driving and safety on NZ roads

## NZ has poor driving standards ....

- *The average New Zealand driver couldn't drive to save himself. They pass you on blind corners, double yellow lines, when they go past you there is traffic coming and they cut back in. I push 55 ton and then when you hit them from behind and the cop arrives they say he hit me from behind. You press the dash cam. (Palmerston North, HGV drivers, male)*
- *I don't think New Zealand's biggest thing is to slow down I think that it is more awareness for everyone. Licenses are out of a cereal box in my opinion. It is a 20 minute drive for your restricted or you full license. Finland or Switzerland it is four years and you do an hours drive. So as much as trains and truck safety needs to come through a bit more it is just basics. (Christchurch, HGV driver, male)*
- *If you have sat in a truck you have seen it all. Dash cameras are starting to show up and some of us have been putting up with it for years. (Palmerston North, HGV drivers, male)*
- *It is a change in attitude from Kiwis. I was talking to a mate of mine a couple of weeks back and haven't seen him for ages and he said going to Surfers Paradise surfing for a week and he goes I have to go the flight leave at 4 and this was 2 o'clock in Whangaparaoa. And he was just so cruisy and then all of a sudden he goes shit and in the car he has this personality change and goes like hell. [Is it a cultural thing?] It is totally cultural. (Auckland, HGV driver, male)*
- *My sister came back from overseas and she said I can't believe you have six people following a truck and the first person behind the truck goes to pull out and just about gets snotted by the person who is sixth in line taking them out trying to pass because they feel they are entitled to go past first. (Auckland, HGV driver, male)*

# Promoting a better understanding of trucks among other road users ...

- *If we were asked, NZE did Kids in Camps and they took them out and gave them an idea of what trucking is all about, the speeds they go, how long it takes to stop. People who don't drive trucks need to have a bit of an understanding of what our job is like. (Christchurch, HGV driver, female)*
- *I had a really close call just south of Hamilton at 7 o'clock at night pissing down with rain, 100km area, car on the inside, I am trying to keep as fast as I can go and the guy in front of us jams on the brakes and he puts on his indicator to turn right in a 100km area. I always learnt in the old days that if the way was not clear you pulled over to the side of the road and did a hook turn across. I read online and they have changed the law. (Auckland, HGV driver, male)*
- *So I am going to go for my pet hate which are car drivers that have no knowledge, respect or awareness of trucks. (Christchurch, HGV driver, female)*
- *What pisses me right to tears is what we all say, indication. They just do not know how to work roundabouts. It is crazy. And then you are going up the highway sitting back in your armchair and someone is coming up behind you and the next thing you have to break because he has got another vehicle coming towards him and he is not thinking about that, he is thinking I have to get past this truck at all costs, they don't care. It is stupidity, there is no common sense with car drivers. (Christchurch, HGV driver, male)*
- *What would be my pet hate, I like to leave a reasonable distance, I'm 23 meters and can be up to 50 ton and cars like to get in my space in front of me and it's like really – please don't, oh, you're going to anyway – bugger. (Christchurch, HGV driver, male)*
- *When you are in a truck basically you are trying not to stop. So you are always scanning ahead at the traffic. So if you are at roundabouts you are slowing down and looking for a gap and as you come up to a roundabout you try and accelerate as much as you can in a truck to go through the gap. Cars will come up to a roundabout and stop and have a look. There are two types there are those who don't indicate at all or they will have their indicator on and be going straight. (Christchurch, HGV driver, male)*
- *People just have no idea even if they are sitting behind us, we could be sitting on 80km because of the wind or something and they have no idea of how a truck rolls when they are loaded. There is a video in Aussie where they have people sitting in a truck and they explain to them blind spots. The shock on people's faces was incredible. (Palmerston North, HGV drivers, male)*

# How safe are railway level crossings?

## Level crossings are unsafe...

- *I tend to say railway crossings are the antithesis of that – safe - they are the most dangerous intersection on the planet. O'Rourke Road, Morris Road, Mays Road. All around Auckland on the Onehunga line. (Auckland, HGV Driver, Male)*

## Some level crossings are out of bounds ...

- *We have settings on our trucks because there are places you cannot go. Even if we pick up a fully loaded truck and trailer getting from here to Rolleston is a mission. We are so long and heavy. We try and go the best way we possibly can because the GPS units always try to send you via the quickest route and it isn't necessarily the best route and there are places we just cannot go. (Christchurch, HGV Driver, Male)*

## Driver error and inattention is sometimes to blame ...

- *In Pukekohe about three nights ago and it was an uncontrolled crossing and the guy was crossing with a fully loaded truck and trailer and he admitted that he didn't stop and look, didn't see anything, had the ear plugs in, didn't hear the train coming and a fully loaded 1km freight train hit his trailer and tipped it right on to its roof. If he had stopped and looked he would have seen the train lights coming. (Auckland, HGV Driver, Male)*

## Road infrastructure is out of step with the size of trucks on the road / at level crossings ...

- *Around Bunnythorpe there is a roundabout, a highway a road here and a roundabout and a level crossing and they are honking down there and you are coming around this roundabout and it is like some of the roading is from the 1950's or 1920's even and it doesn't account for size of vehicles. There are a lot bigger vehicles on the road, a lot more vehicles. (Palmerston North, HGV Driver, Male)*

## Road and rail infrastructure is poorly planned and aligned ...

- *There is one major cock up in Blenheim where there is a massive roundabout and it goes across the main trunk line – it is so confusing – move the road or move the railway – do something. (Christchurch, HGV Driver, Male)*

# How safe are railway level crossings?

## Poor visibility is a major problem ...

- *There are railway crossings that are obscured by trees and God knows what and they should be cleared. (Auckland, HGV driver, male)*
- *I feel really uneasy about that. It is the ones that are on angles, we can't see behind us, I don't have electric mirrors I can't swing my mirrors around to see so I am guessing. I have been checking, checking, checking but sometimes you can't always see. (Christchurch, HGV driver, female)*
- *Trees and hedges, you shouldn't have them within several hundreds of meters – for the truck I am in at the moment which is a cab you can nose up but when you are in a big bonneted truck you can't see the bonnet in front of you and you have to nose up to the train track and you are absolutely shitting your pants. If you are on a track that doesn't have bells you have to rely on that. (Christchurch, HGV driver, female)*
- *There is one up Wairoa where the road is like that so you are coming up and you can't see left no matter where you park. You stop, we are all pretty fortunate we have got tanks so our visibility is pretty good but the stock trucks can't see nothing. (Palmerston North, HGV drivers, male)*
- *Can get hit even if use correctly - marked level crossing and on State Highway 16 on to lower part at the Murawai end look left and look right and just pulled out and got cleaned out. You look right and you see maybe 80 meters and trains go through there between 70 – 80kms. It was someone who I worked with her husband did the right thing looked left, looked right and went and bang. (Palmerston North, HGV drivers, male)*

## Timing of level crossing warning systems could be improved ...

- *Feilding is just as bad barriers stay down and meanwhile everyone is sitting at the roundabout and can't get through. (Palmerston North, HGV drivers, male)*
- *I always give way to a train first but those red lights have to be flashing at least a second before you know they are flashing so they should be going for at least 5 seconds so at least you have a chance to haul up. (Christchurch, HGV driver, male)*

# How safe are railway level crossings?

## Crossing design can mean it is difficult to pull away / driver over the crossing ...

- *Some of the more rural ones the track maintenance and the lead up to the tracks is shit. You can lose traction. I think that is what happened in the Waikato with the guy who lost his life. There was no train there when he went across but it was coming. (Palmerston North, HGV drivers, male)*
- *When we are towing cars they can be so low you go up and over the crossing and belly out. So you go a bit faster because you know it is going to belly out and you scrape and let it happen. (Auckland, HGV Driver, Male)*
- *Also you stop at that crossing and check first but then you have how many gears to go through to get over. In a car you can probably floor it in first gear and get over it in a second but not in our trucks. (Auckland, HGV driver, male)*

## Drivers can rely on situational – train timetable – knowledge ...

- *I used to drive milk tankers up north and we didn't have signage. For a start you knew the basic schedule of the trains, you really had to know the basic situation. Because you were going in there at 7.15am you would know you were safe. You have to get up and over the crossing and that is a big challenge. And when you have explosive on you have to stop. If you are 54 tonne and you are trying to get up there. (Christchurch, HGV driver, female)*

## (Car) drivers take unnecessary risks ...

- *If the barrier arms are down they actually won't overtake us so that is one of the reasons that I think they need to be there. I do like the barrier arms. (Christchurch, HGV driver, female)*
- *People can sit on a level crossing on these two pieces of steel and not even think about what is going to be coming down the track. The problem is that it might only be once every six hours. But if it happens on the 30 seconds that you are sitting on it then it is goodnight nurse. (Auckland, HGV driver, male)*

## Warnings are insufficient in themselves; it is still important to look ...

- *The flashing lights are good and when I am coming up to crossings and it flashes I still look. (Christchurch, HGV driver, male)*

# Short distance between intersection and tracks

## Common knowledge and understanding that these crossings are dangerous ...

- *There is that thing of overhang and the particular one I am thinking of is in Te Kuiti, the middle crossing in Te Kuiti and I was training a guy and showing him the run from Auckland to New Plymouth and we came into Te Kuiti and had some passengers and dropped them off and I said go right to the other end of town and take the crossing there and bugger me he turned left straight away, he was following his Nav Man and it took him on to the main trunk line. That is experience and knowledge but it is also guys following that and it doesn't allow for what you know. (Auckland, HGV Driver, Male)*
- *The problem with those intersections is you stop at the crossing and then you go across to the roundabout or the intersection and may have to stop again. So you have done the right thing, you have stopped and checked to make sure the train is not coming and you go across the intersection and there is a queue of cars coming across and you have to stop again and a train comes along. You have done the right thing but you are still putting yourself in danger. (Auckland, HGV driver, male)*
- *The cockies who use it know it. There are some in Taranaki where you have a stop sign on State Highway 3 and your truck is on the lines. So you either stop before the railway lines and look and then just judge when you can pull out and you don't stop at the stop sign. (Palmerston North, HGV drivers, male)*
- *Is that a common problem.] It is. The one on the farm you have less room before the main road so you stop before the lines and check and then once you know you are clear you roll through the stop sign. (Palmerston North, HGV drivers, male)*
- *In most places where the railway lines are right by the road you are always going to get that problem. (Palmerston North, HGV drivers, male)*
- *I followed a trailer the other day, five axle trailer he was stopped on the line but his trailer was still sitting on the line. (Palmerston North, HGV drivers, male)*

# Using railway level crossings

## Driver responsibility to show duty of care ...

- *I worked down at Paraparumu when they did all the stations right through that area and even when I go to uncontrolled interactions I am always looking both ways. Even controlled ones I will look both ways and make sure I am in the correct gear so if something comes around the bend I can get out of there. (Auckland, HGV Driver, Male)*
- *Whether you are loaded or not the way you drive your vehicle is going to be different to make sure you get over in one piece or one go or not to miss a gear or anything like that. Personally what I do is I will sit at the railway stop sign and look for a gap. (Christchurch, HGV driver, male)*
- *There is a crossing going into Marton on State Highway 1 and regardless of the lights or whatever I still slow down. The visibility going into Marton to your left towards Bulls is good but to your right going up towards Marton all the tutu and whatever growing on the side of the track they are not clearing that like they used to. There is supposed to be 4 meters of clear ground but everybody has just let it go. It has got bells and alarms but it is just complacency, people rip up there. It doesn't matter which direction you come to it from you are going up over a brow to get to it. (Palmerston North, HGV drivers, male)*

## Sometimes have to take risks / to block traffic ...

- *There used to be that crossing in New Lynn before they built the train station that was a nasty one. It was up and over and on a corner ... I deliver to a factory right there and I have to back a truck and trailer in there. And it has markers in the center of the road and I go out and block the whole road and back in and it is just over the bend so people coming over the crossing can't see me. (Auckland, HGV Driver, Male)*

## Check train timetable / use situational knowledge ...

- *We do a lot of work out in Waitakere and you come down the side of the road and go across the railway crossing and down in the loose metal and we always get somebody out there to spot because the guys can't slow down for the railway crossing they have to bury it to get up there because they have no traction. When I was at the Works we had to stop 10 minutes before a train was due. (Christchurch, HGV Driver, Male)*
- *If we are driving a loaded combination like a truck and trailer over certain crossings we call KiwiRail and tell them where we are and they check the schedule and call us back and tell us when it is safe to cross to give us enough time to get across without any danger. (Auckland, HGV Driver, Male)*

# Making railway level crossings safer

## Holistic / joint approach is needed ...

- [Whose responsibility is it to make the crossings safer?] *I think it is a joint effort. Railways could do with upgrading a lot of crossings. We could do with more driver education too. It doesn't matter what you are driving there is no requirement for practical driver training and assessment. You get your learners license you go for a few trips out with dad and then you go for your driving test. As long as you pass your restricted driving test that is it. As long as you have no infringements you get your full license. (Auckland, HGV Driver, Male)*

## Driver training, education and experience ...

- *When you get your Learners and your Restricted they should have a system where you have to come back in so many months to do a refresher. I know the first time you go in there, there is just so much information you don't take it all in. (Christchurch, HGV driver, female)*
- [When you do your HGV license, is there a section on railway level crossings?] *For the Class 1 learners license there might be a generic question about railway crossings but that would be about it. There is no full on discussion or testing about what you do at a crossing with a heavy vehicle. You learn by experience. I once had a train hit the very back of the trailer. That was me not getting it right, not timing it and it started coming down and I thought that came down faster than usual and it clipped the very back of the truck. I should have been faster. (Palmerston North, HGV Driver, Male)*
- *The next vehicle you drive is going to be totally different. Every vehicle you drive is going to be totally different so it is hard to teach someone what to do at a railway crossing because it is not going to be the same - you need to learn how to drive in difficult and different circumstances. (Christchurch, HGV Driver, female)*
- *I have always said that anyone who wants to hold a drivers license in this country regardless of the class should be required to undergo mandatory practical driver education. And people say that costs too much but if you want it badly enough. (Auckland, HGV driver, male)*
- *You see some of these fly by nighters out there, teenager fresh out of school and he has only just got his Class 3 or 5 license and they throw them into a 58 tonne truck and trailer and send them to Wellington with no experience whatsoever. You are setting him up to fail, you are literally signing his death warrant. (Auckland, HGV Driver, Male)*

# Making railway level crossings safer

## Driver training cont ...

- *There is a massive driver shortage in this country, you take Gleeson & Cox they have emptied all the half way houses in Fiji by importing them all to drive and not one of them can drive. They don't give a dam about anybody on the road whether it be train, car, motorbike or anything. (Auckland, HGV Driver, Male)*
- *When I was at the Works we had to go down to New Zealand Rail to Wellington and did a two hour course about rail safety and it was right through crossing – that would be a good idea to incorporate in a drivers license for every driver in the country. It was actually very informative and quite graphic some of their pictures. That would have been about eight years ago. (Auckland, HGV driver, male)*

## Despatcher training ...

*One of the other hassles is people rushing to get to the next job. Electronic lock box stuff. Often you will be rushing to get to that place where you know you can park before this time so your concentration becomes on getting there at the cost of other things. (Christchurch, HGV driver, female)*

*There shouldn't be that pressure, there is pressure in this job as it is. (Christchurch, HGV driver, female)*

*90% of dispatchers haven't driven trucks. (Christchurch, HGV driver, male)*

## Increased road / route / situational awareness ...

- *There is also that thing of know where you are. In the tour business you get an itinerary and you go here and you go there and you have a tour guide say can we go down ? so you head off down some road you have never been before. That would be the same with deliveries as well you would head off down some road you have never been down before and unless you have had the opportunity to Google Earth it you wouldn't even know and you come around a corner and hello there is a level crossing. While you are mucking around through the process in your head there is a train coming. (Auckland, HGV Driver, Male)*
- *I tell people when you come to work that is all you need to be thinking about, do not think about anything else until you leave the truck and I do that every day, I do not care about anything except for my job when I am on the road. (Christchurch, HGV driver, female)*

# Making railway level crossings safer

## Have someone to look out ...

- *At uncontrolled intersections we always have a spotter like we said. I am always pretty cautious, I worked on petrol tankers down town here years ago and coming out of the yard we had an uncontrolled crossing there and a couple of guys had some near misses. I have always been aware because my father the best piece of advice he gave me was it doesn't matter who is in the right or who is in the wrong he said always give way to the larger vehicle. (Auckland, HGV Driver, Male)*

## Always stop and look ...

- *Stop and look I totally agree with that and I agree with knowing where you are as well but I go to a lot of crossings that I haven't been to before so I can't exactly say that. So you try and be as aware as you can with what is on the other side as much as you approach. (Palmerston North, HGV Driver, Male)*
- *I have always done that ever since I learnt to drive have the window down at least a little bit. (Christchurch, HGV Driver, Male)*

## Improve visibility ...

*Visibility is a huge thing. I believe Kiwi Rail could do a lot to improve it, not only with keeping the crossings clear but putting a better lighting distinction on the front of the engines. They travel at night with the white lights but during the day when they are coming to crossings they should have yellow or green or blue flashing lights. They need to step up to the mark as well and put things in place. Where there is unmarked crossings like that maybe they reduce their speed. It is a give and take. (Palmerston North, HGV drivers, male)*

*In order to see and acknowledge there is a train coming within a safe distance to get across there should be absolutely no obstructions in each direction. Because the train might be 1km away but you have no idea how fast it is going. (Auckland, HGV driver, male)*

*Clear the tracks, clear the trees. (Auckland, HGV driver, male)*

*They shouldn't have any obscurities, trees obscurity anything within 500 meters of both sides of the tracks. (Christchurch, HGV driver, female)*

# Making railway level crossings safer

## Investment (in infrastructure) ...

*Some of us have got a lot of years under our belt and we could look at a problem and solve it. But they say no we can't do that, do you know what the cost of that is. (Palmerston North, HGV drivers, male)*

*Another thing that would be good with that is I know with some roads when you come up and there is a give way sign you get a little merger lane that goes on to the main road and it would be good if they add a bit there so we could maybe get our nose around to get over those tracks. 10 meters so we can nose out. (Christchurch, HGV driver, female)*

*Seriously the infrastructure some hard facts needs to be looked at there. (Christchurch, HGV driver, male)*

*It is easier for them to shift a road than shift railway tracks so when they are redesigning think about 25 meters not 23 meters. (Christchurch, HGV driver, female)*

## Technology ...

- *One way you could possibly do it is to have some sensor system that knows there is a truck coming, if you had lights to stop the other traffic so the truck could pull straight out to the right. (Palmerston North, HGV drivers, male)*
- *Technology is being developed and used in Sydney at the moment, so the metro trucks that go through the city they say there is a priority system and it is basically pay per use so there are laser tags that sit up on top of the traffic lights now and it scans the area and if there is a truck coming they have the priority. (Palmerston North, HGV drivers, male)*
- *One thing that would probably help in that situation is actually having a digital timer at the crossing that told you how many minutes the next train is away. At the railways stations now at the platform for the commuter trains they are pretty accurate and you could have that there is going to be a train in the next 10 minutes. If it is green there is a train in the area, if it is red you know there is a train in that section so nothing else is going to come. But that again is local knowledge. I know here that is how it happens. Something like that on railways crossings that recognizes there is no train in the area. (Palmerston North, HGV drivers, male)*

# Making railway level crossings safer

## Improved signage ...

- *One thing about signage for railway tracks, if you don't know the area you get 500 yards or 200 yards. It should be way before. (Christchurch, HGV driver, female)*
- *And even when there is a sign, you don't know anything about the crossing ... are the tracks raised, what the surface is like, how close to the intersection. There needs to be more information on the signs. (Auckland, HGV driver, male)*

## Better planning / integration of road and rail ...

- *They really need to start thinking instead of building the cars for roads they really need to start looking at all these trucks that are this many meters and this wide and we need to put that road out another 2 meters, make it 7 meters longer than the train track. (Christchurch, HGV driver, female)*
- *It is better spending money on keeping people safe on the crossings than trying to keep them alive in the hospital. (Auckland, HGV driver, male)*

## Develop a level crossing grading / priority system

*They have all the data; they know where the worst ones are and where there are the most accidents. They should analyze that to grade all the crossings and make it available to all drivers and to the trucking companies. We know our own routes, but as soon as you are off home territory it is a different story. (Auckland, HGV driver, male).*

- *they identified the ten worst ones in Auckland and targeted them and put the money into those. Then we are going to see that they are making efforts because they don't want them to happen. Take some money out of the advertising and do some practical stuff and we will all see it. (Auckland, HGV driver, male)*
- *Make them a priority with vision. You are coming up to a Grade 1 crossing that one is real bad. (Auckland, HGV driver, male)*

# Making railway level crossings safer

## Impose more restrictions ... but this might be unpopular ...

- *You could say left turn only and build a slip lane. (Palmerston North, HGV drivers, male)*
- *That one at Ohakea should be no right turn. I have seen a couple of trucks stuck there when the barriers come down. (Palmerston North, HGV drivers, male)*
- *The government will say no trailers so that means you have to detour 5kms that way. (Palmerston North, HGV drivers, male)*

## Collective voice to raise awareness ...

- *[Do we just have to accept that dangerous crossings are that part and parcel of driving in New Zealand.] Some of it is but anything extra that is done is better than nothing and we as drivers need to be making more noise. Not just bitching here and among ourselves, but getting our point across with the people who can make changes. (Palmerston North, HGV drivers, male)*
- *One kid gets killed trespassing and there is an uproar but when a truck is hit, it is like we are fair game or it is the driver's. There needs to be more in the media about how dangerous some crossings are and why they are so dangerous for trucks. (Christchurch, HGV driver, female)*

## Changing pedestrian and other driver behavior around railway crossings ...

- *I actually spoke to a kid I was catching a train into town one day and there was this kid sitting there on a push bike on the platform like this and I said think about it dude you are going to give the driver a heart attack. He said shit I didn't think about it. (Auckland, HGV driver, male)*
- *At Middlemore Hospital you can still walk across platform to platform. They built the bridge over the tracks but nobody uses it. Now they have a fence and it is locked when the train comes but you can hop off the platform and walk down past the fence. (Auckland, HGV driver, male)*
- *if you are looking for a motorbike and they have fluoro's it is easier to pick up. But if you are not looking for a motorbike regardless of what he has got on you are not going to see him. It is the same with a train, a train is the size of a house and it has got lights and flashing shit, half the time it has a protected crossing but people still pull out in front of them. (Auckland, HGV driver, male)*

# Rail safety messaging – recall (unprompted)

## Billboards

- *I think there are billboards where they put up mock Chinese things, Chinese train, I have seen those a few times. Always expect a train. (Auckland, HGV Driver, Male)*
- *Expect trains ... there is a billboard just as you come off SH57 before you go over the railway crossing. (Palmerston North, HGV Driver, Male)*
- *They put a lot of signs up “expect trains at any time.” (Christchurch, HGV driver, male)*
- *There are bill boards up north but I haven’t seen them down south. The bill boards were all around making sure you have got plenty of time to stop, make sure you leave room for the trains, expect trains, all those sorts of things. (Christchurch, HGV driver, female)*
- *There is the one at Dannevirke by the golf course and it says expect trains and when a train is coming it says expect trains. They do it for cyclists on narrow bridges and stuff. So they are doing it in certain spots but they could be doing it more. (Palmerston North, HGV drivers, male)*

## TV Campaign ...

- *Didn’t Lance Cairns lose his sister, he fronted on TV or something. [Was that aimed at drivers?] It was just an awareness campaign. (Auckland, HGV Driver, Male)*

## Employers

- *Your employer reminds you all the time to be careful out there and stop and look. We have to stop at crossings, that is what we have to do. (Auckland, HGV Driver, Male)*

# Rail safety messaging - prompted

## Physical / visual demonstrations ...

- *To give you an idea of the physics of it, it is like hitting a paper bag in a train. It is like hitting an egg shell with a sledgehammer. (Auckland, HGV driver, male)*
- *It comes down to the physics and I don't think people are taught enough at school ever, 80 – 100 tonne locomotive and 2000 tonnes of train going 60, 70, 80km an hour can't stop, it is impossible to stop it. (Auckland, HGV driver, male)*

## Specific, HGV directed, signage ...

- *It really should have a sign prior to that saying this stopping zone is x-meters is you rig to big. Something with inuendo, truck drivers we have dirty minds so we are going to look at that. (Christchurch, HGV driver, female)*
- *Size matters ... that's good and wouldn't offend too many people. I have seen that for a hotel here in town, but it relates to the length of trucks as well. (Palmerston North, HGV Driver, Male)*
- *On the road, it has to be simple and easy to understand, but in truck-ie mags or on the smoko room noticeboard, you can be a bit more clever. Never mind the width, remember the length sort of thing. (Christchurch, HGV driver, male)*

## Clever word play ...

- *And people are more likely to tell other people about it. 19 meters - is your rig too big? People will talk about that sort of stuff and it will come up in conversation more than check twice for trains. (Christchurch, HGV driver, male)*
- *Stuff that is clever will stick in your mind. (Christchurch, HGV driver, male)*
- *We are not dumb truck drivers. So a bit of humor and intelligence is really good. (Christchurch, HGV driver, female)*
- *If you go down south Lake Waihola they have a sign – no hospital, no doctor, one cemetery – things like that catch your attention. (Christchurch, HGV driver, male)*

# Rail safety messaging - prompted

## Simple instructions and reminders

- *Some of it comes down to experience and training. Some of these young guys coming up, you physically have to get around and look left, right, left, right and you can see both sides. You do a quick glance and bang. (Christchurch, HGV driver, male)*
- *[Which part do you need the most?] Check both ways. That is like when you were a little kid when your mum told you to check both ways and then check again. (Auckland, HGV driver, male)*
- *Look twice, check three times. (Christchurch, HGV driver, female)*
- *There is no rush. (Christchurch, HGV driver, male)*
- *We started work 40-odd years ago some of us and the old boss would say I want you to stop and I want you to look and I want you to listen. (Palmerston North, HGV drivers, male)*
- *There was another one along the lines of always expect trains, simple. (Palmerston North, HGV drivers, male)*

## Graphic imagery to leave a lasting impression ...

- *They had all those drink driving ads on a few years ago and everyone complained they were too gory. (Auckland, HGV driver, male)*
- *They need to come across something, if they come across an accident at a level crossing or whatever and they graphically see what is in front of them. (Palmerston North, HGV drivers, male)*

# Communication channels

## Text messaging / Apps - for those with hands free technology

- *I don't know agree with that text messaging – people are on their phone enough as it is. (Auckland, HGV driver, male)*
- ***TruckR** ... could be useful if people take the time to set up and check and for new areas .. ... Setting with the app the length of the vehicle for example. So when you are driving and it has this route so instead of saying turn left at the next intersection it is saying turn left at the intersection 1km ahead. (Auckland, HGV driver, male)*
- *think that (TruckR) may already exist but we may not be using it properly. Mine pops up when I use the Transport Management app. We have one that has our jobs in it so when we want to go to a job it has a live update of the best way to get there and you have Google maps. It is all there. [Does that include railway crossings?] Yes it done. It is in the settings but I must admit I saw it once and I didn't go back to it because I am familiar with my own area. (Auckland, HGV driver, male)*
- *You need something that talks to you because you can't be looking at texts when you are driving. [Auckland, HGV driver, male]*
- *This is what I get texted to me straight away, Alert. I get that sort of thing all the time. I pay \$50 a year. (Christchurch, HGV driver, female)*
- *If it is something serious the app speaks through your phone. That one there the app would be good as long as when it sent a message it knows that it is urgent and it can speak it to you. (Christchurch, HGV driver, female)*
- *We have got hands free gear in the truck and if we get a phone call we press and answer and if you get a text you can press and it will read it out to you. But technology costs money and money comes off the bottom line. (Palmerston North, HGV drivers, male)*
- *If you have got a set route you can load that route in and it will email you if there is a closure on that route that is quite handy. And you can set your local region and it will email you with any closures. (Palmerston North, HGV drivers, male)*
- *Anything that is going to help is going to be great. (Palmerston North, HGV drivers, male)*
- *We get an alert which tells you to stop and have a break. I don't know how you do that on a level crossing. (Auckland, HGV driver, male)*

# Communication channels

## Road signage ....

- *Those black spot traffic areas there is one up Waiwera area and you come around the corner and you have already hit it. So 2km, 1km this is it. If it is a trouble spot and it is causing those sorts of issues and obviously the locals get to know that but that is where the idea of having the three signs all repetitive. (Palmerston North, HGV drivers, male)*
- *[So where should signage be then?] A couple of hundred meters before and then another little reminder just before it. (Auckland, HGV driver, male)*
- *You want to keep the crossing and the intersection clear but not too far away. (Auckland, HGV driver, male)*
- *You can't hear the trains over your engines. You have your RT you have to listen to that constantly. You can't hear. (Christchurch, HGV driver, female)*
- *Instead of putting up a sign like this that says Caution Unmanned Crossing have something that is 8 foot x 8 foot and put it up two or three signs. It is going to cost maybe \$1000 to put up three signs. (Palmerston North, HGV drivers, male)*
- *Put signs up 2km ahead, 1km ahead. (Palmerston North, HGV drivers, male)*

## Careful positioning of signs is important ...

*You put signs up and it blocks your view. There is many a crossing where they have signs up and you get to a certain point and you can't see past the sign. (Auckland, HGV driver, male)*

## Can lose power and potency if seen too often and there is too much else is going on ...

- *Some of the signs are over used and no one takes any notice of them or there are so many signs – traffic signs, advertising, warnings – they just blur into one. (Christchurch, HGV driver, female)*
- *I have the RT and I am concentrating on what I am actually doing. The iPad is going off all the time as well. (Christchurch, HGV driver, female)*

# Communication channels

## Reminders of personal responsibility and consequences ...

- *It is like kids who aren't being fed before they go to school, it is not the schools responsibility to feed them it is the parents responsibility and we have responsibility for our own actions and if that means more education of a young truck driver and I am not just blaming the young ones but that is what has got to happen. If the railways get busier, trucks sit there longer. You just have to make people more aware. (Palmerston North, HGV drivers, male)*
- *You can put up all the signs you want but it is still down to the driver to stop, look and listen. And they are the ones to suffer the consequences if they don't. [Christchurch, HGV Driver, Female]*

## On the radio ... but no one station preferred

*I refuse to drive a vehicle that hasn't got a radio in it. I don't listen to ZB but I think that has got the most listeners. Maybe it goes on three channels. (Auckland, HGV driver, male)*

- *[Is radio a good way to get messages across?] It probably is for us because we are stuck in a truck all day so that is your entertainment, you hear a lot on the radio. I don't watch TV anymore unless the All Blacks are on. (Auckland, HGV driver, male) driving and it talks to you that is cool. It is no use it flashing up on a screen. (Auckland, HGV driver, male)*
- *I don't because I have the RT and I am concentrating on what I am actually doing. The iPad is going off all the time as well. (Christchurch, HGV driver, female)*

## In the workplace ...

- *We are supposed to have fortnightly drivers meetings but half the time they don't happen, but they are the place to bring up things like railway crossings, road closures, slips etc. (Christchurch, HGV driver, female)*
- *So the driver is aware where the issues are and whether it comes back on the onus of the company to make them aware because it is driver training really isn't it. When you start getting jobs driving for different outfits they need to make them aware and I don't mean treat them like little boys but if there are issues it is up to the individual as a truck driver and the company to make sure that railway crossings are a part of the route. (Palmerston North, HGV drivers, male)*

# Communication channels

## Technology

- *You have those things where the map changes colour for road conditions. So if there is moderate traffic it goes to yellow and red but the trouble is that it is not up to date. (Auckland, HGV driver, male)*
- *We have things called geofences on the GPS and we can mark an area where we are not allowed to go so when we get within a certain distance of a certain street or landmark it will come up on the GPS. Like Grafton Bridge Don't Cross. (Auckland, HGV driver, male)*
- *The people behind the GPS systems they have millions and millions of streets so it wouldn't be any skin off their nose to add certain locations and difficult level crossings on the GPS unit. So State Highway 1 or wherever the location is – Uncontrolled Crossing. (Auckland, HGV driver, male)*
- *They should have joined up with the council or Transit New Zealand years ago and used their technology years ago even just to run their signs that go on top of the bridge and have a joint thing going on where they use each other's technology so it was up to date and they all said the same thing. (Auckland, HGV driver, male)*

**Log books** - *Something to look at is the front cover of the log book because they put pretty trucks on now. (Palmerston North, HGV drivers, male)*

## Physically stopping and reminding drivers ...

*I liked in the holidays where they had a stop on the side of the road near Waipu with a refresh break, holy crap that is really good, especially when you had a lot of kids. It was like saying yes you have to stop and have a break. I don't know how you do that on a level crossing. (Auckland, HGV driver, male)*

*Maybe they could do something at the Weigh Stations; tell you about local crossings. Maybe give you something to take away with you? (Auckland, HGV driver, male)*