

Heavy Vehicle Seat Belt Wearing Compliance in New Zealand
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Introduction

The Accident Compensation Corporation (ACC) is a Government entity that manages New Zealand's statutory accident compensation scheme. Promoting measures to reduce the incidence and severity of personal injury is the primary function of ACC injury prevention. This paper will discuss our experience in developing and delivering a workplace road transport programme related to seat belt wearing among drivers of heavy vehicles. ACC is a personal injury insurance scheme. It provides 24 hour, no fault cover. Its injury prevention efforts are driven by the cost of claims and the Corporation has a statutory responsibility to direct its programmes in ways that will most effectively reduce levies that are driven by these claims. This can only be achieved by reducing both the incidence of claims, but more particularly the severity of the injuries that do occur. Anticipating the future trends and issues that will impact on injury rates and developing programmes that respond to those issues is a key component of ACC's workplace injury prevention strategy.

Characteristics of the New Zealand Workplace

In New Zealand there are 1.7 million people working across 17 sectors, of which 40% are engaged in highly hazardous industries such as agriculture, road transport and manufacturing. As in many economies, the vast majority of New Zealand workplaces are small businesses. For ACC, a small business is defined as an enterprise with less than 10 full time equivalent staff. In New Zealand 92% of all enterprises are defined as small business.

According to the New Zealand Road Transport Forum, 95% of those companies involved in road transport operate fewer than 10 trucks. Most transport operators are small businesses and struggling to meet the increasing freight demand in New Zealand.

The few large organisations often have depots throughout the country and operate as independent small businesses geographically isolated from their headquarters.

Background

ACC collects funds from the NZ public in a variety of ways to cover costs for injuries that result in claims. Employer levies are collected to cover the cost of the work related claims. Levies are determined by industry risk where the most hazardous industries pay higher rates than those industries with less risk. Adjustment to these rates is dependent upon successful injury prevention interventions.

Funds collected from vehicle registrations and petrol surcharge cover the cost of claims that occur in motor vehicles on public roads, whether work related or not. There are gaps in the data ACC collects on work related claims that occur on the road. Therefore data collected by a variety of other agencies regarding on-road crashes, is relied upon to assist in identifying some of the underlying issues that may have caused or enhanced the severity of the crashes. Data is collected by the Ministry of Transport (MOT) through Land Transport New Zealand. Land Transport NZ is the licensing and regulatory body for transport in New Zealand. The Commercial Vehicle Investigation Unit (CVIU) is the unit of the Police responsible for managing all sectors of the commercial vehicle industry. These officers investigate any crash in which a serious injury occurs. This information is valuable in identifying causal factors of crashes on New Zealand roads.

As part of this ongoing data collection process and work in the road safety area, MOT was reviewing the legislation related to the seat belt requirement for the heavy vehicle fleet. Under current legislation, all vehicles manufactured after October 2003 are required to be fitted with seat belts, and where a vehicle has been fitted with a seat belt, regardless of age, the driver is required to wear it.

There was ample information regarding the seat belt wearing habits of the light vehicle fleet. Annual surveys are collected in all regions of New Zealand; however these surveys do not distinguish the heavy vehicle fleet.

In reviewing the fatal crash reports of heavy vehicles, investigated by CVIU, MOT identified that the effect of the non-use of seat belts by truck drivers on the level of road trauma in New Zealand is considerable. Between 2003 and 2005, 50 heavy vehicle occupants were killed in road crashes. The Police officers attending the fatal crashes established that only 16 of the 50 definitely were wearing a seat belt at the time of the crash, and that 16 definitely were not wearing a seat belt, despite there being one available in 11 of those cases. They also judged that 5 of the 16 unrestrained occupants definitely would not have been killed and a further 5 may not have been killed, if they had been wearing seat belts.

To better understand the rate of seat belt wearing among heavy vehicle drivers, ACC commissioned Research New Zealand in April 2006. To conduct an observation based benchmark survey of heavy goods vehicle drivers in four of New Zealand's largest cities; Auckland, Hamilton, Wellington and Christchurch and two smaller centres Dunedin and Napier. To address the current legislative environment for heavy vehicle seat belt wearing, based on age of the truck, during the observational surveys, the registration number of the vehicle was collected, along with whether a seat belt was worn or not. The registration numbers allowed identification of the date of manufacture of the truck hence determining the legal requirement to have a seat belt fitted. The observational study confirmed concerns that a large proportion of commercial truck drivers were not wearing seat belts while driving, which has serious implications for the health and safety of drivers in the road transport sector. Table 1 shows the national average of all locations, based on the age of the trucks observed.

Table 1: National Average, April 2006:

All Trucks surveyed	Trucks manufactured before 2003	Trucks manufactured in 2003	Trucks manufactured after 2003	Average
Wearing seat belt	38%	51%	50%	46.3%
Not wearing	62%	49%	50%	53.6%

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The intervention

Because of the low seat belt wearing rate among heavy vehicle drivers, ACC along with a variety of road safety partners throughout the country developed and implemented a Heavy Vehicle Seat Belt Wearing programme. It was implemented and evaluated in Hamilton and Auckland in the North Island. It was also implemented but not evaluated in Dunedin, Wellington and Tauranga.

The programme contained a number of elements aimed at delivering key information to the target audience and enforcement of legislative requirements: The elements are detailed below:

1. Articles were written and published in employer newsletters, national truck and industry magazines in January and February 2007. The articles focused on the outcome of the benchmark survey along with information related to the importance of wearing a seat belt. For example the information stated that in the event of a crash, the seat belt will hold you in your seat allowing you to keep hold of the steering wheel, possibly lessening the impact of the crash, instead of being thrown around the inside of the cab. Included in many of the articles was information negating a number of myths around wearing a seat belt. For example; Myth: It is better to be thrown clear of the wreckage in a crash; Fact: You are four times more likely to die if thrown from a vehicle.

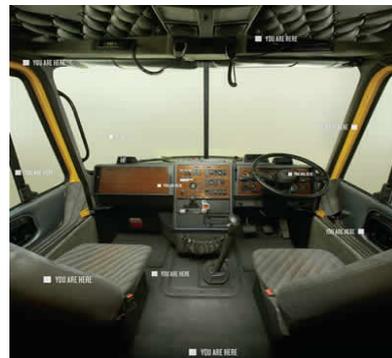
A media release generated radio and TV interviews and publication in regional newspapers engendering interest in the programme. The conversations around the programmes related the findings of the benchmark study, the social cost to New Zealand and the importance of wearing seat belts.

2. Radio ads were played on the national radio network. After surveying truck drivers regarding the most listened to stations, radio ads were developed using the programme tag line “no seat belt no chance.”

3. Billboards were developed and strategically placed in the regions where the programme was implemented. Transit New Zealand is the government agency in control of the billboard sites on public roads in New Zealand. Regional differences in billboard requirements meant that development of the billboards was ongoing for some areas.



4. Convenience posters were displayed at a variety of key locations throughout the regions. They included service stations, restaurants, and hubs of larger transport operators. There were a total of 4 posters developed, 3 utilising the billboard artwork.



5. Truck Backs, used as moving bill boards carried the message "No Seat Belt No Chance, No Exceptions".



6. An enhanced enforcement campaign was conducted with the New Zealand Police and CVIU in the month of March, 2007, in Auckland and Hamilton. A high visibility seat belt cover was created as a give away, increasing the ease of observation. The cover was distributed to truck drivers by industry associations, the Police/CVIU and ACC staff, to employers with a commercial heavy vehicle fleet. The tag line on the cover was "I'm giving myself a chance."



I'M GIVING MYSELF A CHANCE 

7. Evaluation of the programme included two observational surveys in Auckland and Hamilton. The surveys were completed at the end of March following the month of enhanced enforcement, and again 90 days later in June, 2007.

Auckland Results

Auckland is the largest city in New Zealand. It is located in the North Island and is the main transport hub in New Zealand for sea and air traffic.

In Auckland the seat belt wearing among commercial drivers improved. Table 2 showed the results of all of the trucks surveyed:

All trucks surveyed	National sample April 2006 benchmark survey n=995	Auckland April 2006 benchmark survey n=167	Auckland March 2007 follow-up survey n=221	Auckland June 2007 follow-up survey n=153
Wearing seat belt	46%	37%	37%	50%
Not wearing seat belt	54%	63%	63%	50%

In Auckland the evaluation (see Table 3) showed that among the trucks identified as being manufactured after 2003, which are required to have seat belts fitted and worn, the following was found:

Trucks manufactured after 2003	April 2006 national benchmark	Auckland April 2006 benchmark survey	Auckland March 2007 survey	Auckland June 2007 survey
Wearing seat belt	50%	49%	39%	51%
Not wearing seat belt	50%	51%	61%	49%

The results showed that at the initial observation in March there was a decrease in the wearing rates of those drivers of trucks manufactured after 2003. In the final observation, the wearing rate lifted by 2% from the benchmark observation, 90 days after the programme was implemented. Table 4 shows the results of the observations for the trucks manufactured before 2003, which the legislation says they are not required to be fitted with seat belts, but if they are fitted they must be worn, the Auckland survey showed the following results.

Trucks manufactured before 2003	April 2006 national benchmark	Auckland April 2006 benchmark survey	Auckland March 2007 survey	Auckland June 2007 survey
Wearing seat belt	38%	27%	36%	51%
Not wearing seat belt	62%	73%	64%	49%

The results showed there was an increase of 24% in the wearing rates.

Hamilton Results

Hamilton is 250 kms south and east of Auckland and a significant hub for heavy vehicle traffic between Auckland and the Bay of Plenty on the east coast of the north island.

In Hamilton the seat belt wearing of truck drivers improved. Table 5 shows the results of all trucks surveyed are as follows:

All Trucks Surveyed	National Sample April 2006 Benchmark Survey n=995	Hamilton April 2006 Benchmark Survey n=157	Hamilton March 2007 follow-up Survey n=206	Hamilton June 2007 follow-up Survey n=181
Wearing Seat Belt	46%	44%	54%	48%
Not Wearing Seat Belt	54%	56%	46%	53%

Table 6 shows that in Hamilton, among the trucks identified as being manufactured after 2003 in which seat belts are required, the following was found.

Trucks manufactured after 2003	April 2006 national benchmark	Hamilton April 2006 benchmark survey	Hamilton March 2007 survey	Hamilton June 2007 survey
Wearing seat belt	50%	47%	63%	53%
Not wearing seat belt	50%	53%	37%	47%

The results showed that an increase of 16% in wearing rates from the benchmark study to the March 2007 survey, after the month of enhanced enforcement. It fell back 10% in the survey taken 90 days later to 53% with a total lift in wearing rates of 6%.

Again in Hamilton, Table 7 shows the results for trucks manufactured before 2003.

Trucks manufactured before 2003	April 2006 national benchmark	Hamilton April 2006 benchmark survey	Hamilton March 2007 Survey	Hamilton June 2007 survey
Wearing seat belt	38%	44%	52%	44%
Not wearing seat belt	62%	56%	48%	56%

The results showed an early increase in wearing rates of 8%, but in the later observation they dropped back to the same wearing rate as the benchmark survey.

Supporting information

Separate to the observational survey in a similar campaign in the South Island, the Police Commercial Vehicle Investigation Unit in Christchurch asked drivers why they weren't wearing their seat belts. The answers were as follows:

32% said that they forgot

19% said that they didn't know they were required to wear them

15% had no reason

13% said they make several stops, and travel short distances

11% said they never wear their seat belt.

A similar programme of this nature conducted in the state of Virginia, USA, called "Be Ready Be Buckled" (Federal Motor Carrier Safety Administration, 2003). The results showed that while the wearing rate was positively affected during the campaign and for a short period of time after the campaign, 6 months later the wearing rates started to drop off again. The recommendation was that if the issue was not continually in the driver's media, the wearing rate would drop off.

Conclusion and next steps

Anecdotally drivers have indicated that they have air suspension seats and their seat belts are connected to the pillar of the cab, so when the seat moves to lessen the impact of bumps, the seat belt tightens and can cause an injury

or at the very least is uncomfortable. Some truck drivers have related that they have had, or know of someone who was saved by not wearing their seat belts in a crash. While this may be true, the stories and the statistics related to the benefits of wearing seat belts seem to far out weigh the negative effect. Of interest, in conversation with truck drivers, most will say that they wouldn't drive their car without wearing their seat belt.

For the next year ACC intends to keep this issue in front of truck drivers. A second national benchmark survey will be conducted in April 2008. Prior to this survey, radio advertising will continue to be used. A new convenience poster will be developed along the lines "If it's fitted, you have to wear it." Police commitment to enhanced enforcement will continue throughout 2008. The availability of the seat belt cover will continue. Articles reporting the results of the surveys will be published in New Zealand Trucking magazines. Encouragement will continue related to the importance of wearing seat belts. Recommendations will be for companies to require seat belt wearing to be compulsory as a policy, and enforcing the policy. It took several years for drivers of the light vehicle fleet to habitually wear their seat belts. It may be the same with truck drivers.