

Corporate initiatives to improve road safety and the associated productivity and environmental benefits

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Abstract

The number of deaths and serious injuries on Australian roads has fallen significantly over the past 30 years. This reduction has largely been attributed to changes in behaviour resulting from community education, government enforcement and regulation, as well as improvements in vehicle standards and road upgrades. Work-related road crashes in Australia account about half of all occupational fatalities and 15 per cent of national road deaths. Decisions taken by industry improve road safety both by changes to their own operations and by influencing the behaviour of others. This paper identifies actions that have been taken by individual company or group of companies (in an industry sector or along a supply chain) and their impact on safety and productivity and the environment through a case study approach. The case studies demonstrate that companies which are implementing road safety initiatives do not perceive this as a cost but as good business.

Introduction

The number of deaths and serious injuries on Australian roads has fallen significantly over the past 30 years, despite substantial increases in population and the number of registered vehicles on the road. This reduction has largely been attributed to changes in behaviour resulting from community education, government enforcement and regulation, as well as improvements in vehicle standards and road upgrades. Australian governments – federal, state and local road authorities – have introduced a range of targeted road safety initiatives to reduce road deaths. These initiatives included the mandatory fitting of seat belts in new vehicles, random breath testing and the introduction of camera-based speed enforcement. All have contributed to this continuing decline.

The corporate sector – including transport operators, transport users and other businesses that rely on road transport – can have a major influence on the safe operation of the road transport network. Work-related road crashes in Australia account about half of all occupational fatalities and 15 per cent of national road deaths, and many people are killed or seriously injured while travelling to and from work (ATC, 2011). Decisions taken by industry – as well as individual corporate safety cultures – affect how employees, customers and suppliers use the road network. They must be encouraged to take the responsibility for ensuring their decisions contribute to improving road safety as part of a shared responsibility for road safety. It is recognised that the continuing and central role for government in providing the physical and regulatory environment in which road transport takes place. However, it also frames the potential for the corporate sector to help improve the overall safety of the road network as both an organisational and community benefit.

This has two aspects – the potential to influence the behaviour of others (customers, suppliers, business partners) and the adoption of measures to improve safety within their own organisations.

Corporate involvement in road safety

Corporate involvement in road safety is being harnessed internationally by a variety of means, such as the European Transport Safety Council's PRAISE (Preventing Road Accidents and Injuries for the Safety of Employees) program. This program covers all safety aspects of driving 'at' work and driving 'to' work. It aims to recognise best practices to assist employers secure high road safety standards for their employees. In particular, it promotes the value of work-related Road Safety

Management with the intent of raising the work-related road safety standards of EU Member States. Other approaches include the European Charter for Road Safety, which has been developed as a European Commission initiative to engage companies in road safety. It provides member organisations, who must commit to ten principles that link strongly to good corporate social responsibility, with the opportunity to share and learn from ideas and practices to improve road safety in Europe.

More broadly, the international standard – ISO 39001 "Road Traffic Safety Management provides a standard for management systems for road traffic safety. The implementation of the standard should provide organisations that interact with the road transport system the opportunity to improve safety associated with the transport demand created by their operation.

The work described in this paper was undertaken in the context of a broader project assessing whether such schemes could contribute to improved road safety outcomes in Australia.

Corporate safety investigation

A literature review undertaken at the commencement of this work (Mooren et al., 2011) identified the elements of existing safety schemes that could relate to advancing Safe System approaches to road safety through the actions of industry. It also examined safety management practices more generally to explore the feasibility of applying these practices in the Australian corporate context. It found a number of consistent elements of safety management that are associated with good safety performance. These findings formed the basis for a discussion paper released in June 2011 (NTC, 2011).

Extensive national consultation was then undertaken to identify the willingness and scope for corporate activities to improve road safety, and to identify organisations which already had schemes in place which provided demonstrable benefits to their organisation. This covered two types of scheme – those with the potential to influence the behaviour of others (customers, suppliers, business partners) and those that involved the adoption of measures to improve safety within their own organisation.

Interviews were undertaken with companies identified through the consultation process, focussing on the reasons that lead the company to adopt specific measures to improve road safety, and on the impacts that those measures had had on the company's operations. Areas of particular interest included impacts on efficiency, productivity, profitability, environmental performance, and, of course, the effects on road safety.

This paper describes actions that have been taken by an individual company or group of companies (in an industry sector or along a supply chain) and the extent such initiatives have improved road safety and benefited the businesses involved. It also discusses the opportunity for knowledge transfers within industry sectors and the implications of such initiatives to the wider community.

Case Studies

This paper is focused on five organisations where road transport is central to enabling their business operations.

Two companies, a freight forwarding service specialising in supermarket supply (BFS) and a tanker operator carrying milk, chemicals and dangerous goods (McColl's Transport) are heavy vehicle companies for whom their core business is freight transport. The third company is a steel manufacturer (BlueScope), for whom a large part of their core business relies on transporting their materials by road. The fourth is mining resource company (BHP Billiton) where light vehicles are

utilised to mobilise their workforce in harsh conditions. The fifth company is a not-for profit aged care and community service provider (Uniting Care Queensland) who rely on the roads system and their own workers private vehicles to provide the businesses community support.

A common attribute of the companies examined to date is their willingness to share information and collaborate with like-minded organisations. McColl's Transport, for example, stressed that 'there is no trademark on safety'. BFS noted that one of the biggest challenges they faced when beginning their road safety journey was a lack of examples for them to model themselves on – they had to start from scratch.

Each of the case studies discussed in this paper was chosen to highlight particular aspects and strengths of the approach used in particular organisations.

Case Study 1: Busselton Freight Services Case Study: 'Road safety, compliance key drivers in company growth'

'Scrutiny does come at a cost; the benefit is that observance influences all other areas of the business.'

Busselton Freight Services (BFS) is a small family company that performs supermarket and retail distribution within metropolitan & regional areas. BFS's fleet contains approximately 50 vehicles including prime movers, rigid trucks, trailers and dollies and training vehicles. As well as freight transport, the company also runs a training arm which delivers driver training for clients in a number of heavy vehicle and rigid competencies.

BFSs' strong focus on safety and compliance has been a cornerstone of its continuing growth, and helped the company build a reputation as a professional and industry-leading operator. Drivers don't apply to BFS if they are not willing to undergo the compliance, induction and drug testing regime that has become well known throughout the WA transport industry. That reputation reassures clients and results in only the most professional drivers working at BFS.

While the company employs technology platforms to monitor driver behaviour for compliance with safety procedures, a key part of its approach to building a safety culture has been to use the data collected to educate drivers about required practices. Positive behaviours are acknowledged and reinforced, and where drivers are found to be lacking surveillance or monitoring data is used to highlight where improvements are required.

Close consideration of the operational issues confronting their drivers were the initial source of the company's safety initiatives, but it was central to their successful implementation that initiatives were driven from the highest levels of management. BFS recognises that learnings from its training arm that had subsequent flow on safety of the freight forwarding operations of the company. The company also notes that one of its initial challenges was the lack of examples from which it could model its safety program highlighting the benefits that can come from the sharing of information and good practice.

Specific actions undertaken beyond the specific legal obligations included introducing a requirement for journey plans, for drivers to keep a diary of events that affect the safety and operational success of their journey. This is particularly significant for remote area work,

Where the delivery involves more than a single day's travel, both the driver and the customer are briefed & provided a base trip plan before departure, which the driver can vary to deal with delays or local issues if necessary. Costing of remote area deliveries includes an allowance for such delays to ensure that time pressures do not lead to unsafe driving practices.

Audits are undertaken to confirm compliance, with the auditors required to confirm that drivers are not pressured into making unreasonable trip deadlines. BFS also engages the services of accredited driving instructors to regularly assess each driver (including subcontractors). This includes on road video surveillance and the observation of loading and unloading on customers' premises.

Due to its extensive internal measures, as well as BFS has been able, in recent years, to demonstrate significant inroads in safety, particularly around fatigue and crash data.

Improvements for BFS in the area of fatigue management have resulted in the number of breaches falling from 105 in 2009 to 39 in the 2011, with only 2 fatigue breaches recorded to mid-2012. The number of crashes involving the company's vehicles has also fallen by 15% from 2009 to 2011 despite the increase in kilometres travelled (Figure 1). Whilst the high level of scrutiny and compliance came at a financial cost, the savings (Figure 2), internal flow-on influences and customer loyalty have more than made up for it.

Figure 1 – Incidents by kilometres 2008 - 2011

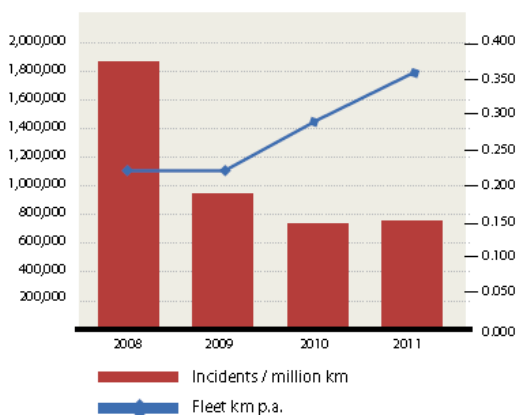
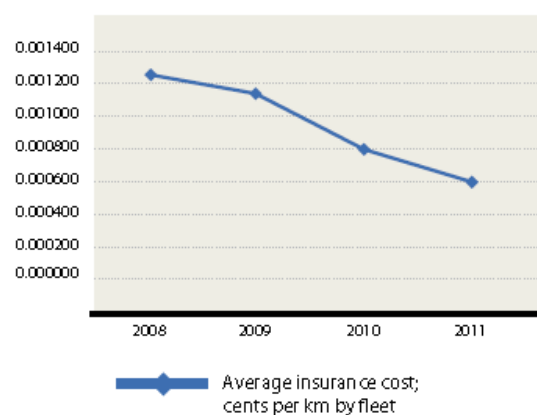


Figure 2 – average insurance costs by kilometre travelled



Although this level of scrutiny does impose an additional cost to the business, the benefit is that observance influences all other areas of operations, and contributes to an overall reduction of crash related cost, and a now well-established culture of safety and compliance.

Case Study 2: McColl's Transport Case Study: 'Safety is unconditional at McColl's Transport'

'Investing in OH&S can have financial paybacks'

McColl's Transport is large independent milk, chemical and dangerous goods transport carrier. It provides logistics and carrier services around Australia employing approximately 600 drivers.

McColl's Transport began their safety journey after a particularly bad 'run' of safety outcomes, including multiple vehicle rollovers. Prior to embarking on the safety overhaul, this company was averaging one heavy vehicle rollover per month.

A decision was taken at chief executive level to change the safety culture to 'safety first'. New managers were employed and empowered to implement initiatives to change the existing culture to one that gave first priority to safety. The safety initiatives included overhauling a number of pre-existing practices, including modifying the timing and method of drug and alcohol testing, 'on the spot' driver license checks, stringent guidelines were put in place and enforced around work diaries for all drivers, not just line haul drivers and a review of the types of work undertaken by the company. In-vehicle monitoring to provide managers with immediate alerts of serious over-speed incidents or breaches of driving hours were introduced and have contributed to developing a culture in which unsafe behaviour is not tolerated.

“A good place to look for the success of a business is in its safety practices. If safety is well managed then the rest of the company is probably pretty tidy. If safety is a mess, then it is likely that the other key functions are also falling apart.”
 Simon Thornton CEO

McColl’s Transport also identified business segments that were resistant to change. Following discussions with their insurers on risk profile and mitigation issues, one of these business segments was sold rather than continuing to operate it and carrying the risk.

One recent initiative is the purchase of a truck mounted driving simulator to provide drivers with the chance to recognise and learn to deal with difficult situations such as a steering tyre blowout or brake failure. All drivers are required to spend at least 8 hours a year in it, similar to airline pilots. The company has stated that drivers who have used the simulator have outlined the safety benefits, including feeling better prepared and able to handle adverse road conditions and situations they may encounter.

On the surface, McColl’s overheads appear higher because it has safety infrastructure in place that enables it to guarantee compliance with the law and therefore the safe and efficient delivery of goods. However, savings made in other areas, including insurance premiums, WorkCover claims and accident operating costs, contribute to the company’s overall good financial outcomes.

The outcome of these initiatives has been to deliver significant safety and productivity benefits. The cost of compulsory workplace insurance claims has fallen from over \$1.6 million in 2009, to below \$100,000 in 2011 as shown in

Figure 1. Operating crash costs have also decreased from around \$1.3 million p.a. to around \$200,000 p.a. over the same period as shown in **Error! Reference source not found.**

Figure 1 – WorkCover claims cost history FY09 to FY12

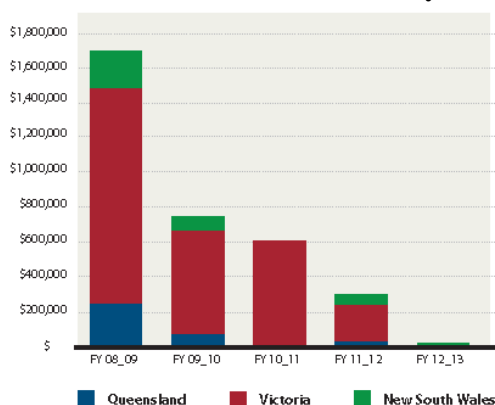


Figure current at September 2012

Figure 2 – Operating accident costs

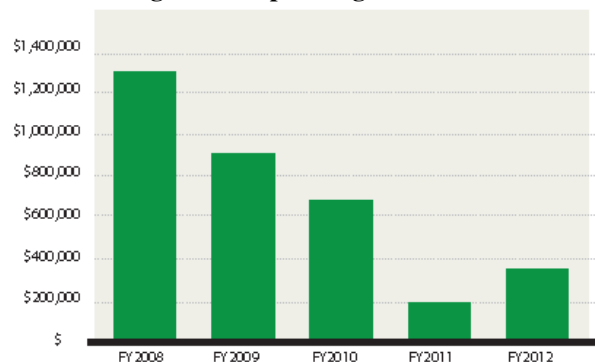


Figure current at March 2013

In short, there has been a significant reduction in insurance claims and in accident operating costs across this Company’s national operations in the 3 years since a significant overhaul of safety has been undertaken. In addition to the obvious benefits stemming from improvements in road safety practices, there are bottom-line savings achieved through savings such as reduced insurance premiums, fuel, and the obvious savings achieved through a decrease in serious injuries and deaths.

McColl's Transport also reports that their recent track record on safety has afforded them a workforce advantage, with many drivers attracted to the safe working conditions and the knowledge that they will not be 'pushed' to achieve unreasonable timeframes in the course of their duties.

McColl's Transport have been active in sharing learning and knowledge across the industry, with an example being collaboration with a state road agency on the development of a training DVD to promote understanding of the causes of truck rollover, as well as demonstrate effective measures for roll-over prevention.

Case Study 3: Blue Scope Steel: 'Partnerships with industry bodies are an effective way to influence practices across sectors and along the supply chain'

'Working to Improve Road Transport Safety'

Blue Scope Steel is a leading steel company in Australia and New Zealand, supplying a large percentage of steel products sold in these markets. The transportation of steel and steel-related products is an integral part of the company's core business. The transportation is, however, largely undertaken by third party carriers.

Working safely is a condition of employment for Blue Scope Steel, and the zero harm approach adopted for operations on the company's own sites is also applied to transport and customer operations. This includes developing PBS vehicles specifically customised for the safe carriage, restraint and loading/unloading of steel. Guidelines have been developed in consultation with end users – transport, customers, drivers and depots – and drivers are trained and become accredited in loading each specific type of steel. They are then provided with a step-by-step illustration guideline for loading each type of steel to help remind drivers of the process.

Blue Scope Steel has joined with other manufacturers to form a Transport Safety Network Group to help improve heavy transport road safety. This group has developed an Australian Steel Industry "Chain of Responsibility" Code of Practice, which prescribes minimum and preferred behaviours to comply with Australia's Chain of Responsibility legislation.

Australia has incorporated the Chain of Responsibility principle into road transport law for heavy vehicles covering heavy vehicle driver fatigue, mass, dimension and loading and speed compliance. The Chain of Responsibility principle, simply stated, is:

all who have control, whether direct or indirect, over a transport operation bear responsibility for conduct which affects compliance should be made accountable for failure to discharge that responsibility.

Under Chain of Responsibility everyone in the supply chain, not just the driver, has responsibilities to prevent driver fatigue and ensure drivers are able to comply with the legal work/rest hours regulations, as well as mass and dimension limits and speed limits. If actions, inactions or demands cause or contribute to safety breaches, not only transport operators, but also consignors, receivers and loaders and unloaders can be held legally accountable (NTC 2008).

The Code in place in Blue Scope Steel and its supply chain specifically targets load restraint, mass and dimensions, driver fatigue and contractor safety management. The Chain of Responsibility Code of Practice also seeks to engage industry participants throughout the entire transport supply chain in adopting measures to mitigate heavy vehicle road accidents and infrastructure damage (Australian Steel Institute 2012).

Blue Scope Steel has now reached a point where it incurs less than one injury resulting in lost time for every million hours worked. These efforts have lowered the likelihood of injury for a

considerable number of people. Globally, in the steel industry, the safety performance of Blue Scope Steel is cited as a benchmark and recognised as a leader in safety.

During the year, Blue Scope Steel reported an improvement in its Lost Time Injury Frequency Rate, further reducing this number of lost time injuries from million hours worked from 0.9 in 2010 to 0.6 in 2011. The Medically Treated Injury per million hours worked also lowered from 5.0 in 2010 to 4.4 in 2011.

In addition to the invaluable safety outcomes, through its advanced engineering work around load restraint, Blue Scope Steel has also been able to achieve significant efficiencies around loading and unloading times – reducing production costs and bringing down the number of trips required to transport materials, all cost savings.

Case Study 4: BHP Billiton: ‘Simplicity drives safety improvements’

BHP Billiton (BHPB) is the world’s leading diversified resources company and the largest by revenue. It has a large fleet of company light vehicles plus thousands of contractor light vehicles onsite, all sharing challenging road conditions with heavy trucks and machinery. Historically, rollovers and other vehicle safety incidents were frequent, though rarely fatal. The business impacts of such incidents generally included lost work time for the injured employees, vehicle damage, lost time from “stop works”, and the costs of resourcing crash investigations.

In Australia some 30% of light vehicles used by BHPB were 3 star ANCAP (Australasian New Car Assessment Program) and there was no minimum NCAP requirement for vehicles used. Ninety percent of LVs did not have side or dual airbags or electronic stability control (ESC).

Light vehicle safety consistently topped BHPB’s list of material safety risks, had recognised impacts across the whole business, and affected employer, contractor, and supplier relationships. The light vehicle safety philosophy tended towards reactive risk mitigation, rather than a focus on eliminating the source of risk. Every time a light vehicle was involved in a significant incident, a new safety feature was added.

The company was spending up to \$30,000 retrofitting aftermarket rollover protection (ROPS) cages, bullbars, battery isolation switches, wheel nut indicators, fire extinguishers, flashing lights and other safety features. This approach was at the discretion of individual businesses, according to their individual safety specifications, and on top of company-wide minimum safety standards. The time taken to get a vehicle 'mine site ready' could be up to 10 weeks.

BHPB was no longer just a miner: it was changing and potentially compromising automotive design, without having clear data on whether its safety investment was achieving the improvements to safety outcomes intended. It was time for a change in thinking and to embrace safety by design.

The key aspects of BHPB’s journey towards adoption of the NCAP 5 star safety standard for light vehicles included:

- Reappraising its risk management controls
- Better understanding the problem through research
- Undertaking independent crash testing of light vehicles
- Seeking a simpler solution
- Championing change
- Adapting to a changing world
- Phasing in a new global policy to cater for contractors.

Gather the extensive external research and an internal test crash project underpinned the business decision to adopt the highest NCAP standard. Real-world incident data shows that each additional NCAP star translates into a 10% reduction in occupant fatalities, so 5 star was an attractive goal. In 2012, BHP Billiton appointed CrashLab NSW to crash test four end-of-lease Toyota HiLux dual cab light vehicles - straight off a Queensland coal mining site where they were the most common LV workhorse - by putting them through a series of common crash tests. The results provided the evidence to further support the policy.

The BHPB safety team sold the business case for a new safety regime by promoting the increased protection it would afford staff while reducing and simplifying the cost of compliance - better safety didn't have to be more expensive. Businesses were free to choose any LV model so long as it was 5 Star NCAP compliant and aftermarket equipment was not fitted. The retrofitting of aftermarket safety features was complex and costly for the company and contractors. Most importantly, it did not always translate into enhanced safety outcomes.

From a business perspective it also provided an adaptive policy which evolves with vehicle safety solutions. BHPB is now collaborating with vehicle manufacturers to meet the demands of the markets for one of their biggest clients. The company has also influenced the safety practices of one of Australia's biggest rental car businesses - for whom BHP Billiton is a major client - such that they are upgrading their entire fleet to 5 star standard.

“The vehicle manufacturers are saying it’s good that we know what you want and we can start working towards that. They will only build 5 star vehicles if they understand there’s a demand for them.”

BHPB has continued to champion their policy across the fleet sector so others may follow.

Case Study 5: Uniting Care Queensland Case Study: ‘Cutting accidents and reducing insurance premiums’

‘A road safety focus put Uniting Care Queensland in the black

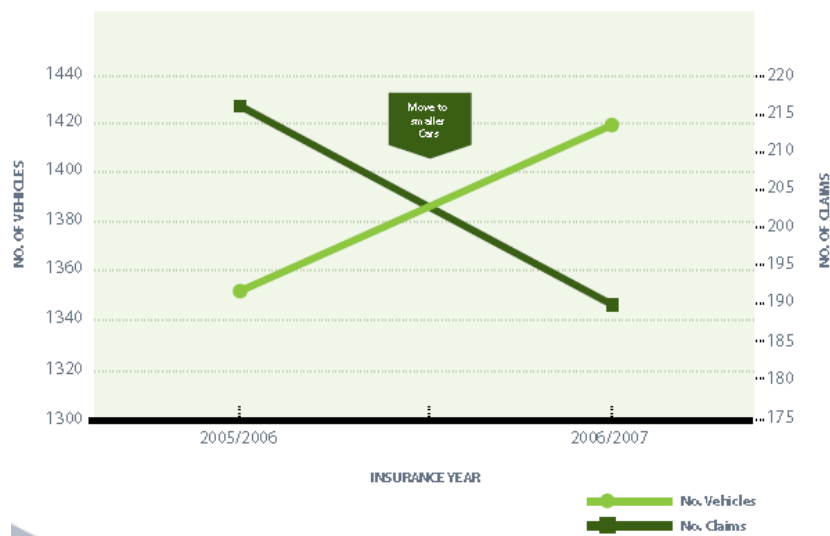
Uniting Care Queensland (UCQ) is one of Australia's largest not-for-profit aged care providers delivering community nursing services since 1953 in metropolitan, regional and remote Queensland and northern New South Wales. During the early days, community nurses used public transport to travel to clients' homes. Since then, Uniting Care Queensland's fleet has grown to more than 2,130 vehicles that travel 32 million kilometres each year. This includes some staff using their own vehicles. The fleet will continue to grow as demand for more community services increases.

Before 2005, vehicles were managed at a local level using a spreadsheet or simple database. From 2005, all vehicle management was centralised on an outsourced fleet management database with the physical management split between a contracted fleet management company and the Blue Care Fleet Unit of four full-time staff. There was very little data that could be used to analyse and determine where risks existed to put in place risk mitigation interventions. The data that was available indicated a high number of at-fault crashes. The move to smaller cars went some way to reducing the number of crashes, especially reversing crashes (see Figure 3).

What is integral in driving the road safety change was capturing the executive and managements support. In the case of UCQ's road safety program, the first step in gaining executive support was relatively easy as the program aligned with one of UCQ's principle values: to value staff and volunteers. Integral to gaining this support was that the program would be funded out of rebates from vehicle purchases and insurance premiums. Committing these funds and removing the financial burden from the cost centres' operational budgets guaranteed centre management support.

By illustrating and being able to measure results, this assists in sustaining the ongoing support and introduction of new resources and tools to maintain the focus on road safety.

Figure 3 – At fault claims compared to vehicle numbers



A road and vehicle safety program was designed and delivered in consultation with internal stakeholders and peak bodies, ensuring acceptance by staff and the embedding in organisational culture from the top level of management to drivers at the coalface. It became obvious that the acceptability of and compliance with the program would be more likely if key external partners were associated with it. To add credibility to the program, external collaborators were selected because they were icons that UCQ drivers recognised and respected for their contribution to driver safety.

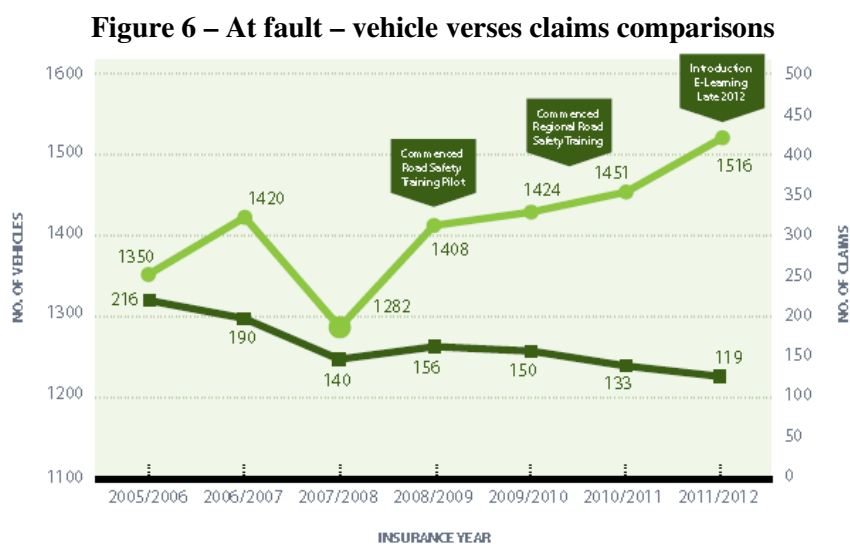
Through the established relationship with RACQ roadside assistance UCQ was able to draw on their experiences services to develop and review road safety and operation of fleet vehicles. UCQ also drew on the resources of road safety experts, CARRSQ to ensure what their road safety initiatives were based on evidence and backed by research. The road safety journey to date has included:

- In-house Driver Safety Awareness training sessions;
- E-learning program aimed at assessing the skills of new staff and as a refresher for existing staff, especially those in remote areas. The program addresses key elements of the national workplace safety harmonisation legislation and will be in place by the end of 2012;
- Driver evaluations and rectification interventions;
- Non-conformance training and assessment packages. Non-conformance includes traffic infringements, crashes, confirmed complaints from other drivers or passengers, and inefficient driving as a result of data analysis;
- Data analysis of all elements of fleet operations to identify efficient and inefficient vehicle operations and from the data program driver interventions and procurement policy; and
- Frequent communication through a range of mediums promoting fleet safety and sustainability. Methods include internal newspaper, magazine, email, poster campaigns, driver handbooks and staff meetings.

The results of this training and the resources distributed are evidenced by data that shows a drop in at-fault accidents and infringements compared to growth in vehicle numbers. **Error! Reference**

source not found. shows reductions that have been achieved against the number of vehicles in the UCQ fleet since 2005. The success of the program is highlighted by:

- Blue Care's insurance premium did not rise in the 2010-2011 insurance year, compared with most fleets where there was at least a 10% increase;
- Blue Care's insurance premium for 2011-2012 reduced by 3%;
- a 10% decrease in at-fault accidents between 2008 and 2011 against a 10% growth in fleet numbers;
- a 35% reduction in fail to give way accidents;
- an infringement rate at an average of one per month for every 150 cars on the road compared with a range of 1 to 95 in 2008, which has occurred in the context of increases in the number of fixed and mobile photo units; and
- building a solid foundation that will ensure a culture of road and vehicle safety within Blue Care.



Discussion

As illustrated by each of the case studies, safety ranks highly or as the top issue within their workplace, and this is being translated to the on-road transport activities associated with the companies' businesses. Organisations have demonstrated a commitment to road safety practices from a workplace risk management perspective including around OH&S, Chain of Responsibility, operational maintenance, fatigue management, employee training and creating a safe workplace environment. Those companies that have been able to pass their experience in improving safe transport operations on to the industry through their relevant industry associations report that this is a valuable means of getting cooperation from both customers and suppliers. Industry developed code of practice provides a strong base-line. The work of Blue Scope Steel in developing an accredited code of practice for the steel industry has been integral in raising standards across the industry as a whole. Hanson is now also leading through its industry body to have a code of practice based around its standard operating procedures.

Safety initiatives implemented by the organisations studied have demonstrated environmental and financial benefits, as well as a safety benefit. Addressing safety includes not only crashes (and hence related deaths and serious injuries) being reduced but also operating costs decreasing. For example, preliminary analysis has indicated in the four years since McColl's Transport introduced a range of road safety initiatives (technology, training, monitoring and KPIs) it had not had a roll-over, death or serious injury. This correlates to significant savings for the business that easily

covered the associated implementation costs so much so that the cost of the \$500,000 simulator was captured in the savings generated through the improved road safety culture. The high level of scrutiny and compliance road safety initiatives introduced by BFS came at a financial cost, the savings, internal flow-on influences and customer loyalty more than made up for the cost outlay.

Safety is driven from the top down but the approach is developed through a two-way conversation to ensure that it is feasible and practical. Whilst improving road safety is a must, to support major cultural changes requires evidence and a solid business case. The executive must be confident that the proposed approach will not only make a difference but also assist in reducing the company's bottom line. For example throughout the case studies the executive understood the benefits of improving road safety but when the cost savings were illustrated and then realised, ongoing road safety initiatives and management buy increased.

Road safety champions are eager to collaborate on the sharing of road safety practices, initiatives and approaches on common issues so the companies, sector, community and public all benefit. BFS noted that it faced challenges in starting its program from scratch, and would be willing to share its experiences to spare other organisations the same hardship. UCQ has been willing to become a mentor for other organisations to assist in creating a positive road safety culture. BHPB has been championing the simplicity of their 5 Star Car ANCAP policy to other fleet managers highlighting their purchasing power and the long term influence of their decision on the future safety mix of Australia's entire fleet.

Putting strong evaluation and monitoring systems in place can identify safety issues before they result in injuries. This allows the company to deal directly and constructively with a problem based on a long term focus. Technology is an enabler in this process. It is only one component of a safety strategy and must be linked with human training, engagement and support. Those companies in the case studies that had committed to the use of in-vehicle monitoring or other technologies found them most effective as a tool for providing drivers with feedback on their driving. This could lead to better driving performance in a way that allowed changes to be monitored and, if necessary, targeted for further improvement. Use of a simulator to provide experience with rare but hazardous conditions is one example of this.

Conclusion

Organisations shouldn't view their operations as being limited to traditional approaches in road safety risk management (policy, procedures, education and training), there is a lot of opportunity for new and developing initiatives that go beyond these traditional approaches. This does not mean that the above approaches are not required, just that there are other opportunities that should be considered that provide long term, sustainable change.

Private sectors, research bodies and governments can work well together, developing sound group think outcomes. Demand can also influence supply when it comes to safety as long as the correct relationships between stakeholders are formed.

A key learning from the project has been that the 'top level management' of organisations can have a profound effect on the road safety outcomes achieved within a company.

It is paramount for the successful delivery of road safety that there is a logical, robust to scrutiny and data rich story which engages both management and operational levels of the organisation.

The provision of sound ongoing evaluation and monitoring is critical to the sustainability of successful road safety implementation within a workplace environment.

This project has highlighted the implementation of road safety initiatives carries with it a burden of demonstrating the value-add in many organisations (eg, for those where these initiatives do not come from the top-down). It can be hard to convince the CEO or CFO that outlaying money on road safety now will have benefits for the organisation later on. However, in the cases where the progress of initiatives has been monitored, there are demonstrated examples illustrating that investing in safety does have medium and longer term financial and environmental pay offs.

Positive road safety outcomes has a positive flow on effect measurable through productivity and environmental benefits,. Preliminary findings from the project have shown that good results present themselves when Safe System modelling is applied and a ‘culture of road safety’ is ingrained within the company and in the minds and actions of employees.

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Interviews

In preparing this paper, interviews were also conducted with:

- Busselton Freight Services
- McColl’s Transport
- BHP Billiton
- Blue Scope Steel
- Uniting Care Queensland