

Contributed articles

“Smarter travel @ work”: achieving road safety outcomes by reducing workplace travel

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Introduction

The fundamental risk of being involved in a road crash stems not from elements of driver behaviour or the driving environment but rather from exposure to the road system in the first place [1]. Removing people from the road thus has an immediate impact on crashes. It is estimated that for every 1% reduction in vehicle kilometres travelled (VKT), there is a corresponding 1.4-1.8% reduction in the incidence of crashes [1, 2]. As such, interventions aimed at car trip reduction or encouraging the use of safer public transport are being strongly promoted by peak bodies such as the WHO as an effective way of preventing road traffic injury [3].

The ability of workplaces to impact on road safety by reducing car travel has been emphasised in ISO 39001, the new standard in road safety management systems. One of the key safety performance factors an organisation must consider when accrediting to ISO 39001 is safe journey planning: making conscious strategic choices about mode of transport, route choice, and whether to travel at all [4].

Smarter travel @ work is a voluntary travel behaviour change program offered to workplaces by the South Australian Department of Planning, Transport and Infrastructure (DPTI). The program works with workplaces around their staff commute and business travel, looking to reduce single occupant car use in favour of safer, greener and more active travel. By assisting workplaces to reduce the VKT of their staff, *smarter travel @ work* is contributing to improved road safety, as well as to other transport policy drivers such as reducing transport emissions, reducing congestion and improving use of public transport.

Using voluntary travel behaviour change to reduce vehicle kilometres travelled

DPTI has been delivering travel behaviour change programs to varying degrees since 1999. Initially these programs were aligned with Travelsmart SA, which was developed as the core action for the transport greenhouse action agenda. More recently the programs have evolved to use travel behaviour change tools and methodologies to encourage safer, greener and more active travel through reductions in car use. This is achieved through encouraging individuals to make more informed travel choices to substitute car trips with another option, reduce the distance travelled by car or eliminate the need for some journeys [5].

Voluntary behaviour change techniques as used by DPTI have been found to be quite effective in achieving VKT reduction. For example, TravelSmart Households engaged with households in the Western suburbs of Adelaide between 2006 and 2008. The project achieved an 18% reduction in VKT among the 22,103 participating households, in contrast to a 6% increase in VKT among non-participants [6]. This VKT reduction led to 505 fewer crashes in the project area across the three years of the project; an improvement in road safety valued at approximately \$19 million [7]. In addition to these road safety outcomes, DPTI's voluntary behaviour change programs have significant social, economic and environmental benefits [8].

Historically, the workplaces program had a strong public sector focus, working predominantly with large government departments based in the Adelaide CBD to help them meet transport greenhouse gas emission targets. In 2011, following a review, the program was re-launched as *smarter travel @ work*. This marked a move to also working with private workplaces within targeted local government areas, in partnership with the local council. The program is currently being delivered to workplaces in three local

government areas within metropolitan Adelaide, as well as one regional council.

To broaden the appeal of the program to workplaces within these locations, a more streamlined, client-centric process was developed. Instead of requiring workplaces to align to broad government targets around road safety or greenhouse emissions, the program is aimed towards the agendas of individual workplaces. This approach has made it significantly easier to recruit workplaces to participate [9]. The 26 workplaces currently participating in the program have joined *smarter travel @ work* for a variety of reasons; this has included a sustainability or road safety focus for some, but for many others the focus has been on cost savings, staff health and wellbeing, or relieving site-specific issues around parking. From DPTI's perspective it does not matter why the workplace is motivated to reduce VKT, it just matters that they are reducing VKT, as this will in turn lead to road safety improvements.

The *smarter travel @ work* process

The process for workplaces participating in the *smarter travel @ work* program is shown in Figure 1. This commences with a research phase, where current workplace travel patterns are explored; an implementation phase, where the workplace takes action to encourage staff to change their travel behaviours; and an evaluation phase, which assesses the impact these actions have had on travel.

Research

The key part of the research phase is a staff travel survey. The survey collects information relating to staff travel for work, including commuting, reasons for travel, route taken and potential interest in alternative travel arrangements. Information is also gathered from the workplace on things such as staff numbers, working hours, end of trip facilities and work travel policies. The information gathered is then analysed by DPTI and the key findings are presented back to the workplace, along with recommendations on initiatives that are likely to be successful.

Implementation

Following the research phase, the workplace then determines the delivery of initiatives. DPTI can assist in scoping, costing and refining programs. Workplaces can apply for a grant to support the implementation of their initiatives through DPTI's Community Grants program. They also join the *smarter travel @ work* network, which provides them the opportunity to be informed about what other workplaces are doing to support safer, greener and more active travel.

Evaluation

Twelve to eighteen months after the initial survey, once the workplace completes its actions or projects, staff are re-surveyed. This second survey is designed to measure:

- changes in car use and other modes;
- changes in perceptions;
- participation in initiatives and;
- future opportunities/ideas.

Following the second survey the workplace may decide to continue to deliver initiatives to achieve safer, greener or more active travel. They may also choose to continue to participate in the program with reduced DPTI support.

The first workplaces recruited under the re-launched *smarter travel @ work* program are currently reaching the evaluation stage of the process.

Changing work travel – workplace initiatives

Workplaces participating in the *smarter travel @ work* have implemented a variety of initiatives to support staff to undertake safer, greener and more active travel to and for work. Popular actions include journey planning, providing targeted travel information as part of induction and on an intranet or noticeboard, nominating travel friendly members of staff, providing public transport tickets for work trips and helping to organise carpooling.

For workplaces looking specifically to reduce work travel by car, common approaches are to promote public transport usage, to encourage shared car trips, or to use teleconferencing and video conferencing to remove the need to travel altogether. Below are a few case studies of workplaces that have successfully changed work travel.

Public transport: Australian Institute of Management, South Australia

In 2011 the Hindmarsh-based office of the Australian Institute of Management, South Australia (AIMSA) won the City of Charles Sturt Sustainable Business of the Year award. To build on this success and interest in sustainability, AIMSA joined *smarter travel @ work*. One of their aims was to increase public transport use among staff, contracted trainers and clients. Free public transport tickets are now offered for staff travelling to work meetings. With the help of DPTI, sample journey plans and maps were developed highlighting nearby public transport options and an information session for staff, trainers and clients was delivered. Feedback from AIMSA staff has been very positive, with staff discovering that travelling by



Figure 1. *smarter travel @ work* process

public transport provides an opportunity to work on the go. For AIMSAs itself, a move to public transport has resulted in reduced travel expenses and car park demands. In addition, it is a safer way to travel, with public transport carrying a much lower risk of injury incidents than driving [1].

Carpooling: Minda Inc.

Minda Inc. received a grant to purchase and implement a new electronic carpooling and fleet booking system, with the aim of reducing the size and use of the existing organisational car fleet of 90 vehicles. The system enables carpooling for work travel by linking staff members travelling to the same or nearby destination. It also links with local public transport to ensure staff members are provided with details of the safest, greenest and most active travel available. The project has resulted in a reduction of three fleet vehicles, which for Minda Inc. means an annual saving of between \$24,000 and \$30,000 and a saving of over 21,000 kilometres of car travel.

Web-based teleconferencing: Partners in Grain

Partners In Grain received a grant to assist with the introduction of webinar software. The grant was used to purchase and install the software and to provide training and information to staff. Installation of this system alone has meant that three of the four meetings conducted annually by Partners in Grain are now able to be hosted

online. This has already saved over 11,000 kilometres of car travel (with an estimated 8,454 car kilometres being saved each year). The project has been so successful that other organisations with a wide geographic spread, including Precision Agriculture Australia from Sydney and Riverine Plains Farming Systems from Victoria, have contacted the project coordinator with a view to also installing Webinar software in their organisations.

Future directions

DPTI takes a continuous improvement approach to all of its travel behaviour change programs. As evaluation results become available from the first workplaces to join *smarter travel @ work*, DPTI plans to review the program to identify ways to strengthen its approach to improving road safety. This may include exploring alignments with the road traffic safety management standard ISO 39001, as well as other Australian workplace road safety programs such as the National Road Safety Partnership Program [10].

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Corporate Road Safety: an opportunity to reduce the road toll through integrated Government policy

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Introduction

As a component of its National Road Safety Partnership Program draft strategy, the Australian National Transport Commission (NTC) recently consulted with stakeholders regarding the future for Corporate Road Safety in Australia, focusing on the major role that industry can play in improving road safety in Australia. This paper draws on and extends our submission, which can be seen in full on the NTC website [1].

Contemporary road safety focuses on key public safety factors, yet globally few governments have explored road safety from an occupational perspective. Road travel is the biggest traumatic cause of worker fatalities in most westernised countries, and an increasingly recognised injury and fatality burden in many others [2].

Corporate road safety is poorly addressed in existing Australian and other international regulatory regimes, with the work-road injury burden frequently falling between work and road safety policy and regulatory practice [2]. In contrast, Work Health and Safety (WHS) regimes are well established in many countries. It is proposed that these existing WHS systems could be effectively applied to work-road safety to provide a framework for co-ordinated policy and cost-effective strategies to reduce the road toll.

Based on experience and a systematic literature analysis, gaps were identified in existing policy and practice.

Evidence-based recommendations were then developed to focus on reducing the road toll and related business costs. These include the implementation of strategic corporate road safety systems underpinned by existing WHS data, systems, strategies and policies.

Corporate road safety research, policy and practice in Australia

Over the past 15 years a small number of researchers, practitioners and policy makers have provided significant evidence around the significance of corporate road safety in Australia. This clearly supports the societal, business, legal and financial case for action. From a financial perspective, Davey and Banks [3] and others before them (including Murray et al. [4]), have shown that the hidden costs of at-work collisions for society, organisations and individuals, are real and significant. It is clear that some evidence of sound organisational practice already exists in Australia, although to date little has made its way into the peer reviewed literature. Recent good practice examples include the Australasian Fleet Managers Association (AfMA) Fleet Safety and other award winners (www.afma.net) such as Roche Australia [5] and Redland Shire Council [6].

Despite these isolated examples, corporate road safety in Australia remains fragmented between the State and Federal agencies involved in road safety, compulsory third party insurance, workers compensation and work health