TravelSmart to Work: Insights from voluntary travel planning with Perth workplaces

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Abstract

Travel planning can be supported to involve employers in managing trips generated by their workplaces. Through a travel plan, employers can use their influence to encourage greater use of alternatives such as public transport and cycling and reduce car commuting.

Between 2012 and 2016 the TravelSmart Workplace program engaged with 50 workplaces in Western Australia to develop travel plans. The travel planning process facilitated by the program is described. The application of workplace travel plans and their effects are illustrated through six case examples:

- A business that supported employees to change their commuting as part of a relocation
- A suburban local government authority that engaged its staff in active transport
- A small consultancy that devised an incentive scheme
- A district shopping centre that encouraged employees to use active transport
- A university that enhanced infrastructure and ran promotional activities
- A state government agency that engaged its staff and improved cycle facilities.

Reflecting on the experience of the TravelSmart program with this diversity of workplaces a number of challenges and opportunities for voluntary travel planning are discussed. These include seeking organisational support to implement and resource a change effort, the critical role of workplace champions and appropriate actions and the transport context of workplaces.

Potential and planned improvements in travel planning practice are outlined including: building awareness and the business case for employers, taking advantage of change moments, simplifying the travel planning process and promoting travel plans through the land use planning system.

1. Introduction

Traffic congestion is an increasing concern in Australian and New Zealand cities. It is estimated that, if unabated, congestion in Australia's capital cities would generate avoidable costs of up to \$37B by 2030 including additional travel time and vehicle operating costs and vehicle emissions (BITRE 2015). Commuting to and from work is a primary source of trips on urban road networks during peak periods and so is important for congestion management.

As trip generators, workplaces can influence this travel demand. Workplace travel plans have been used to engage employers in managing the trips they generate, primarily to reduce car commuting by their employees by enabling greater use of alternatives including public transport, cycling and walking. A travel plan is a package of actions implemented by an employer or site manager to encourage or discourage the use of target travel modes to access a site.

Travel plans or similar approaches have been used in many countries including the United Kingdom, Australia and New Zealand to address the impacts of car use. Travel plans have been required for new or expanded workplaces through the planning system. Mandating travel plans as part of development approvals is common in England and Scotland (Rye et al. 2011) and is an emerging practice in Australia (De Gruyter et al. 2014, Wynne 1015). Travel plans have also been encouraged as a voluntary undertaking.

There has been debate about the merits and effectiveness of mandating workplace travel plans versus encouraging voluntary uptake of travel plans by employers. The requirement for travel plans through the planning system in the United Kingdom has resulted in many developers and employers preparing travel plans (Rye et al. 2011). Reviews of such travel plans found that a reduction in car commuting resulted but that local authorities often lacked capability to enforce implementation and monitoring (Addison and Associates 2008, Rye et al. 2011). If an employer voluntarily develops a workplace travel plan they may have greater commitment to its implementation (Roby 2009). The incorporation of travel plan measures into business practice would be the optimal outcome. If travel demand management can become a valued part of workplace operations, then it is likely to be resourced and sustained.

In a number of Australian and New Zealand cities, public authorities have delivered programs to support workplaces in encouraging employee uptake of travel alternatives through travel plans. Past and present examples include the TravelWise program in Auckland and the TravelSmart workplace programs in Queensland, South Australia, Victoria and Western Australia. These programs offer assistance in various ways, for example by providing advice, a planning framework, tools for developing the plan and financial or in-kind support with implementation (see for example Meiklejohn and Wake 2007).

TravelSmart Workplace is one such program. The program aims to increase employee use of travel alternatives by making their workplaces more supportive of these behaviours. In doing so it seeks to reduce car use and its impacts and realise the benefits of greater use of the alternatives (i.e. walking, cycling, public transport, carpooling, teleworking). TravelSmart is delivered by the Department of Transport. Between mid-2012 and late 2016 the program was part funded by the Department of Health under the Healthy Workers Initiative to deliver support to workplaces to increase employee active travel.

This paper considers the engagement of workplaces in the program since 2012. The methods used are outlined in Section 2. A selection of case studies illustrates the varied experience with voluntary travel planning in Perth in Section 3. Implications for future activity in this field are discussed in Section 4.

2. Methods

2.1 Program approach

The TravelSmart Workplace program takes a capacity building approach, supporting change agents in workplaces to develop and implement practical actions to influence employee travel choices. These workplace champions may be one or a few people who volunteer or are allocated the role of coordinating the travel plan for their workplace. Champions may be a Staff Health and Wellbeing Coordinator, Sustainability Officer, someone who works on active transport or travel demand management (like a TravelSmart Officer, Active Transport Planner or similar in a local government or institution) or have an unrelated role but are interested in the initiative.

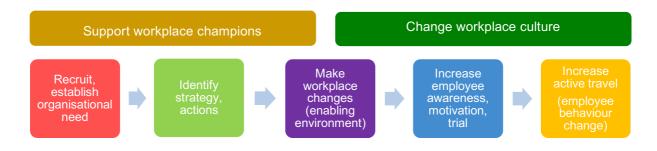
The program builds the knowledge and motivation of workplace champions and provides practical assistance with travel planning. TravelSmart leverages an employer's influence on employee travel choices to achieve travel behaviour change.

Ways in which employers can influence how employees travel to their workplace include:

- Communication about travel options, for example information in inductions for new employees or in workplace intranet and newsletters that positively frames travel alternatives
- Engagement of employees in considering, trialling and maintaining target behaviours and developing relevant skills, for example through a bike to work breakfast or cycle skills training
- Workplace practices including policies and procedures that affect how employees travel, such as flexibility in when and where they work and remuneration and reward options (e.g. employer provided cars or travel allowances)
- Workplace facilities such as the provision and management of fleet vehicles, car parking, end of trip facilities (e.g. bicycle parking, showers and lockers) and video or web conferencing services.

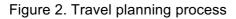
Through the efforts of champions these 'levers' can be used to make the workplace more enabling of travel alternatives and in turn encourage employee uptake. This logic is illustrated in Figure 1.

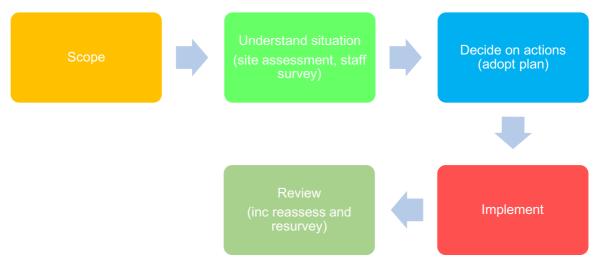
Figure 1. Program logic



2.2 Travel planning methods

TravelSmart assists workplace champions to develop and implement a travel plan for their site. Program staff work with champions through a series of steps to prepare a package of actions tailored to the workplace. These steps are illustrated in Figure 2 and described below.





Preceding work towards a plan is the recruitment of organisations through one of these pathways:

- Program staff approaching organisations considered prospective, such as employers with a staff wellbeing or sustainability program
- Organisations contacting the program seeking assistance, for example to address transport issues raised by a relocation
- Referral by third parties, such as local governments or Healthier Workplace WA (a support service for workplace health initiatives).

Discussions occur with interested organisations to explore their needs and explain the the program. Organisations are usually asked to complete an Expression of Interest form to confirm management support for participation. In the scoping step, an organisation's goals around employee travel are considered along with relevant background.

Understanding the workplace situation is important to inform preparation of the travel plan. A site assessment is undertaken. The workplace champion, assisted by a TravelSmart team member, addresses questions about the transport context including workplace car parking and fleet, cycle access and facilities, public transport and workplace policy and practice (e.g. teleworking and flexible working options). An employee travel survey is run, usually online to find out how employees commute to and from work, why they choose their commute modes, their interest in travel alternatives and where they live. The site assessment and employee survey data provide baseline measures and point to barriers to and opportunities for change. TravelSmart provides the survey tool and analyses survey and audit data.

Practical ways for the organisation to influence employee travel choices are then considered. This often involves a workshop with internal stakeholders to review the site assessment and survey findings and identify possible actions. Examples from other workplaces are useful in showing what could be done. These ideas are refined to prepare the travel plan. A travel plan template is available from TravelSmart, though organisations determine the format and content of their plan. Core elements recommended include a summary of the goals of the plan and the workplace context, a table setting out actions to be implemented and a process to monitor and review the plan. The TravelSmart team may review a draft plan prepared by the workplace champion or draft the plan for them. The champion usually seeks approval of the plan by their management. The organisation implements their travel plan, coordinated by the workplace champion. TravelSmart liaises with champions to encourage and track progress and offer assistance. This support includes:

- Advice, for example to assist with practicalities like how to set up and manage pool bicycles
- Referral to service providers such as Public Transport Authority's Education team or cycle training coaches
- Production of a workplace access guide with maps showing cycle and public transport routes around the workplace
- Provision of promotional material (e.g. brochures, posters for promoting travel options with employees)
- Undertaking employee surveys to gauge change in travel behaviour following implementation of (at least some) actions.

Workplace champions are informed and encouraged through a newsletter and forum each quarter. The forums provide for training and networking and have covered topics such as behaviour change strategies, examples of effective workplace action and government initiatives to improve cycling and public transport. The efforts of workplaces have been recognised through an awards scheme every two years. The TravelSmart Awards have acknowledged achievement and innovation by champions and their organisations at a stakeholder event that generates positive news stories and social media.

3. Results

3.1 Participating workplaces

Since mid-2012 the program has engaged with 50 employers or clusters of employers to foster workplace action for active employee commuting. Across these organisations there were 90 sites and about 20,000 employees covered by travel planning activity.

Almost half of the organisations (46%) were public sector employers, including state government agencies, local governments and public institutions including health services, training institutes and a university. A third (34%) of the participants was in the private sector, most of them businesses involved in provision of professional or business services, mining and retail trade. Other participants were in the non-profit sector (18%) or were in clusters with a mix of sectors represented (2%). In terms of numbers of employees at sites covered, most sites were in the medium (20-199 employees) or large (200 employees or more) range. Of the 90 sites, 24 were in the Perth Central Area, 64 were in Perth suburbs and two were in a regional centre (Geraldton).

Each organisation can be considered in terms of their journey through the program to assess, agree and implement actions and the impact on employee travel behaviour. The development of a travel plan is a key milestone. The majority (86%) of program participants prepared a travel plan in some form. The implementation of actions to influence employee travel choices, which is the intent of the venture, is another key indicator of an organisation's progress. Of the 43 organisations with a travel plan, most (35 or 70%) implemented at least some of the actions in it.

Further work is being undertaken to analyse the impact of the program including workplace action and employee travel behaviour change across the 50 organisations involved in the program.

3.2 Case studies

Six of the 50 participating organisations are considered here to illustrate practice issues in voluntary workplace travel plans. These have been selected to represent some of the diversity of workplaces and the enablers and barriers encountered in applying travel plans through the program. For each an outline of the workplace context is provided below along with a summary of actions implemented and resulting changes in employee commuting.

Case study 1. Relocating business

Context:

Capricorn employed about 130 employees in three workplaces in two suburban locations and decided to consolidate operations in an office within West Perth. Employee commuting was recognised as an important issue in managing the transition to the new office. At the former offices free car parking was available for all staff but at the new workplaces only a small proportion were to have parking. The business joined the TravelSmart Workplace program to access support to promote transport options to the workforce.

Actions:

A survey was run to find out how employees commuted to work and their intentions for commuting to the new location. Measures to promote travel alternatives to employees were identified through a workshop with 'change champions' for the relocation project, facilitated by TravelSmart. Actions to encourage employees to use travel alternatives were included in change management efforts for the relocation – constituting an informal travel plan. Actions implemented:

- Produced a workplace access guide showing public transport and cycle access to the new location
- Held public transport information sessions that most staff attended (delivered by the Public Transport Authority's education team)
- Ran an orientation activity where staff worked in teams to find public transport stops, shops and other amenities within walking distance of the new workplace
- Provided staff who would not have car parking at the new site with a public transport card (SmartRider) and credit for fares (up to \$600 over time after the move)
- Introduced charges for employee car parking at the new office (\$2,500 pa)
- Promoted end of trip facilities at the new workplace secure bicycle store and showers, change rooms and personal lockers.

Outcomes:

Employee surveys before and after the relocation found that commuting mode choice shifted from predominantly car (76% of commute trips were solo by car at the suburban sites) to public transport (61% after the move). Commuting by bicycle and on foot also increased. A shift in commute mode choice was to be expected given changes in car parking and improved public transport access, however the initiatives implemented by the business arguably amplified mode shift.

Most employees who relocated said they had used the support with travel options provided around the time of the move – 72 per cent used the SmartRider card provided and 38 per cent took part in a public transport information session. The business regarded their TravelSmart initiative as important in 'looking after' employees through the transition to the new workplace (personal communication Karen Watts, General Manager Organisational Development and Change, Capricorn Society Ltd). The change in parking supply and cost is likely to have been a significant influence on employee commuting. Previously free on-site or street parking was available to all, at the new office only 20 per cent have on-site parking and fees apply.

Case study 2. Suburban council

Context:

The City of Vincent is the local government authority for an inner suburban area north of central Perth and employs 419 staff across three sites. The City promotes sustainability in its community including active transport and to this end employs a TravelSmart Officer. The officer coordinates efforts to enhance active transport infrastructure, especially the City's investment in cycle routes, and engages with local residents, businesses, community groups and with City employees to support their use.

Actions:

A travel plan was developed for the City's workforce incorporating ideas from a workshop with staff representatives to discuss ways to encourage use of travel alternatives for commute and business trips. Actions implemented under the plan were:

- Provided pool bicycles including electric bicycles for employees to use for local business trips and to trial cycle commuting
- Engaged staff through an active commuter challenge staff are encouraged to walk, cycle or catch public transport to work on the first Friday of each month and can join in a social breakfast, staff earn points based on commute mode and distance, points are tallied quarterly and employees with the most points earn a gift voucher
- Promoted transport options through staff inductions and workplace communications, including coverage of the active commuter breakfasts
- Provided public transport cards (SmartRiders) to enable business trips by bus or train.

Outcomes:

The City's workplace activities have promoted alternatives to driving solo as a social norm. The active commuter challenge has involved about 12 per cent of the workforce so far. Employees have started or increased commuting by active modes and a number have purchased a bicycle or public transport card (personal communication Francois Sauzier, TravelSmart Officer, City of Vincent). Employee survey data shows increased staff awareness of the TravelSmart initiative and an increase in active commuting – from 12 per cent in 2012 to 18 per cent in 2015. This has been achieved at sites where staff have access to free car parking.

Case study 3. City consultancy

Context:

MBS Environmental is a consultancy with 25 employees located in West Perth. The business wanted to promote staff health and wellbeing and limit car parking on-site. MBS Environmental joined the TravelSmart program to assist in engaging staff in using active and sustainable options for their commute trips to meet these goals.

Actions:

A travel plan was developed with staff involvement, including the Managing Director. Measures implemented to support commuting by travel alternatives were:

- Improved end of trip facilities to provide additional secure parking for bicycles and tools for bicycle maintenance
- Funded personal journey insurance for all staff which covers costs incurred through accidents while travelling to or from the workplace
- Designed and applied a reward scheme (called the Frequent Alternative Traveller scheme) to incentivise staff commuting by travel alternatives; employees accrue points based on how they commute and can redeem these to purchase cycling or walking accessories or clothing, add value to their public transport card or contribute to a charity (where the business makes a matching contribution)
- Promoted travel options including public transport and cycle route information in the workplace.

Outcomes:

Three quarters of employees participate in the alternative commute rewards scheme which is ongoing. The scheme has reinforced the use of travel alternatives, especially cycle commuting, as the norm in the workplace (personal communication Freea Itzstein-Davey, Senior Environmental Scientist, MBS Environmental). The Frequent Alternative Traveller scheme has attracted attention from other employers who have sought information from MBS on how it works – making MBS an advocate for TravelSmart in the business community. Active commuting by employees increased from about a third (34%) in 2013 to 62 per cent in 2014.

Case study 4: District shopping centre

Context:

Ocean Keys is a district shopping centre in the outer suburb of Clarkson north of Perth. The centre has about 120 retailers with an estimated 1,000 employees. It is well connected to surrounding suburbs by bus services that link with the Joondalup train line (Clarkson train station). Shopping centre management was engaged in the program as part of a broader active transport and physical activity project in the local community (Your Move Wanneroo).

Actions:

Employees working for retail stores and centre management were surveyed about their commute including usual travel mode and interest in using travel alternatives. Options for promoting active transport to employees and customers were discussed with centre management and a travel plan was prepared. Centre management and TravelSmart have worked together to implement these actions so far:

- Provided information on cycle and public transport routes and facilities around the centre through an access guide distributed to retail store managers
- Held a breakfast event with representatives of retail stores and centre management to promote the travel plan initiative
- Ran an active commuter competition for employees to encourage walking, cycling and public transport trips to the centre, based on social media
- Promoted a walking group for employees and customers.

Outcomes:

The employee survey (before the intervention) showed that four fifths (81%) of commutes to the centre were by car with few staff using active modes. Actions are still being implemented and a follow up survey is yet to be undertaken. Employee and retailer participation has been low to date. The availability of car parking and norm of car commuting poses a barrier to mode shift. Another challenge has been how to engage with employees. Communication with employees is mediated by store managers who are the points of contact for centre management, so their support is needed to promote active commuting initiatives.

Case study 5. University

Context:

Edith Cowan University is a public university with about 1,690 employees. The travel plan focused on the university's campuses at Joondalup and Mount Lawley in metropolitan Perth. The university developed a travel plan to help manage campus access by a growing student and staff population. At both campuses there are few options for further at-grade car parking. ECU has committed to reducing its environmental footprint, including greenhouse gas emissions from staff and student travel.

Actions:

A travel plan was developed with internal stakeholders building on earlier work to promote transport alternatives. The plan was positioned as part of the access and parking

management effort overseen by the Facilities Management section. Actions implemented under the plan:

- Continued to part fund a free shuttle bus service (Joondalup CAT bus) that links the Joondalup campus with the Joondalup train station and the Joondalup city centre
- Integrated staff and student access cards with a public transport card, to provide a single card for users to pay for bus and train fares and interact with campus services and facilities
- Improved facilities for cycle commuters including installation of shower and change rooms as part of new campus buildings and providing additional bicycle parking
- Promoted transport options to staff through inductions for new employees, workplace communications and through Security and Parking staff dialogue with car park users (i.e. promoting public transport when staff or students complain about limited campus parking).

Outcomes:

The provision and promotion of active transport options has become embedded practice at Edith Cowan University. The Facilities Management section has included cycling and public transport in campus development and communication with students and staff. A comparison of survey results from 2012 and 2014 shows a decrease in student car trips but an increase in staff car trips for both campuses (Cardno, 2014). The promotion of travel alternatives has largely focused on students as they are the primary target and turn over regularly (personal communication Hamish Cotton, Manager Security and Traffic Services, Edith Cowan University). Also, staff car parking fees are modest and parking permits for a semester or year can be paid through payroll deduction. Changes in parking management may be needed to reduce employee car use.

Case study 6. State government agency

Context:

The Housing Authority has about 880 employees at its offices in East Perth. The Authority wanted to promote employee use of travel alternatives in support of its environmental sustainability goals. A travel plan was developed for the workplaces in 2006 and revised from 2012 with assistance from the TravelSmart program. The Authority's Sustainability Project Officer has led the promotion of active and sustainable travel.

Actions:

The Authority has improved workplace facilities and run promotional activities over several years at its East Perth offices. Over the past four years, these actions implemented as part of its TravelSmart initiative:

- Enhanced end of trip facilities for cycle commuters including refitting shower and change rooms and adding more bicycle racks in a secure bike storage area
- Engaged employees in walking and cycling for work-related trips through regular workplace events and challenges including bike to work breakfasts, group walks and step challenges as part of Bike Week and Walk Over October
- Upskilled staff through cycle training including bicycle maintenance workshops
- Trialled an online carpooling scheme to connect employees interested in carpooling to and from work
- Promoted workplace activities and transport information in internal communications including a TravelSmart intranet page.

Outcomes:

The Housing Authority has sustained action to encourage employee uptake of travel alternatives over several years. By collaborating with the health and wellbeing coordinator and innovation working group, the Sustainability Project Officer was able to organise workplace activities and improve cycle facilities within limited resources. Employee commuting by public transport, cycling and walking has increased and car commuting has declined – from 41 per cent in 2005 to 32 per cent in 2016.

Synthesis

The case studies provide a snapshot of the experiences of organisations that participated in the TravelSmart Workplace program. A summary is provided in Table 1 including travel plan actions and travel behaviour change. These examples point to insights for voluntary travel planning, which are discussed in the next section.

Case study workplace	Travel plan actions implemented	Employee travel behaviour change	Explaining changes
Business relocating employees from suburban sites to central city, 130 employees	 Incentive to commute by public transport Managing limited workplace parking including fees Information on travel options Staff engagement 	Solo car commuting reduced from 76% before to 22% after relocation Increased public transport, cycling and walking (61% of commute trips to the new office are by bus or train)	Transport addressed as part of staff transition to new workplace Staff took up support offered, including public transport card Change in parking availability and cost and public transport incentive likely to have amplified mode shift from relocation
Suburban local government authority, 419 employees	 Pool bicycles provided Staff engagement through monthly active commuter breakfasts and quarterly incentives 	Increased active commuting from 11% 2012 to 18% 2015 Decreased solo car commuting	Active transport promoted through workplace activities Championed by TravelSmart Officer Cycling and public transport enabled through workplace facilities Free car parking a counteractive factor
Business, central Perth, 25 employees	 Developed and ran reward scheme to encourage active commuting Journey insurance cover Improved end of trip facilities 	Increase in active commuting 34 to 62%, decrease in car commuting 49 to 36% 76% of employees took part in the reward scheme	Innovative scheme to engage staff and incentivise active commuting Supportive measures including facilities, insurance Management support Challenge is sustaining motivation over time
District shopping centre in outer suburban area, approx. 1,000 employees across 120 stores	 Access guide to promote active travel options Launch event for store representatives Held active commuter challenge 	No post intervention survey, baseline survey showed 81% commutes solo by car Limited employee participation so no significant change expected at this stage	Free car parking available to employees Centre management has limited interaction with employees; communication is mediated by store managers

Table 1. Summary of case studies

Case study workplace	Travel plan actions	Employee travel	Explaining changes
	implemented	behaviour change	
University, two suburban campuses, 1,690 staff	 Part funded shuttle bus service Improved cycle facilities Transport information in staff inductions Integrated staff access card with public transport card Parking staff promote travel alternatives 	Small increase in staff car commuting whereas student car use declined	Engagement activities primarily target students rather than staff Staff car parking cost is low Organisational support for active transport but yet to reform parking fees
State government agency in central Perth, 880 employees	 Staff engagement through walks, bike to work breakfasts, cycle skills workshops Improvements to end of trip facilities Staff carpooling scheme 	Reduction in solo car commuting 41% 2005, 32% 2016 Increase in active commuting 43% to 54%	Ongoing staff engagement Improved cycle facilities Championed by Sustainability Officer Limited on-site car parking Public transport improvements between surveys

4. Discussion

Reflecting on the experience of the program with the case study workplaces and other participants, a number of challenges and opportunities for voluntary travel planning stand out. These include organisational support to implement and resource a change effort, the role of workplace champions in engaging employees and coordinating implementation, the type of actions implemented and the transport context of workplaces. These are considered in turn below and then innovations in travel planning are discussed.

4.1 Insights from local practice

A workplace travel plan is a change effort in an organisation, seeking to alter policy, practice and facilities and inform and engage employees to influence behaviour. Organisational support is necessary to bring about these changes. Inadequate organisational support is an issue commonly raised by workplace champions involved in the program, manifest in limited budget or staff time and management interest (UrbanTrans 2014). The level of organisational support may be related to factors including the perceived business benefits of change and organisational culture, such as concern for employee welfare or social and environmental impacts (Roby 2009). If employers do not regard employee commuting as an issue or part of their responsibility, they are unlikely to commit to a workplace effort to change it (Rye 2002).

For most of the case studies, organisation support was demonstrable. For example, at Capricorn, assisting employees to consider travel alternatives was an integral part of an organisational change – bringing work groups together at a new location. At MBS Environmental the then Managing Director played a key role in developing the travel plan and instigated a scheme to reward active commuting. He also modelled the target behaviour by regularly commuting by bicycle. TravelSmart efforts at Edith Cowan University have

become part of the work of the Facilities Management section as well as contributing to corporate environmental goals. An exception was the shopping centre where the plan was driven from outside and is yet to become integrated into management strategy.

Changes in business conditions can impact organisational support. Several program participants (outside of the case studies) reduced or discontinued their travel behaviour change efforts because of the recent economic downturn or organisational restructures. When resources become scarce, the durability of a travel plan depends on how it is positioned. For many employers a travel plan may be 'nice to have' whereas for others it has a functional role such as addressing site parking problems. Sustaining or extending travel plans probably requires that employers see them delivering strategic business benefit, like employee recruitment and retention (Roby 2009). The progression of travel plans to become business management tools with broader value for an organisation could embed travel demand management practices as good business practice (Roby 2009, Rye 2002).

The workplace champion is a significant factor in travel plan outcomes. In most of the case studies, having someone with a personal interest and ability to work across their organisations to build support has been crucial to bringing about positive change – the City of Vincent and Housing Authority are examples of this. The workplace champion provides a focus for the initiative and enables coordination of travel plan implementation. Program participants that did not progress to a plan or to implementation usually lacked an effective champion or the champion left the organisation or was unable to continue (e.g. due to new position or workload). Local experience is that a travel plan champion is both a requirement for success but also a point of vulnerability (UrbanTrans 2014). A network of people to support travel plan activities and a succession plan for when champions move on could help.

The effectiveness of a travel plan logically depends on the actions implemented in the workplace. There are many interventions that an organisation could use to influence employee travel. The literature on travel plans points to the varying effects of different types of actions, with financial incentives to use travel alternatives and disincentives to drive (such as limiting car park access or increasing parking cost) associated with greater mode shift (Cairns et al. 2002). The local case studies indicating a significant reduction in car commuting and uptake of alternatives involved a mix of good staff engagement and financial incentives or disincentives. At Capricorn for example mode shift could be attributed to a large degree to public transport card with credit and change to fewer and more costly workplace car parking. The City of Vincent's staff challenge used social activity and incentives to increase active commuting.

The TravelSmart program assists organisations with selection of actions when developing travel plans, encouraging a package of measures appropriate to the business and location and likely to be effective given past practice and employee interest. The actions included in the plan and put into effect depend on organisational support. Organisations can be conceptualised as progressing from contemplating action to manage travel to their workplaces, to implementing basic actions with low cost and risk and on to implementing actions that may cost more but greater potential to achieve behavioural change (Rye 2002). Programs supporting voluntary travel planning could offer guidance and incentives to aid this journey for organisations.

The selection of workplace actions should respond to the transport context. If travel alternatives are available, then their use can be encouraged. If there are barriers to uptake of travel alternative, then a travel plan can address those factors that the employer controls or influences. Car parking is a significant factor here – local and international examples show the effect that parking management can have on employee commuting (see for instance Cairns et al. 2002). The sustained high level of staff car commuting at Edith Cowan University may be due to lack of incentive to change given staff parking entitlements and low

parking costs. Conversely, the reduced supply and increased cost of parking for Capricorn employees was followed by reduced car commuting. Parking is often a contentious issue for workplaces but it is also a business asset that organisations could manage strategically.

The relocation of employees provides a reason for employers to consider transport issues. A workplace move is likely to generate employee concern about how they will travel to the new site and so transport should be part of the change management process (and decision-making about where to relocate to). A relocation provides an opportunity to influence organisational behaviour (i.e. workplace practices and facilities) and employee behaviour. A move can shift commuting from habit to the subject of deliberation – providing a window where behaviour change interventions could be most effective (Walker et al. 2015). The TravelSmart program has worked with several organisations to implement a travel plan at the time of relocation; most recorded a large change in staff car commuting – as illustrated by the Capricorn case study above. Working with employers ahead of a relocation could be a good prospect for addressing travel demand.

4.2 Innovating travel planning

The TravelSmart Workplace program shows that travel plans can reduce car commuting and increase use of active transport where organisational support and workplace champions allow implementation of an appropriate set of actions. To date the travel planning effort in Perth has been at a small scale. Moderating traffic impacts in urban activity centres will require innovation to expand employer participation and enhance the effectiveness of workplace action. Workplace travel planning practice can evolve to minimise barriers and promote enablers to extend the scale of activity.

Opportunities for improvement include:

- Building awareness of workplace travel plans and the business case for them. Workplaces that have used travel plans to achieve good business and community outcomes can be promoted. They offer 'proof of concept' to encourage others to consider the potential for their organisation. Analysis of the business benefits (e.g. employee wellbeing, reputation, parking efficiencies) arising from travel plans would help in building the case for organisations to initiate and invest in them.
- Networking workplace champions. Connecting people championing travel plans in their workplaces can enable sharing of experience and inspiration and so support their efforts. Online platforms and local networking forums could be ways to do this.
- Taking advantage of change moments. Discontinuities such as workplace relocations can be used to encourage people to consider their options and try travel alternatives. Travel plans can be a useful means of addressing employee concerns and supporting positive change in how they commute.
- Simplifying the travel planning process. For some the task of developing and implementing a travel plan is challenging. Making the process straightforward and providing guidance and tools should help. For many workplaces the focus could be on achievable activities that over time build up to a travel plan. In this way workplaces could move from interest to action rapidly and develop internal support for more systemic changes.
- Promoting workplace travel plans through the land use planning system. Travel plans could be required as a condition of development approval to manage the transport impacts of a project. Building the capacity of local authority planners and planning consultants will be important to apply travel plan requirements effectively.
- Monitoring and evaluating workplace travel plans and sharing the results. As a relatively
 novel venture there is scope to learn more about travel plans including ways to engage
 employers, where travel plans can work and what types of actions are effective. Further
 research into travel planning and exchange between practitioners would build our body
 of knowledge.

Many of these opportunities are being pursued in Perth through the Department of Transport's travel demand management work. Local travel behaviour change efforts are being focused on traffic congestion in central Perth and surrounding suburbs, with employers and their employees a primary target. The Your Move Central project will integrate elements of travel planning with employers (building on the TravelSmart Workplace program) and journey planning or coaching with employees to address car commuting in peak periods. Individual coaching and localised transport information has been used in household based projects in Perth communities to enable people to consider and change some of their trips to active modes. By combining changes to make the workplace setting more supportive of travel alternatives with personal encouragement and information the project has potential to shift the mode or timing of commute trips amongst city workers.

The Your Move project will also provide online support for workplaces to promote active transport. A digital service platform is being developed and will allow workplace champions to choose activities, access information and tools to assist them, share what they are doing and earn rewards based on actions completed. This online platform should make travel planning a simpler exercise (e.g. running online employee surveys, selecting activities based on workplace capacity and interest) and will offer incentives to motivate workplace action. It will allow peer to peer exchange of knowledge (through blogs), in addition to the in-person forums that TravelSmart has run to encourage networking and learning.

The uptake of workplace travel plans will also be supported through the land use planning system. To date, travel plans have been required as a condition of development approval for a few large projects such as new or expanded health campuses. Under the State Government's Perth Transport Plan (Department of Transport et al. 2016) this approach will be extended to more major developments including consistent policies and processes to support the wider application of mandated travel plans.

5. Conclusion

Workplace travel plans have been used to varying degrees in several Australian and New Zealand cities, and elsewhere, as part of travel demand management efforts. Voluntary travel plans can play a useful role in engaging employers in this effect by enabling practical changes at the workplace scale that encourage employee use of alternatives like public transport and cycling. The experience with voluntary travel planning through the TravelSmart Workplace program in Perth points to the potential for innovative and effective workplace action. Local practice also highlights the need to build organisational support for appropriate measures and resources for their implementation over time. The efforts to involve workplaces in promoting active and sustainable transport in Perth will evolve with a new travel behaviour change project underway targeting congestion as well as a proposal to require travel plans for major developments.

References

Addison & Associates, 2008. *Delivering travel plans through the planning process -Research report*, Department for Transport and Communities and Local Government, London, UK.

Bureau of Infrastructure, Transport and Regional Economics, 2015. *Traffic and congestion cost trends for Australian capital cities. Information sheet 74.* BITRE, Canberra.

Cairns, S., S, Davies, A, Newson, C, and Swiderska, C., 2002. *Making Travel Plans Work: Research Report* Department for Transport, London, UK.

Cardno, 2014. Edith Cowan University 2014 Travel Survey. Cardno, Perth.

De Gruyter, C., Rose, G., and Currie, G., 2014. Securing travel plans through the planning approvals process: A case study of practice from Victoria, Australia. *Cities* 41 pp. 114-122.

Department of Transport, Main Roads WA and Public Transport Authority, 2016. *Perth Transport Plan for 3.5 million people and beyond – for consultation*. Department of Transport, Perth.

Meiklejohn, D., and Wake, D., 2007. A Tale of Two Cities: Workplace Travel Plan Programs in Melbourne and Perth. Papers of the Australasian Transport Research Forum, Melbourne.

Roby, H., 2009. Workplace travel plans: past, present and future. *Journal of Transport Geography* 18 pp. 23-20.

Rye, T., 2002. Travel plans: do they work? *Transport Policy* 9 pp. 287-298.

Rye, T., Green, C., Young, E., and Ison, S., 2011. Using the land-use planning process to secure travel plans: an assessment of progress in England to date. *Journal of Transport Geography* 19(2) pp. 189-376.

UrbanTrans, 2014. Evaluation Interviews for TravelSmart Workplace Program. Unpublished report for the Department of Transport.

Walker, I., Thomas, G.O., and Verplanken, B., 2015. Old habits die hard – travel habit formation and decay during an office relocation. *Environment and Behavior*, 47 (10) pp. 1089-1106.

Wynne, L. 2015 Can we integrate land-use and transport planning? An investigation into the use of travel planning in regulation. Paper to 21st International Conference on Urban Transport and the Environment; Spain.