

Transit to Work: Workplace travel plans and transit oriented development

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Abstract

Relatively few people commute to work by public transport, though many more could do so. Transit oriented development can bring workplaces closer to frequent public transport and so reduce the need for car commuting. However, changes in the built environment alone may not change commuting choices significantly. Workplace travel plans could be used to leverage a greater shift from solo car trips to alternatives like public transport. In Perth, the TravelSmart Workplace program is supporting workplace action to encourage travel behaviour change through travel plans (known locally as green transport plans).

The potential for workplace travel plans to influence mode choice for commute trips is discussed. Travel plans could 'add value' to transit oriented development by informing travel choices of people working in or close to public transport stations. It is argued that this behavioural element should be an important complement to infrastructure and urban design measures to create transit supportive activity centres.

Introduction

Perth has a high level of car use, in common with many cities in Australia and North America. Four in five passenger trips by Perth residents involve the car and car kilometres travelled per person per annum are high by international comparison (Newman and Kenworthy 1999, Socialdata 2000). This high level of car use is a source of air pollution, fossil fuel consumption, physical inactivity and pressure on transport infrastructure.

Commuting in Perth is dominated by the car. Some 82 per cent of people travel between work and home by car according to the 2001 Census (ABS 2002). Few commute by public transport (nine per cent), bicycle (one per cent) or on foot (two per cent) (ABS 2002).

Many car commute trips by Perth residents could be made by alternative modes. Of all car trips (for commuting, shopping, leisure and other purposes), about half could be switched to public transport, cycling or walking according to a study of the mode

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choices and travel options of 820 Perth residents (Socialdata 2000). For many car trips travel alternatives are available but lack of knowledge or negative perceptions of them or preference for driving works against their use (Socialdata 2000). By addressing these knowledge or attitudinal barriers, as much as 21 per cent of commute trips could be made by public transport (Socialdata 2001).

How people travel to work is important as motor vehicle emissions, especially in the morning peak, contribute to photochemical smog formation in Perth's airshed (DEP 2002). In addition, the high level of car commuting is a major source of peak traffic congestion in the city. Enabling more commute trips by modes other than driving solo would help reduce emissions and congestion.

Transit oriented development and workplace travel plans are two initiatives to promote more balanced and sustainable transport in Perth. This paper looks at the potential interaction of transit oriented development (TOD) and workplace travel plans in managing travel demand. The concept of workplace travel plans is introduced and their use in Perth is outlined. The possible use of travel plans to enhance the impact of TOD in achieving a shift of trips away from the car is discussed.

Workplace travel plans

How people travel to work is influenced by many factors. Where they live, family responsibilities, quality of public transport, distance from the workplace, knowledge of travel options and personal preferences might all play a part in shaping commuting choices. Travel choices are also influenced by the employer through workplace facilities, work practices, remuneration, parking and fleet management policies and organisational culture (Whitelegg 2001). Collectively, workplaces are significant generators of travel and so transport impacts. Employers can address their transport impacts by proactively managing staff travel; workplace travel plans are a means to do this.

Workplace travel plans, also called green transport plans, are action plans to reduce car trips to a workplace. The plan is generally developed and implemented by a workplace to influence how employees commute to work. In response to the effects of car commuting since the 1980s, governments in the United Kingdom, the Netherlands and the United States have encouraged or required employers to institute workplace travel plans (Rye 2002). Workplace travel plans have been used in Australia since the late 1990s (Wake 1999). The motivation for employers using such plans can include reduced business costs (e.g. reduced parking or fleet costs), improved employee health and productivity, better environmental performance and compliance with planning approvals.

Workplace travel plans provide a framework for managing travel demand through workplaces. A plan is usually specific to a workplace or a number of workplaces under a common employer, and is designed to meet local conditions and business needs. It works by changing some of the parameters around commuting choices to influence travel behaviour, for example by providing information, offering incentives or disincentives and improving facilities so as to favour alternatives to driving solo to work

(Rye 1999). Examples of actions that may be implemented under such plans are listed in Table 1. The choice of action and its implementation is usually up to the employer.

The scope of workplace travel plans also depends on the organisation. The plans usually focus on employee commuting, but could include actions to address business trips by employees and even trips to the workplace by clients.

Table 1. Examples of workplace travel plan actions

Strategy	Actions
Improve travel alternatives	<ul style="list-style-type: none"> • Provide secure bicycle parking, shower and change facilities at the workplace • Offer free or discount parking bays for car poolers • Negotiate more frequent or direct bus services near the workplace • Offer discounted public transport fares
Promote travel alternatives	<ul style="list-style-type: none"> • Include information on travel options in staff inductions • Provide an access map and public transport timetables on the intranet • Hold a free breakfast for staff using alternative modes to get to work • Organise an inter-office competition to reduce car trips
Discourage car commuting	<ul style="list-style-type: none"> • Limit or phase out free car parking for staff • Offer alternatives to employer provided cars in remuneration packages • Reduce home garaging of pool vehicles

A travel plan should be an ongoing process. Ideally the plan will be evaluated and adapted to manage travel demand in response to changes in the workforce, the transport system (e.g. public transport services) and business activity.

Travel plans in Perth

Workplace-based TDM in Perth arose from concern over air pollution. Controlling motor vehicle kilometres travelled is important to limit emissions of pollutants that cause photochemical smog (Western Power and DEP 1996). The TravelSmart Workplace program was initiated in 1997 to reduce emissions by encouraging commuters to use alternatives to driving solo to work. A number of interventions were trialed in Perth workplaces to influence commuting behaviour, finding that workplace travel plans have the greatest potential for achieving sustained reductions in solo car commuting (Baudains 2003).

Workplace travel plans are central to the TravelSmart Workplace program. The program, jointly delivered by the Department of Environment and Department for Planning and Infrastructure, assists public and private sector organisations to reduce

car commuting through workplace travel plans. Support is provided to prepare travel plans and put them into action; the key steps involved are listed in Table 2.

A growing number of workplaces in Perth are promoting sustainable commuting through workplace travel plans. To date, the TravelSmart Workplace program has assisted the preparation of travel plans for 22 workplaces with a total of 9,400 employees. These include four businesses, two local councils, two hospitals and offices of five government departments. Several more organisations are progressing towards a plan for their workplaces. Most workplaces with a travel plan are in the Perth Central Area or the inner suburbs.

Most workplaces with travel plans have reduced car commuting by their employees. A recent comparison of travel survey results before and after implementation of a travel plan showed that 11 out of the 15 workplaces studied recorded a smaller proportion of trips as car driver and greater use of alternatives, usually public transport (Wake 2004). Other positive effects of travel plans include investment in improved workplace facilities for cyclists, greater awareness of travel alternatives and transport impacts amongst employees, limitations on car parking provision and home garaging of fleet vehicles and advocacy for system improvements e.g. more frequent bus services (Baudains 2003, Wake 2004).

Table 2. Workplace travel plan process.

Step	Description	How TravelSmart Workplace helps
Secure management support	Organisation decides to develop a workplace travel plan	Recruits organisations to join the program Provides information on travel plans and their value to employers
Form workplace team	Form a team or use an existing committee to oversee work on the plan Involve interested employees and representatives of relevant sections e.g. building management	Facilitates initial meetings to provide background information and scope process
Undertake access audit and staff travel survey	Obtain baseline data on how staff travel through a travel survey Audit workplace accessibility i.e. cycle facilities, public transport nearby, car parking and workplace practices	Provides online travel survey tool and access audit questionnaire Assists with data analysis and interpretation
Identify target and actions	Set target to reduce car use Identify potential actions to reduce car commuting and improve and encourage use of alternatives Use audit and survey findings and hold staff workshop	Provides technical advice on potential actions
Draft plan	Prepare draft plan including background information, details of recommended actions and framework for implementation	Provides advice on draft plans Provides examples of what other organisations have done
Seek management approval	Plan put to management for approval Should include allocation of responsibility and budget	Brief management if requested
Implement actions	Progressively implement actions Continue workplace team to oversee and assist implementation	Provides technical advice to help plan actions in detail or solve problems Offers information materials, encourages involvement in promotional activities and runs staff awareness campaign Offers networking and training activities to help sustain workplace efforts
Evaluate and review	Repeat access audit and travel survey to assess progress against baseline measures Review the plan to learn from experience, identify additional actions and renew organisational commitment	Offers audit and survey tools and assistance with data analysis Assists with evaluation and review process

The following case studies illustrate the effects of travel plans in Perth workplaces:

Case study 1: Water Corporation

The Water Corporation, a government entity providing water services across WA, adopted Perth's first travel plan in 1999. The plan covers the corporation's head office in Leederville, about two km from central Perth, where 700 staff work. The plan was developed by a group of Water Corporation employees committed to better environmental practices and the Conservation Council's Smogbusters program which wanted to trial a workplace travel plan (Wake 1999). Through the plan the corporation aimed to reduce car parking demand and environmental impacts of employee car commuting (Water Corporation 1999).

Actions implemented include an annual green commuter breakfast (free breakfast for staff commuting by green modes), publication of a workplace access guide, promotion of public transport (the Leederville train station is close by), installation of a bike parking enclosure and provision of parking bays for car poolers.

Car commuting was reduced from 64 per cent in late 1998 to 49 per cent in early 2000 according to staff travel surveys. A more recent survey found that 54 per cent of commutes were made as car driver - still lower than the starting point.

Case study 2: Woodside Energy

Woodside Energy, an oil and gas company, accepted an invitation to participate in the TravelSmart Workplace program. Interested employees formed a Green Transport Group to prepare a workplace travel plan for 600 staff in the Central Park office in the heart of Perth. The plan was completed in 2001.

The green transport effort soon extended to all of Woodside's Perth workplaces. Actions implemented include an annual green transport week promotion, inclusion of information on alternatives to driving to work on the company intranet, lunchtime talks on cycling and public transport and formation of a bicycle users group. In addition, the Green Transport Group took the planned relocation of staff to a new city office in 2004 as an opportunity to seek good bicycle parking and change facilities. As a result, Woodside Plaza has more bicycle parking places than car bays.

A survey of Woodside staff at Central Park in 2000 found that 26 per cent of commutes were made solo by car. A survey at the company's Adelaide Terrace office the same year found that 49 per cent of staff drove in. An October 2004 survey, held after the relocation to Woodside Plaza, found that only nine per cent of commutes were made as car driver.

Case study 3: Department of Agriculture

The Department of Agriculture's head office is in South Perth, where 600 employees work. The Department has committed to continually improve its environmental

performance through a Greening the Department initiative. It participated in the TravelSmart Workplace program, producing a Green Transport Plan in 2004.

Almost three-quarters (73%) of staff commute trips were made as car driver in November 2003. A follow up survey a year later found a six per cent reduction (to 67%). Green transport actions implemented in this period include the TravelSmart awareness campaign promoting travel alternatives to staff, lunchtime talks on cycling and walking and a green commuter breakfast.

The Department has an active team of employees helping put their plan into action. Bus services near the workplace are infrequent but improvements are being discussed with the Public Transport Authority. Other actions will include installing better facilities for cyclists at the workplace.

Experience with workplace travel plans in Perth suggests that they can have a positive impact including change in travel behaviour and leveraging employer action and investment in sustainable travel. The performance of travel plans needs further study but organisational support and the nature of actions implemented seem to be important determinants of success (Wake 2004).

Linking travel plans and transit oriented development

Better integrating land use and transport can help reduce car dependence. TOD can provide this integration by designing land uses around transit stations to maximise opportunities to use public transport and walk and cycle. City planning strategies are embracing TOD, including Network City, the new planning framework for metropolitan Perth (WA Planning Commission 2004). TOD has great potential to create more liveable and sustainable urban communities, but realising this demands that we go beyond physical planning measures (Dittmar and Poiticha 2004).

Data from workplace travel surveys in central Perth shows that density and transit accessibility does not necessarily mean low levels of car use. For example, at one workplace on St. George's Terrace 48 per cent of commute trips were made as car driver whereas another workplace just a few hundred metres away had only nine per cent of trips as car driver. The former provided many employees with a car and parking bay whereas the latter did not and had a workplace travel program. Such a contrast is worthy of further study but suggests that workplace factors influence commuting behaviour over and above the physical parameters of location and accessibility. If this is so, workplace-based travel demand management could build on transit access and land use density and mix to minimise car use and optimise the use of alternative modes.

Workplace travel plans can be a powerful tool to engage employers in managing travel demand. In some jurisdictions, authorities have made workplace travel plans mandatory to address transport impacts generated by new or expanded activities such as large office or commercial developments, hospitals or education institutions. In the UK, local authorities can require travel plans as a condition of development approval and central government has actively supported workplace travel planning through

resource material, best practice research, grants to local authorities and site-specific advice to employers (Rye 2002). A recent review found that workplace travel plans and other behavioural travel demand management measures, where integrated with transport system improvements and parking restraint, could achieve a significant reduction in peak urban traffic levels (Cairns et al 2004).

Workplace travel plans can be a useful compliment to TOD initiatives in Australian cities. The use of travel plans is relatively new in Australia and is generally a voluntary undertaking by employers, though at least one local authority is to require them for major developments (Rice 2004, Wake 1999). Encouraging or requiring employers in TOD precincts to implement travel plans could help align their transport practices with the goal of a less car dependent place. The benefits to TOD of doing so could include minimising car traffic and parking demand in the precinct and encouraging supportive workplace facilities and practices, e.g. workplace bicycle facilities.

The application of workplace travel plans in TOD projects warrants further consideration. Options could include:

- Making support for workplace travel plans part of packages to attract major employers to TODs. Support in the form of facilitation, technical advice and promotional materials can help create a workplace travel program that reduces vehicle fleet and parking costs and enhances employee wellbeing and corporate standing.
- Working collectively with employers to facilitate travel planning. Travel management associations have been used elsewhere to support employer action to reduce transport costs. This could also help build business-to-business links in TODs.
- Requiring travel plans for major developments within TODs through planning schemes. This can ensure that facilities and practices in workplaces are compatible with TOD objectives. This can be seen as an extension of transport impact assessment into minimising and managing impacts, though issues of travel plan quality and monitoring would need attention.

Whatever approach is used, programs like TravelSmart Workplace are important in providing assistance for the development and implementation of workplace travel plans.

Conclusion

TOD holds promise as a way to create more sustainable communities with greater travel choices and lower transport impacts. Physical planning measures regarding zoning, density and street layout should be integrated with 'soft measures' like travel behaviour programs to maximise the benefits of TOD.

Workplace travel plans could add value to TOD initiatives by engaging employers in reducing car use and promoting public transport, cycling and walking. Employers can be key players in TODs as their actions affect parking demand, car traffic and workplace facilities. Workplace travel plans could be encouraged or required to help align travel management by employers with TOD objectives. Programs such as

TravelSmart Workplace are important in supporting development and implementation of workplace travel plans. Ways of using travel plans as part of TOD deserves further consideration.

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