

Want a Change? Just Walk!

Werner Brög, Helen Grey-Smith, Sibylle Funke

Abstract

The need to change the mode share for travel – less motorised private mode trips (MPM) and more trips with environmentally-friendly modes like walking – is clearly enunciated in a set of targets in the Metropolitan Transport Strategy (MTS) of the Perth Metropolitan Region.

A survey in 1997 showed that around just an eighth of all trips in South Perth were covered on foot. In contrast the share of trips with motorised private modes was almost seven times higher.

Another in-depth survey revealed that around one third of all motorised private mode trips are less than three kilometres in length. Trips of these distances are potential walking trips – provided that there are no constraints (e.g. heavy parcels or trip chaining). The survey identified that a share of all MPM trips are in principle replaceable by walking. Out of these potential walking trips around one third are personal choice travel decisions. For these trips people just do not have walking as an alternative to the car in their minds. Therefore an increase in awareness is all that is required for this alternative.

But how can a change in mode choice for these trips – away from MPM towards walking – be achieved? An Individualised Marketing campaign (IndiMark) which was conducted as a pilot project in South Perth in 1997, proved to be an effective tool to foster the use of environmentally-friendly modes, e.g. walking. The after study revealed that the use of all environmentally-friendly modes increased – the share of walking increased considerably and was sustained one year later.

But why promote walking? Because walking is the easiest way to change modes. It's neither necessary to own a bicycle nor to gain knowledge on how to use public transport. The only thing to do is to leave the car keys at home and use the feet. Additionally walking increases personal fitness and is the most environmentally-friendly mode. Therefore: just walk!

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Werner Brög studied sociology, socialpsychology and communication sciences at the University of Munich. He founded the Institute *Socialdata* in Munich (1972) and *Socialdata Australia* and has been its managing and scientific director since then.

The main emphasis of his work is on research in methodology (e.g. methods to collect valid data on mobility behaviour), application of policy-oriented decision-making models (policy sensitive models) and development and application of strategies influencing behaviour (awareness strategies).

He also developed a concept for Individualised Marketing for the promotion of public transport. Meanwhile Individualised Marketing campaigns were successfully conducted by *Socialdata* in several European cities. A further development of IndiMark campaigns is IndiMark for all environmentally-friendly modes (walking, cycling and public transport) as already applied in the South Perth pilot project and in the larger scale campaign.

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Introduction

Walking – an activity for recreation? A means to cover distance for people who don't have another transport opportunity? A necessity for people who own a dog? Or simply a mode of transport?

Many people do not consider walking as a mode of transport these days. Even in research, walking is frequently overlooked as part of the mode share. But although walking isn't the main mode on many trips it is still an essential mode for stages of trips. In combination with other environmentally friendly modes like the bicycle and particularly public transport, walking represents an alternative to motorised private mode trips (MPM). Therefore, environmentally friendly modes have to be thought of as a viable alternative.

In the car-dominated city of Perth, the number of motorised private mode kilometres travelled and the share of trips by driver-only vehicles further increased in the last decades. Simultaneously the amount of trips with environmentally friendly modes decreased.

In recognition of the environmental impacts of this behaviour change as well as growing traffic congestion, the State Government adopted the Metropolitan Transport Strategy (MTS) to achieve a more balanced transport system. The need to change the mode share for travel – the aim of redistributing car driver only trips across other modes and therefore an increase of trips with environmentally-friendly modes like walking – is clearly enunciated in the set of targets in the MTS of the Perth Metropolitan Region (Department of Transport et al., 1995).

But why promote walking? While walking is the easiest way to change modes, people often do not consider walking as an alternative to a car trip, even over short distances. Additionally walking doesn't require any special knowledge or skills and the infrastructure for walking already exists. Walking increases personal fitness and health – an effect that is often underestimated especially in the context of its impact to socio-economic benefits (Ker and James, 1999).

But how can walking be promoted? This paper outlines the potential of the soft policy Individualised Marketing, to achieve behavioural changes in people's individual mode choice – less car trips as driver and a higher share of walking trips.

Mobility Characteristics for South Perth

The Mode Share in South Perth

Two surveys conducted by *Socialdata* in South Perth in 1986 and 1997, based on travel diaries, showed the following means of transport as main mode on a trip.

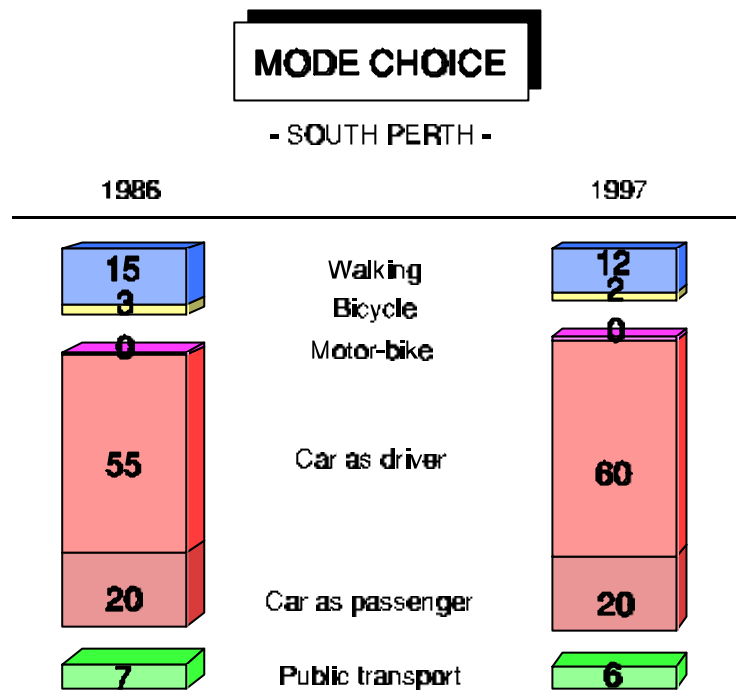


Figure 1. Mode Choice

Some changes in the modal choice of South Perth residents can be observed between the 1986 and 1997 survey results.

While in 1986 the share of walking as main mode comprised 15 %, by 1997 this share had decreased to 12 %. A reduction in mode share can also be seen in other environmentally friendly modes. Between the surveys in 1986 and 1997 the share of bicycle trips decreased from 3 % to 2 % and the use of public transport as main mode declined from 7 % to 6 %.

Meanwhile the use of car as driver increased by five percent from 55 % to 60 % for all trips. Hence South Perth residents made four of every five trips with motorised private modes in 1997. Compared with 1986 a considerable increase in the use of motorised private modes occurred in the mode share.

These changes in travel behaviour correspond with the community health observation that “over the last few decades the amount of physical activity in our day-to-day lives has decreased significantly” (Department of Health and Family Services, 1998, p5).

The change in mode share has occurred while other mobility indicators have remained almost constant.

The number of activities (2.0 per person / day) and trips (3.4 per person / day) of an average South Perth resident was the same in 1986 as well as in 1997, while the travel time decreased by three minutes (from 61 to 58 minutes travel time per person / day). Meanwhile the average distance covered by a person per day decreased by 3 kilometres to 27 kilometres per person per day.

Mobility Characteristics

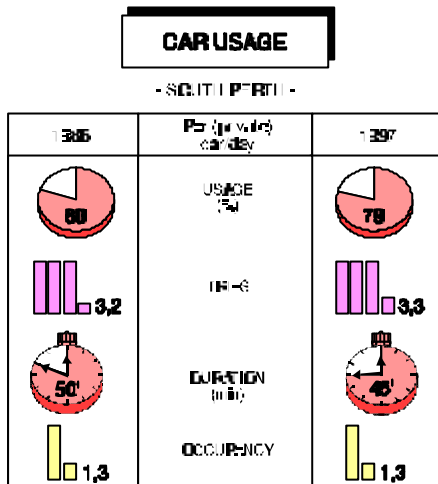


Figure 2. Mobility Characteristics

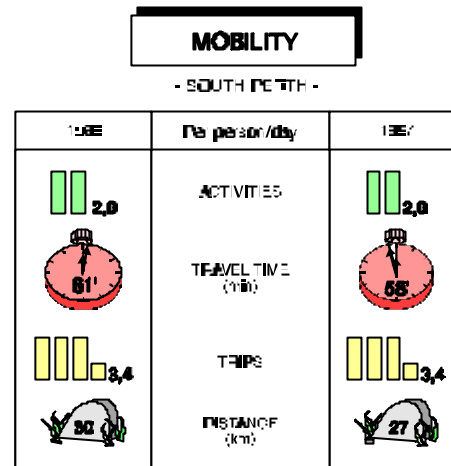


Figure 3. Car Usage Characteristics

Similarly some indicators on car usage show a relatively unchanged picture over the decade from 1986 to 1997.

Out of all private cars 80 % were used on an average day in 1986 and 79 % in 1997. Those cars used made 3.2 trips (1986) compared to 3.3 trips (1997) per day. While the average travel time decreased by five minutes (from 50 minutes in 1986 to 45 minutes in 1997) the car occupancy remained at 1.3.

Hence all usage characteristics are declining or remain (almost) the same. The increasing share of trips with car as driver between 1986 and 1997 therefore is due to an increasing number of cars owned by South Perth residents and not by a more intensive use of the single car (ie. car sharing, higher occupancy etc.).

Potentials for Walking – Based on an In-depth Survey in “Perth”

Data Base and Study Area

In October / November 1998 an in-depth survey was carried out in South Perth, Victoria Park and Subiaco (called “Perth” in the following sections) to obtain information about the reasons for individual’s mode choices on special trips as well as to evaluate the potentials for behavioural change. The in-depth research methodology requires an intensive dialogue which takes up to an hour with each household, each member having previously completed a travel diary (Brög and Erl, 1980).

Journey Purpose and Trip Distance of Private Car Trips

In South Perth a private car is used for 1125 trips per year. Of these trips 1100 are entirely within Perth. Figure 4 shows the distribution of car trips by journey purpose and trip distance.

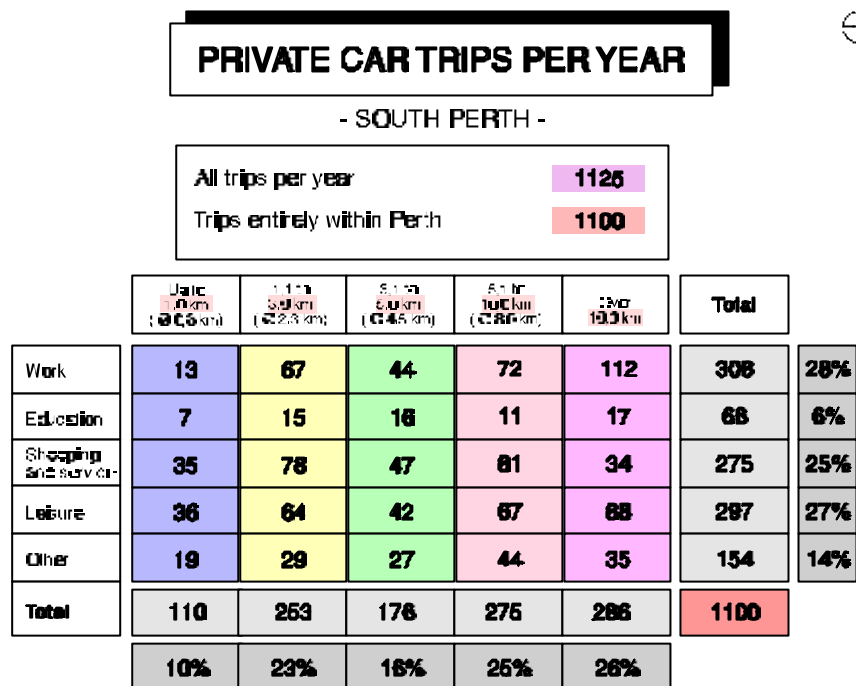


Figure 4. Private Car Trips Per Year

Of those 1100 car trips within Perth 10 % (110 trips) are up to one kilometre in length (average 0.8 km) and 23 % (253 trips) are between one and three kilometres (average 2.3 km). Trips of these distances – around one third of all car trips – are potential walking trips, provided there are no constraints (e.g. heavy parcels or trip chaining).

The main journey purposes for trips with distances up to three kilometres are shopping (including “service” trips to the post office, the doctor, etc.) followed by leisure and work trips.

Therefore there are many car trips which have – at first glance – the potential to be alternatively undertaken on foot.

To determine the potential for alternative modes like walking to car trips, it is necessary to investigate each individual trip to see if there was an objective reason for using a car (e.g. business use of the car, car trips within a longer trip chain, transport problems, etc.) and whether an alternative mode would actually have been available. The interactive approach of the in-depth technique coupled with each individual’s travel diary makes it possible to clearly differentiate between people’s subjective as well as objective situation. (Brög et al., 1999b)

Mode Alternatives for a Change of Behaviour

The evaluation of the in-depth research showed that in South Perth the car trips comprise more than three quarters of all trips (76 %).

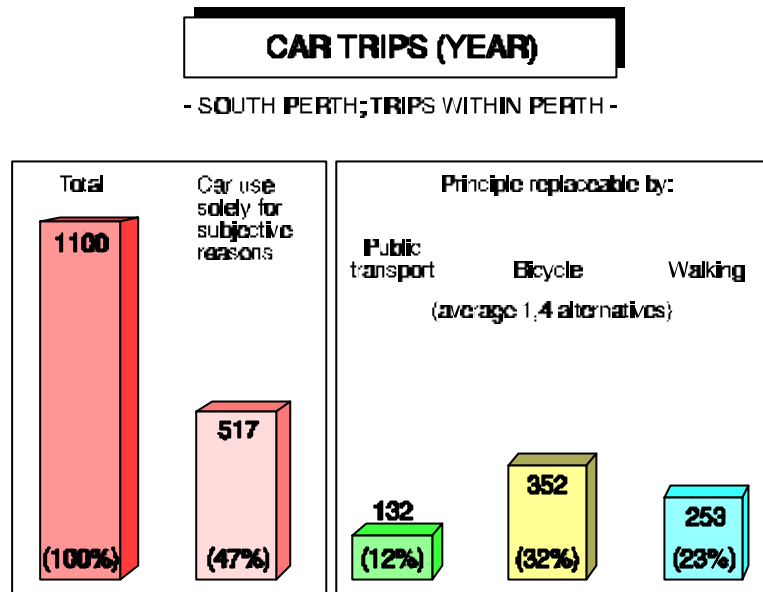


Figure 5. Possible Changes of Behaviour

Of the total number of car trips within Perth, 47 % are in principle replaceable (car trips with no constraints, the use of an environmentally-friendly mode possible) by alternative modes. On average there are 1.4 alternatives in principle for every replaceable trip. Trips on foot represent a possible alternative in 23 % of all car trips.

In practise the reduction in car trips and the increase of walking trips are not an issue of potential but rather the effectiveness of behaviour change measures. In this context, information and communication have already proved to be effective measures to increase the share of environmentally-friendly modes such as walking.

Counter-arguments against Walking

As mentioned above, 23 % of all car trips are in principle replaceable by trips on foot (car trips with no constraints, walking possible). In further inquiries in the in-depth interviews, the respondents revealed the reasons why they have chosen the car on special trips instead of walking.

The amount of time needed for walking instead of using the car was decisive in 12 % of those potential walking trips, and in 11 % of the trips the lack of infrastructure was the reason not to walk. In 22 % of all car trips, comfort was mentioned and in 24 % of those potential trips on foot the community climate was the counter-argument. Hence subjective reasons were the argument to use other modes, rather than walking.

Therefore measures in the system – the “hard policies” – only have lasting success when they are accompanied by suitable measures for people’s travel decision making: the “soft policies”.

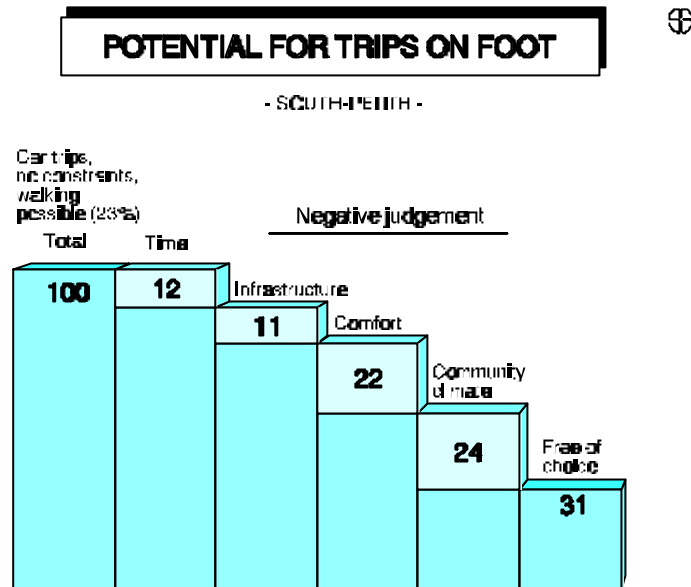


Figure 6. Potential for Trips on Foot

Commonly accepted findings confirm that infrastructure has only a relatively small potential to increase walking trips. In contrast a substantial increase in trips on foot is possible when the general opinion (community attitude) accepts walking as a common everyday transport mode.

Of all trips 31 % are personal choice travel decisions. For these trips people are neither “objectively” nor “subjectively” obliged, but they do not think of walking as an alternative and therefore just an increase in awareness could influence the mode choice.

There are many possibilities for a change in mode choice. But how can a change for these principally replaceable trips – away from MPM towards walking – be achieved?

A Means to Foster the Mode Share of Walking – Individualised Marketing

Marketing is often predominated by hard policies, whereas the impact of soft policies is underestimated. But research shows that soft policies can activate large potentials by correcting the (incomplete and too negative) subjective perception. Such a correction – studies have demonstrated this over and over – are capable of mobilising potentials on the same scale as system measures.

Under the banner TravelSmart® education and participation processes are used to influence the individual mode choice of Perth residents. One initiative of TravelSmart® was to conduct a pilot project of Individualised Marketing in the City of South Perth. *Socialdata* had already successfully conducted individualised Marketing for the promotion of public transport in several European cities. But this Individualised Marketing campaign was the first with the objective to increase the mode share of all environmentally friendly modes – walking, cycling and public transport – at the same time. (Brög et al., 1999a)

To encourage walking trips, assistance was offered within a dialogue marketing campaign. South Perth residents who indicated an interest in walking could order a

leaflet on the health benefits of walking as well as participate in the “be active – walk it” Heartmovers Kit – a programme which aims to improve health by walking. Additionally the book “Peninsular City” about the history of South Perth and a TravelSmart® coffee mug was offered to the participants.

The project’s objective was to test the ability of soft policies like IndiMark to influence travel behaviour in a community. To prove whether the “soft policy” Individualised Marketing is a successful means to activate “sleeping” potentials an evaluation with a before (September 1997) and after (November 1997) travel survey was carried out.

The Effects of Moderate Behaviour Changes

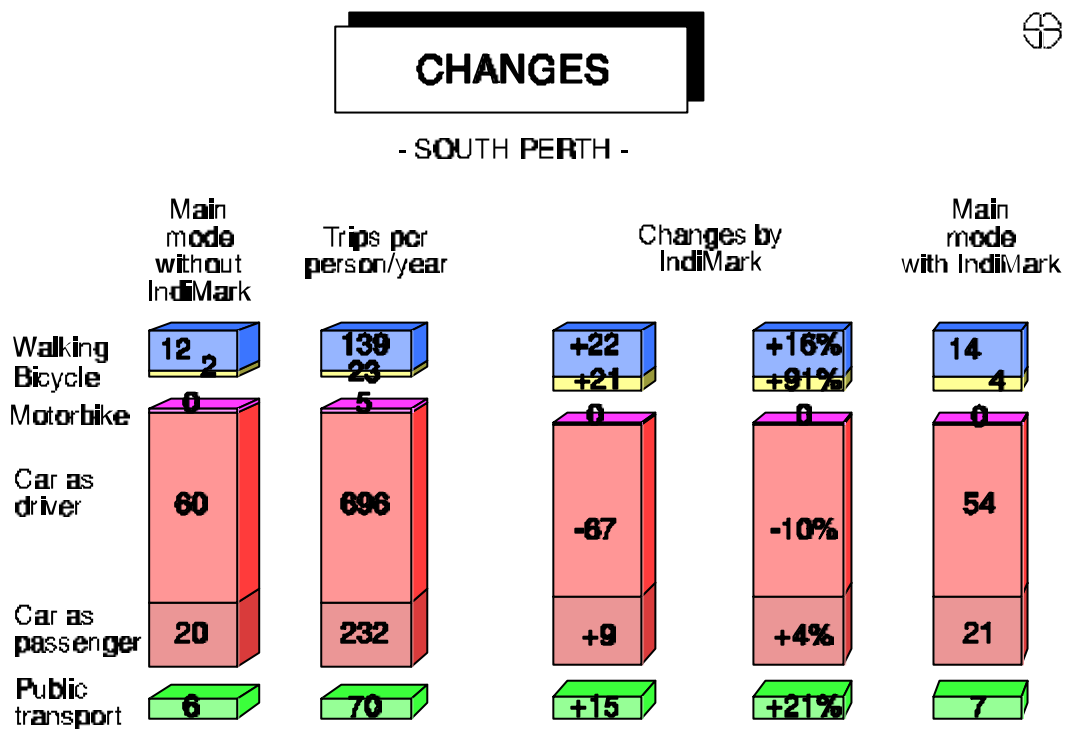


Figure 7. Changes Through IndiMark

The South Perth residents contacted for the pilot study used the car for 80 % of their trips (60 % as driver). In contrast the share of walking trips amounts to 12 % of the mode share, cycling trips to 2 % and trips with public transport to 6 %. That means that within one year an average South Perth resident covered 139 trips on foot, 23 with the bicycle, 696 trips with the car as driver, 232 with the car as passenger and 70 trips with public transport.

After the IndiMark campaign the number of trips with all environmentally-friendly modes gained – i.e. the number of walking trips increased by 22 trips per average resident a year or by 16 %. At the same time a significant decrease in trips with car as driver can be stated – a reduction of 67 car trips as driver per person per year or a decline by 10 % respectively.

Therefore around one third of the shift from car trips as driver (67 trips) was substituted by walking trips (22 trips) – a substitution potential which is frequently underestimated (especially compared to other mode alternatives) although walking has the biggest share

of mode change. Likewise the increase of walking trips by 16 % was achieved with a moderate behaviour change – 22 additional walking trips per person per year equals less than one trip to and from only one activity per month.

The Sustainability of IndiMark

Two further evaluations of the IndiMark campaign were conducted to measure not just the direct outcome of IndiMark but also to prove whether the effect of the campaign could be sustained over a longer period of time.

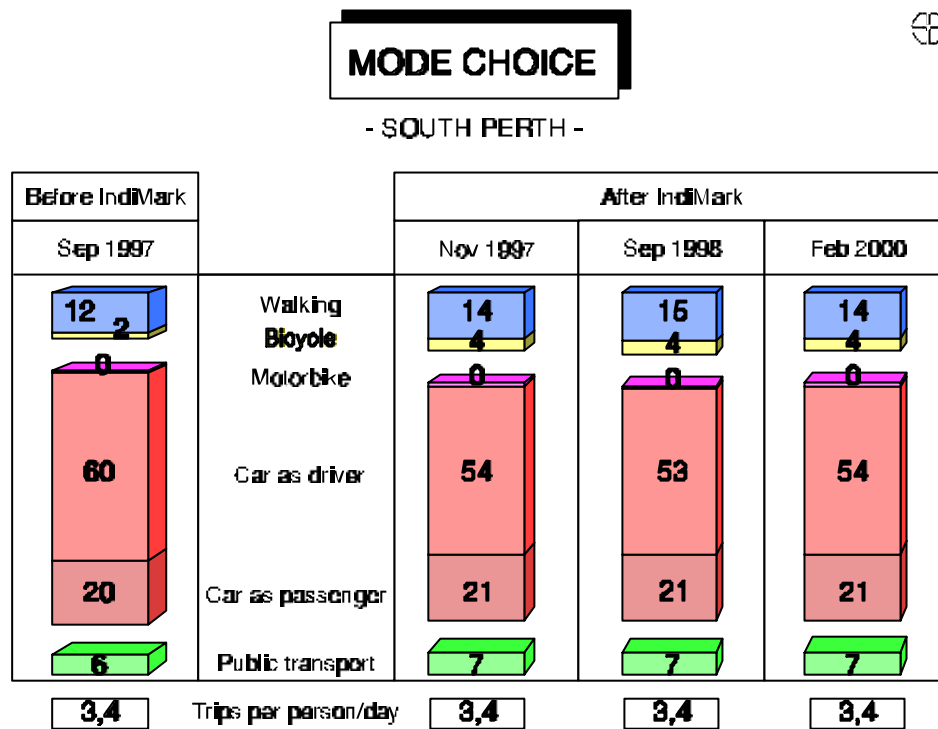


Figure 8. Mode Choice After IndiMark in South Perth

As mentioned above the mode share of trips with cars (as driver) was reduced from 60 % to 54 % while the share of walking trips increased from 12 % to 14 % due to the IndiMark pilot project in 1997.

To prove whether the results are sustainable or not, a second evaluation was carried out one year later (September 1998). By that time, the share of car trips (as driver) reduced a little to 53 % of all trips. At the same time walking trips increased to 15 % of the mode share. Hence the effects of IndiMark were sustained one year later and even slightly improved for trips on foot.

A further evaluation was conducted in February 2000 to prove whether IndiMark can foster the use of alternative modes such as walking even in the long term. This third evaluation demonstrated that even two years later, the increased mode share for walking and the reduced car use following the IndiMark campaign still existed: The mode share was the same after 27 months as directly after the IndiMark pilot project.

People making voluntary changes in their mode choice achieved all changes. Therefore “soft policies” like Individualised Marketing are an effective tool to foster behavioural

changes even in the long term. These results show that this form of voluntary behaviour change is worthy of becoming a mainstream transport planning activity to promote walking.

Meanwhile a large scale IndiMark campaign with about 15,000 households / 35,000 people was successfully conducted also in South Perth. While the numerical results of the evaluation on the effectiveness of IndiMark on the mode choice are not yet available there are several indicators that the campaign was successful. 2,500 participants requested further information on walking and cycling, and the following feedback indicates the positive atmosphere during the campaign as well as the willingness of South Perth residents to contribute to an environmentally friendly mode share:

- The kit provided is so easy to follow and I found it motivated me to walk to work in the city each day.
- My friends started to walk just thanks to your walking kit, before I was not able to convince them to do it. Now they do, twice a week!
- Direct contact is an excellent way of delivering and promoting ideas, it makes people (certainly it makes me) feel more counted for. I like the idea very much and congratulate you for it.
- Shows that walking can be fun. The info provided help one to set goals which in turn encourages you to keep at it and therefore keep fit and healthy.
- The more people you can encourage to get out and walk the better. It will lead to happier, healthier citizens of South Perth.
- People sometimes think that walking is only a leisure activity. It gets people thinking that they could walk to the shops etc. instead of taking the car.
- I found your material on walking most useful – I now frequent the local shop (I have cancelled newspaper delivery and walk to collect my paper). I walk a friend's dog morning and evening and walk with a friend (...) several times a week.
- Is this the first city to embrace this program? If so I hope it will be a stimulus to other cities to get involved.

Summary

In terms of increasing traffic and its negative consequences such as congestion and its impact on the environment, public awareness changes towards environmentally friendly modes. But this positive attitude itself often doesn't have any consequences on travel behaviour. But how can a change in mode choice be achieved?

A switch from motorised private transport to walking can be stimulated by both hard as well as soft policies. Hard policies like infrastructure measures are geographically limited in the long term. In contrast soft policies work within the short term and are not limited to special geographical areas. Also the behavioural decision to walk is based on subjective reasons such as community attitudes – not to mention the high potential for behaviour change in connection with personal choice travel decisions where people sometimes just do not consider walking. Therefore soft policies have considerable potential particularly in the subjective field, yet are still poorly understood as well as underestimated.

The IndiMark-pilot project conducted by *Socialdata* within the TravelSmart® project in Perth proved that soft policies like Individualised Marketing can convince people to

change their travel behaviour for one or more trips without major changes in their lives. Yet added together, these small individual behaviour changes have great influence on the mode share towards an increasing environmentally friendly transport.

Further evaluations proved that the effects of IndiMark could be sustained even in the long run – the increased share of walking trips and the reduced share of car trips remained the same even over the period of more than two years. Therefore IndiMark is an effective means to foster environmentally friendly modes like walking.

But why especially promote walking? Because walking is the easiest way to change modes. As soon as there is a willingness to change, people are more inclined to consider walking as an alternative mode of transport. It's neither necessary to own a bicycle nor to gain knowledge on how to use public transport. The only thing to do is to leave the car keys at home. Additionally walking increases personal fitness and is the most environmentally friendly mode.

Therefore: just walk!

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