Australasian Transport Research Forum 2013 Proceedings 2 – 4 October 2013, Brisbane, Australia

Publication website: http://www.atrf.info/papers/index.aspx

Evaluating Travel Training in Northern Sydney: methodological and practical issues.

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Abstract

Growth in the relative size of the population of older people has led to increased demand for community transport services, especially from people who are no longer able to travel safely in their own cars. A proportion of these people could use mainstream public transport but, through lack of experience, do not know how so they turn to more expensive community transport services. Travel training addresses this issue. It is targeted at all potential public transport users who need some assistance or guidance to get started.

This policy has potential to be a win-win for government and individuals by increasing public transport patronage, improving mobility (and quality of life) of trainees and their carers, and relieving pressure on the community transport sector enabling it to reduce 'unmet need'. Travel training is most effective in cities: public transport networks are established and there are significant pockets of potential trainees.

Travel training has grown strongly in the US, driven by the positive benefits for all parties compared with the relatively low cost of the training. Attempts to quantify the benefits of travel training have to date been narrowly focused. This paper uses data from the Travel Training Project in Northern Sydney to develop and apply a broad evaluation framework encompassing measurable economic, social and environmental outcomes. The framework makes use of standard parameters such as value of time where possible. It also includes the application of theory from other disciplines to measure social and environmental benefits.

The evaluation of the Travel Training Project in Northern Sydney results in significant benefit-cost ratios. The evaluation gives benefit-cost ratios, differentiating groups of potential travel trainees. The paper provides results to assist prioritisation of trainees that lead to higher benefit-cost ratios, and policy development.

Keywords: Travel Training, Public Transport, Community Transport, Project Evaluation, Social Isolation

1. Introduction

The idea of travel training is to provide potential users of public transport with sufficient information, confidence and initial experience of public transport to be able to use it independently (Wolf-Branigan, 2008, pages 109-10). Travel training is likely to be most successful in areas where the public transport network is well developed. In Australia this limits programs to larger urban areas. In principal the target clientele for travel training are people who would like to use public transport, but perceive too many barriers to actually doing this (Babka R, et al, 2009; Musselwhite, 2011; Wolf-Branigan K, and Wolf-Branigan M, 2010).

A project to trial travel training in Northern Sydney was started in 2010, funded under the Home and Community Care (HACC) program for financial years 2010-11 and 2011-12¹. The groups recruited for travel training included people who were becoming too old or frail to drive themselves, people who currently used community transport services or taxis but were able to increase their mobility by using cheaper and more flexible public transport, people who were being driven by a carer, and people who currently needed a carer in attendance when using public transport.

The Travel Training Project initially targeted mobile elderly Health and Community Care (HACC) clients. However, as the project progressed a demand was recognised from younger clients with a disability whose main need was to travel to work and training. Since there was capacity within the project, some of these people were taken on as trainees even though they were outside the original target group.

This paper reports a measurement of the overall cost effectiveness of the Travel Training Project by comparing program costs with estimated benefits to trainees, government agencies and the wider community. Since the objectives of travel training encompass both economic and social benefits, there is a need for a more multidisciplinary approach than has been used to date in the evaluation of travel training. In particular, measures that put a monetary value on the benefits of increased social participation and reduced social isolation must be placed alongside more familiar measures of relative transport costs and of the expected contribution of travel trainees to the wider economy.

The Travel Training Project in Northern Sydney included two elements: training sessions with individual clients and presentations to groups of potential public transport users. The evaluation focuses on the individual training. By September 2012, 23 individual clients had been trained. This evaluation is based on these clients: it uses information on intended travel to assess the overall cost-effectiveness of travel training and to identify groups of clients who attract the highest benefit-cost ratio.

2. Literature review

Stufflebeam (2001) identifies 22 different approaches to the evaluation of education programs, with varying narrowness of focus, examining typical purpose, method, strengths and limitations for each.

¹ Easy Transport acknowledges the financial support of the NSW Government for the Travel Training Project. Views expressed in this paper are those of the authors and not necessarily those of the NSW Government.

Inevitably the categories are not entirely mutually exclusive, but the list serves to demonstrate the wide variety of methods employed within the field. The majority of the approaches are based on the measurement of outcomes; the benefit-cost approach is highlighted as the one which enables the assessment of investment payoffs. The main limitations of the benefit-cost approach are (i) 'low feasibility' and (ii) that 'vital data may be inaccessible to evaluators' (pages 53-55).

An advantage of the benefit-cost model for program evaluation is its relatively long history and consequent focus of attention for academic researchers (Sharp, 2004). Of interest here is the trend over the last 20 years for increased acceptance that evaluation should not be limited to financial measures alone and that there is a place for non-priced performance measures. This thinking has been influenced to some extent by the development of Kaplan and Norton's popular 'balanced scorecard' approach (Management Advisory Board, 1997).

Benefit-cost analysis is defined by Prest and Turvey (1965, page 685) as "a way of setting out the factors which need to be taken into account in making certain economic choices". The economic choice here is whether or not the Travel Training Project should continue. This choice is informed by whether the project results in a net gain to society in relation to its costs. In the analysis presented here the 'way of setting out the factors' includes the identification and estimation of costs and benefits in money terms associated with the project, and the discounting of these sums across the estimated timespan of the benefits.

Although this method of decision-making appears straightforward, Stufflebeam (2001, pages 29-33) argues that all benefit-cost evaluations include three elements, which share a hierarchical relationship. The first element is developing a full understanding of program input costs at a detailed level. Secondly, the benefit-cost analysis considers cost effectiveness: how well does the program meet its (direct stated) objectives in relation to the amount of resource spent on each? Clearly this answer requires the first element as one of its inputs. The third element, benefit-cost analysis, makes use of elements 1 and 2 together with some carefully selected measures of wider social benefits to address the question: how do the direct and indirect benefits compare with overall project costs? It is noted that it is often difficult to identify, let alone quantify, all benefits and in many cases the benefits take a long time to come into fruition. In addition, allocation of costs, especially organisational overheads, can be haphazard (Levin and McEwan, 2001, pages 45-46 and 159).

Travel training evaluation demands that the analysis is extended beyond the measurement of monetary transfers. Litman (2013, page 8) stresses the importance of a comprehensive approach to benefit evaluation in transport, and notes that many economic evaluations are often too narrow in focus. He suggests ways that wider mobility benefits, including the value that new public transport riders place on mobility, might be measured. This has been a long standing demand: Jones and Lucas (2000) called for "appraisal frameworks that can set out clearly and comprehensively the contribution of different project proposals to the full range of public policy objectives". Stanley et al (2011, page 201) set out the connection between mobility and social exclusion, and propose a method for evaluating increased mobility using a choice-based model. Stanley, Stanley and Hensher (2013) put monetary values to increases in social capital and social inclusion resulting from improved mobility.

There have been various attempts to develop models that measure the benefits of travel training. Wolf-Branigan and Wolf-Branigan (2010) presented the most comprehensive to date. They identify a broad range of potential benefits, but limit their measurement model to those which can be ascribed a direct monetary value: trainees' projected income increases and associated tax payments; modal fare and subsidy differences; increased expenditure by trainees; and the value of additional volunteer work by trainees.

In evaluating TravelSmart projects across several Australian States and Territories, the Department of Environment and Heritage (2005) focused on the environmental benefits of encouraging modal shift from private cars to public transport, but did not consider the wider social benefits for those projects that included improved dissemination of public transport information. The UK Department of Education (2009) published a narrower benefits model, focusing on transport subsidy savings from modal shifts, and environmental benefits in the form of CO_2 emissions. This model also attempts to measure "wider access to travel benefits" by assuming that travel training would enable trainees to travel without the assistance of a carer, and that the resulting time saving for carers (valued as leisure time) would serve as a proxy for the overall mobility benefit. Similarly, the UK Department for Transport (2011) recognises the wide spectrum of benefits of travel training but the calculations proposed for preliminary valuation of travel raining schemes are limited to direct monetary effects.

3. Methodology

The aim of the research reported here was to conduct a benefit-cost analysis for a project to trial travel training. The key policy question to be answered was whether benefits of travel training significantly exceed the project costs. Of course, to compare costs and benefits requires that both be measured in the same units: a major challenge was to establish monetary values for social outcomes. In addition, and assuming that benefits do significantly exceed costs, the research would help with future policy formulation if it identified the particular groups of travel trainees that had the highest benefit.

Finkler (2010, page 200) presents a breakdown of the tasks to be completed in a benefit-cost analysis:

- (i) "determining the project goal;
- (ii) estimating project benefits;
- (iii) estimating project costs;
- (iv) discounting cost and benefit flows at an appropriate rate;, and
- (v) completing the decision analysis".

This framework has been used to develop the analysis reported in this paper. The rest of this section outlines the methods used to complete these tasks.

3.1 Determining the Project Goals

The goals of the Travel Training Project were set out in the initial project documentation. These are: to reduce demand for future community transport in a time when the relative size of the aged population is growing; improving the accessibility of public transport; and supporting social cohesion

and wellness by keeping people active and independent for as long as possible (Easy Transport, 2010, page 2).

3.2 Estimating the Benefits of Travel Training

There are many potential benefits of travel training. Figure 1 presents a breakdown of potential benefits by recipients. Although the categories identified in figure 1 are the starting point for the evaluation of travel training benefits, there is some complexity in how these benefits should be measured. Firstly, some of the benefits are a direct result of travel training; others are an indirect consequence and may also depend on other causal factors/chains. If the latter are to be included in the evaluation then there is a need to use apportionment factors to estimate the contribution of travel training to the outcome. The arbitrariness of this apportionment can reduce the robustness of the benefit estimation: consequently the analysis presented here is limited to benefits that are directly linked to the provision of travel training. Secondly, care must be taken to avoid double-counting since the identified potential benefits are spread across different groups, including individual trainees and their carers, government departments and agencies, and the community as a whole. Finally, not all of the potential benefits identified in Figure 1 are readily measurable. The analysis that follows only includes benefits identified in Figure 1 that are direct and can be assessed in quantitative terms. Examination of the categories in Figure 1 reveals five groups of benefits that satisfy these criteria:

- (i) Social: primarily the reduction in risk of social isolation
- (ii) Economic: potential increased consumption and earnings by trainees
- (iii) Economic: carers' time saved through removing the need for driving trainees or accompanying them on public transport trips
- (iv) Cost of travel: net financial savings for trainees and government from changed modes of travel
- (v) Environmental: net emissions reductions from changed modes of travel.

A case-by-case review was carried out with the trainers to record the following information about the trainees:

- (i) The frequency of trainee's intended trips on public transport after travel training;
- (ii) The length of a typical intended trip in kilometres;
- (iii) The purpose of a typical intended trip;
- (iv) The probability as assessed by the travel trainer that trainees would actually use public transport according to their stated intentions;
- (v) Cases where a carer travelled with the client prior to training, but no longer needed to afterwards, and cases where training allowed the trainee to travel to a day program or employment.

The probability of the client making the trip for which they had been trained on public transport was applied to the intended trip frequencies and lengths to derive an expected monthly trip frequency and distance for each travel training client. It should be noted that this analysis only applied to the trip for which the client had been trained. No assumptions were made, and hence no benefits included in this analysis, that clients would make wider use of public transport. It would be impossible to make any assumptions about their total public transport activity. However it could be

Leisure Health benefits More time Carers Operations Can focus on areas outside fixed route network CT operators Income from employment Able to tackle unmet need Less accidents on PT Safety Reduced dwell times Operations Healthcare Reduced on-vehicle accidents Transit operators Work Patronage Access Education Shops and services Saved time through flexibility Individual trainees Savings Businesses Increased spend in shops and services Saved transport spend **Travel Training benefits** Health Social inclusion Confidence Saved CT spend Local Government Wellbeing Independence Saved spend on care homes Ability to stay in own home Saved spend on carers DoHA (Federal) Saved spend on respite care Increase "societal understanding" Saved CT spend Community as a whole Improved PT services Supports aging and disability strategies Values - caring community Saved spend on carers ADAHC (NSW) Saved CT spend Government Supports aging and disability strategies Reduced carbon per km **Environmental impacts** Increased public transport patronage TfNSW Break down dependency culture Policy (federal and NSW) Equity in access to services Savings in public sector agencies (see above) Increased consumption by travel trainees Treasury (federal and NSW) Taxes paid by trainees and carers Multiplier effects in wider economy

Figure 1. Potential Benefits of Travel Training

Source: Easy Transport (2012)

Abbreviations: PT: public transport; CT: community transport; TfNSW: Transport for NSW; DoHA: Australian Department of Health and Ageing; ADHC: Ageing, Disability and Home Care, NSW Department of Families and Community Services.

expected that some clients, after becoming comfortable with their initial trip, would expand their use of public transport. If this were to be the case, this analysis underestimates the benefits that would be derived from travel training. Some estimate could be made of these additional benefits through the use of longer-term follow up surveys of travel trainees.

3.3 Estimating the cost base

Total funding for this project was provided under the HACC program of \$150,000 for the financial years 2010-2011 and 2011-2012. This evaluation has covered the period of the project from July 2010 to September 2012. The total project spend to the end of September 2012 was \$132,000. There was still \$18,000 remaining, which allowed the project to continue beyond the end of 2012. The cost base for this analysis is expenditure on the individual travel training activity over the period between the start of the project in July 2010 and September 2012. For the first 6 months of the project most of the costs were used for initial research and design, for the development of travel training materials and for direct project management activity. These activities are estimated to be 32% of the project expenditure to September 2012.

Since the objective of this analysis is to estimate likely benefits from an ongoing travel training program, this one-off set-up cost is not used in the benefit-cost analysis. In addition, the analysis has not attempted to estimate the benefits of the Transport Information Sessions since this would involve guessing arbitrarily the likelihood of attendees using public transport as a result of the presentations. Therefore the cost of this activity (\$14,000) is also excluded from this analysis. This leaves an estimated cost base for individual travel training of \$76,000 (see table 1). It should be noted that no costs were attributed to the project for overhead administrative items such as telephone, stationery and office management. It would be necessary to include estimates of these additional costs if this evaluation were used to prepare plans for similar travel training programs elsewhere. In addition, a larger scale travel training program would attract costs associated with information management, monitoring and evaluation.

Table 1: Expenditure on individual travel training

Project expenditure type	Expenditure	Note
Set-up expenditure	\$42,000	Not included in this benefit-cost
		analysis
Expenditure on Transport Information	\$14,000	Not included in this benefit-cost
Sessions	\$14,000	analysis
Expenditure on ongoing individual	\$76,000	The cost base for this analysis
travel training	\$70,000	The cost base for this allalysis
Total project expenditure to July 2012	\$132,000	

3.4 Discounting the costs and benefits across future years.

Two decisions were required here: the choice of discount rate; and the estimation of an average time period over which the benefit of each training episode would last. New South Wales

Government uses a standard discount rate of 7% for appraisal of capital projects in transport (NSW Treasury, 1999): for the purposes of this study the equivalent amount was used so as to enable comparability for the funders. In order to be eligible for travel training, clients had to be sufficiently physically fit to be able to get to the nearest bus stop/rail station and to be able to get on and off the chosen transport mode(s). Since a large proportion of the travel trainees were older people, it was assumed that this level of fitness would not last very long, so an average of five years use of transport following training was assumed. This is likely to a conservative assumption overall because some younger trainees with disabilities will continue to use public transport for several decades.

4. Results

In the absence of an established method for the measurement of travel training benefits, the approach has been to make use of known factors (such as the costs of different modes of transport) and apply these to what is known about the trainee's likely travel behaviour. Any assumptions are set out in the description below; the intent at all times has been to avoid over-estimation by being conservative with both estimates and assumptions.

In the period up to 30 September 2012, the Travel Training Project had completed public transport training for 23 people. Prior to training, 9 of these people were unable to travel while the others used a variety of modes. Table 2 shows the number of clients for each of the pre-training modes. There were 5 people who were previously travelling by car, either driving themselves or being driven by a carer. In all cases these people were no longer going to be able to travel by car as they (or their carer) were no longer able to drive: this was their motivation for engaging in travel training. These people have been included as "unable to travel" in the estimation of social and economic benefits.

Table 2. Principal mode of transport before travel training for clients now using public transport

Previous mode	Number of trainees
Unable to travel	9
Car (counted as unable to travel) ²	5
Community Transport	7
Taxi	1
Public Transport (mode change) ³	1
Total	23

The expected number of monthly public transport trips and the kilometres travelled are reported in Table 3 for clients categorised by previous mode of travel. The client who was previously using taxis was considered very unlikely to take up public transport in future and therefore is not included in the analysis described below.

² Trainees switching from car to public transport were people who were no longer able to use their car for travel. They have been treated in the analysis of social and economic benefits as 'unable to travel' before Travel Training.

³ There are no benefits attributed to the one case where the trainee switched from train to bus.

Table 3: Expected trip frequencies and distances

Previous mode	Expected (two-way) trips per month on public transport	Expected kms per month on public transport
Unable to travel	54	773
Community Transport	19	225
Taxi	0	0
Total	73	998

4.1 Social benefits

Each of the 14 trainees who were 'unable to travel' before travel training will enjoy a reduction in (real or potential) social isolation each time they travel. Using a model based on data from the Victorian Government's annual travel survey, Stanley, Stanley and Hensher (2012, page10) estimate a value of \$17.34 per new trip for a person at risk of social isolation, approximately doubled for people on half average income. Since nearly all travel training clients (who would otherwise be unable to travel) are at risk of social isolation and are in low income brackets, this analysis assumes that the value of each additional trip is \$35. Multiplying this up over expected trips in the year yields an estimated annual social benefit of \$23,000 from the expected 54 new trips per month generated by the Travel Training Project.

4.2 Economic benefits

Each new trip that was previously not available also generates wider economic benefits through increased earnings and/or consumption by the traveller. In the absence of any hard information, it has been assumed that each new trip for shopping or social purposes on average generates \$50 expenditure. In one case travel training enabled a client to attend work (although the assigned probability of take-up was low). In this case it was assumed that if taken up, the travel training would enable earnings of \$200 per trip. It is known that pay rates in disability employment centres are often lower than average: if the number of travel trainees using public transport to attend work were higher, then more rigorous analysis of pay levels would be used to test this assumption using data on expected pay levels of travel trainees. It was assumed that there would be no economic benefit for clients who intended to use public transport to attend a day program.

An analysis of travel training outcomes identified 292.2 additional annual expected trips per year for shopping or social activities and 4.8 additional annual expected trips for work. On this basis the total annual economic benefits for the newly enabled trips are estimated to be about \$15,600.

4.3 Travel benefits

The direct travel-cost benefits of travel training are any fare savings by travellers plus subsidy reductions for the government. Reporting research on the private and societal costs of different transport modes, Glazebrook (2009) estimates that for each new public transport trip the traveller incurs a per kilometre cost of approximately \$0.15 per kilometre, and that this is less than one third of the cost per kilometre using a private car (\$0.50). Therefore each trip previously undertaken in a car and now using public transport saves the traveller \$0.35 per kilometre.

Using data from the Community Transport services in Northern Sydney, the cost to the passenger using community transport is estimated at \$1.20 per kilometre⁴. Therefore a transfer to public transport from Community Transport saves the traveller just over \$1.00 per kilometre. Table 4 summarises these savings for individual travellers.

Table 4: Savings to individual travellers from switching to public transport

Previous mode	Saving per km, \$
Did not travel	-\$0.15
Car	\$0.35
Community Transport	\$1.00

The cost to society (including government subsidies and externalities) per kilometre travelled by both private car and public transport is approximately \$0.40 (Glazebrook, 2009). Hence each new trip generated by travel training costs the government about \$0.40 per kilometre. Each trip switched from private car to public transport is neutral in relation to this societal cost.

Again using data from the Community Transport services in Northern Sydney it is estimated that each trip switched from Community Transport to public transport saves about \$2.20 per kilometre in government subsidy⁵. These savings to the government are summarised in Table 5.

Table 5. Savings to government from switching to public transport

Previous mode	Saving per km, \$
None	-\$0.40
Car	\$0.00
Community Transport	\$2.20

Applying the estimated cost savings in tables 4 and 5 to the estimates of the additional kilometres travelled using public transport by the travel trained clients (Table 2), and netting off the additional costs for new travellers, leads to a total expected annual transport benefit of \$6,800 from the Travel Training Project.

4.4 Carer benefits

People who are carers of older people and people with a disability forgo many benefits in terms of loss of leisure time and loss of employment opportunities. In four of the cases in the Travel Training Project, the enablement of independent travel for the travel trainee had the additional benefit of freeing up time for their carers, who no longer had to accompany the client on trips. In three of these cases, it was assumed that the saving would be three hours saved time for the carer for each expected trip. In the remaining case – the client would travel to day care – it was known that this

⁴ The actual per kilometre payment depends on distance: this estimate is an average. In addition, although the community transport 'fare' is normally voluntary: it is assumed here that most clients pay.

⁵ Community Transport subsidy estimated from Northern Sydney funding and operational statistics: approximately \$2:60 per passenger km funding for community transport compared with Glazebrook's (2009) estimate of \$0.40 for public transport.

would save the carer seven hours per trip. At a value of \$10:00 per hour for leisure time⁶, this yields an annual benefit to carers of about \$18,500. Note that there is no assumption that these carers had additional free time for employment: if this were the case then the benefits would be significantly higher.

4.5 Environmental benefits

The use of public transport by travel trainees also has a modest impact on CO₂ production. The parameters in Table 5 are estimates by the UK Department for the Environment, cited in Department for Education (2009).

Table 6: Mode switch savings CO₂ per km

Previous mode	Reduction in CO ₂ (grams) per km travelled on public transport	
None	-40	
Car	110	
Community Transport	110	

Applying these parameters to the expected new and switched-mode trips gives an estimated annual saving of about 0.5 tonnes of CO_2 attributable to the Travel Training Project. The monetary value of this reduction is very small and has not been added to our estimates of benefits.

4.6 Summary of benefits

The total of the benefits per annum derived from social, economic, transport and carers benefit estimates, as described above, is shown in Table 7. Of course the benefits of travel training are not restricted to the year in which the training took place. In the case of younger adults the benefits may extend over several decades if they continue to use public transport. For older people, the length of time that public transport can be used may be just a few years.

It has been assumed here that the benefits of training would continue for an average of five years. The benefits in subsequent years are discounted at a rate of 7% per year. Using the assumptions and methods described above, the analysis leads to expected benefits of approximately \$261,000. This result is not very sensitive to the discount rate: a choice of 5% and 10% would lead to benefits of \$276,000 and \$242,000 respectively.

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⁶ This is almost certainly an underestimate. DCITA (2007) estimate that the value of leisure time depends on income. Values of \$6, \$17 and \$26 per hour are estimated for annual incomes of \$12,500, \$37,500 and \$62,500 respectively.

Table 7: Summary of estimated benefits

Benefit	Annual benefit	NPV assuming 5 years continuation, with 7% discount rate ⁷
Social	\$23,000	\$94,300
Economic	\$15,600	\$63,800
Transport	\$6,800	\$27,700
Carer benefits	\$18,500	\$75,700
Total benefits	\$63,800	\$261,500

4.6 Benefit-Cost Ratio

Comparing the costs (see section 3.3) to the benefits summarised in Table 7 gives a benefit to cost ratio of 262,000:76,000, or about 3.4:1. Thus for each dollar spent, this Travel Training Project has resulted in a total direct benefit of \$3.40. This could be considered to be a significant return on the original investment.

5 Discussion and conclusions

The analysis presented has placed a monetary value on the direct outcomes of the Northern Sydney Travel Training Project. Since the majority of travel trainees are people at risk of social isolation, the estimation of benefits has made use of measures of societal benefits that are beyond the conventional measures of time and money savings most commonly used in transport benefit-cost analyses. The contribution of Stanley et al (2012) to this area is of importance: just over one third of the total benefits of the project are based on their modelling of willingness to pay for an additional trip.

Although this paper represents progress on the preoccupation of previous evaluations on tangible benefits such as time savings and environmental outcomes, it should be noted that a large number of the benefits identified in figure 1 are not included. In most cases this is because there are no established methods with which to monetise the benefits on a unit basis. In addition, for some of the benefits, there is no clear direct causal link from travel training.

The measurement of benefits presented in this paper has been built using the assumptions outlined in sections 4.1 to 4.6. The reader should note that these assumptions may render the analysis ungeneralisable to travel training projects that concentrate on particular population groups. Some of the assumptions would benefit from further research. For example, it has been assumed that travel trainees tend to be of low income and at relatively high risk of social isolation: there is no evidence from the project's records to support or reject this assumption.

This paper started by examining the range of potential benefits that could be attributed to travel training. The analysis has focused on direct outcomes; the difficulties associated with apportionment, and in some cases measurement, of indirect outcomes means that the actual

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⁷ The choice of 7% discount rate for this analysis is the standard for NSW government benefit-cost assessments. See TNSW Treasury (1999).

benefit of travel training is underestimated. In particular, the effect for the population and for government of prolonged independent living, improved road safety, and the contribution to increased public transport patronage are all potentially significant additional benefits. In addition the analysis has been conservative in its assumptions, so that the benefits derived could indeed be greater.

Within the bounds of the assumptions and constraints reported above, it is possible to examine the groups of travel training clients who generate the greatest benefit. Consistent with the construction of the model, the greatest benefit was ascribed to trainees whose anticipated probability of public transport use after the training was frequent and whose probability of take-up was high. These were the trainees who expected to use public transport for daily activities such as social day care. Four of these clients attracted higher than average benefits because travel training enabled independent travel that would release time for their carers.

Clearly any travel that enables people to attend work or work training has the most potential for aggregate benefit: the small numbers reported here reflect the way people were initially recruited for the pilot and the way this has since changed. This evaluation only included activity on the Travel Training Project up to September 2012. Since then a further 6 travel trainees with disabilities have started travelling to work using public transport, another 3 are using public transport to attend Transition-to-Work programs and 6 more are in the process of being trained as this paper is being prepared. The inclusion in future benefit-costs analysis of the expected trips for these cases will have a substantial positive effect on benefits.

The largest proportion of benefits identified in this evaluation is associated with reduction in the risk of social isolation. In particular, there are sizeable benefits from travel training for individuals who have a low income and are at risk of social isolation. These benefits are only attributed to trainees that were planning to make new trips as a result of the training. Examination of the average overall benefits for trainees (excluding the four cases with an additional carer benefit) between those who intended to initiate new trips (N=12) and those who intended to change mode for existing trips (N=7) reveals that travel training leads to approximately twice the benefit for individuals making new trips.

It is anticipated that travel training in Australia will soon experience the high growth experienced in the US. The benefits suggested by the evaluation reported in this paper suggests that transport authorities can make a case for travel training at least in urban areas where there is sufficient public transport provision to enable people to make the choice.

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