

IN SEARCH OF AN EFFECTIVE SERVICE DELIVERY MODEL TO PROVIDE SERVICES FOR THE TRANSPORT DISADVANTAGED

Helen C. Battellino
Director PPM Consultants

INTRODUCTION

The link between transport disadvantage and social exclusion has been the subject of extensive research, especially in the UK, over the past few years. In the UK, policy makers have embraced these concepts with the establishment of the Social Exclusion Unit and the development of processes of accessibility planning at the local level (Social Exclusion Unit 2003).

Although, to a lesser extent than in the UK, research projects in Australia have also provided evidence of the existence of transport disadvantage in the community. However the policy response could not be said to be as well developed as in the UK. Research in this field to date in Australia has focused on establishing the existence of transport disadvantage and establishing the links with social exclusion and the impact of that disadvantage on the individuals and the broader community. Developing accessibility analysis approaches to measure transport disadvantage and to provide benchmarks for overcoming that state have also received attention. However there appears to be little research into, or discussion about, how to bridge the gap between this body of knowledge and an appropriate policy response to providing transport for the transport disadvantaged and the practical design and implementation of such transport services. Different approaches are being tried in different States to provide transport for the transport disadvantaged.

This paper discusses the approaches being taken in NSW to provide services for the identified transport disadvantaged communities. In particular it will discuss the options of providing subsidised services for the transport disadvantaged through the Community Transport projects, as well as within the context of the performance-based contract regime as operates in NSW, and the community development model of project funded transport solutions. It will draw on research which has been conducted by the NSW State Government, but which to date has not been in the public domain.

TRANSPORT DISADVANTAGE IN AUSTRALIA

Research in Australia into transport disadvantage and social exclusion is not as extensive as in the UK, however it is gaining momentum with the work being done at the Institute of Transport Studies at Monash University lead by Prof. Graham Currie. Other key researchers in the field include Gleeson, Dodson, Randolph and Hurni (for examples see Dodson et al. 2004). Unlike transport disadvantage in other western countries such as the UK and the US, Currie maintains that the transport disadvantage situation in Australia is unique in that it is

concentrated in the sprawling outer suburbs of the large urban areas and rural and regional areas (Currie 2007). Here public transport services are very limited and often non-existent impacting on the opportunities for social inclusion. Access to employment, particularly for youth and low income households, often of Culturally and Linguistically Diverse (CALD) or Aboriginal background, are common problems. This situation has been highlighted in Currie's work on transport opportunities for youth in rural and regional Australia (Currie 2005) and Randolph and Hurni's work on social exclusion and transport disadvantage in Western Sydney (Randolph 2003, Hurni 2006).

However it should not be overlooked that transport disadvantage can also be found in inner areas of Australian cities. A study conducted on behalf of the Ministry of Transport and the City of Sydney Council in the City of Sydney Council Area by (Battellino et al 2005a) identified pockets of transport disadvantage in inner Sydney in low income, Aboriginal and aged households. This study used data from the Sydney Household Travel Survey and the Census Journey to Work data to identify travel patterns by sectors of the community identified by age, gender, income and ethnicity. Discussions were also held with the members of the identified transport disadvantaged groups as well as with the Community Transport providers.

Although the inner city area of Sydney is well serviced by public transport, both bus and train services, transport disadvantage can still be experienced in such areas by the aged and those on low incomes. Transport disadvantage was defined in terms of lower trip rates and difficulty in accessing essential services such as shopping and medical services. It was found that low income and physical immobility can often prevent or hinder the access to mainstream public transport.

FUNDING OF TRANSPORT FOR TRANSPORT DISADVANTAGED IN NEW SOUTH WALES

Home and Community Care Funding

In NSW transport services for the transport disadvantaged, i.e. people who are unable, or who do not have access to mainstream public transport services, are provided by "community transport" which is provided by a range of government and non government agencies working in the health, aged, disability and community sectors. The main source of funding for these programs comes from federal government funding to the State in the form of Home and Community Care (HACC) funding for services for the aged and those with a disability. In NSW the transport component of this funding is administered by the NSW Ministry of Transport. The Ministry distributes this transport funding through the network of Community Transport organisations which operate in NSW. This means that in NSW, which is not the case in all other States, that a specialised and identifiable transport service, for at least this target group of transport disadvantaged persons, has been established. The Community Transport services aim to increase access to services and to increase participation in community life by providing access to recreation, shopping, education, medical care, social services and social contact.

The target group eligible to receive a HACC service are frail older people, people with disabilities, including children, and their carers. Within this overall population a number of special needs groups are also identified:

- Aboriginal and Torres Strait Islanders
- people from non-English speaking backgrounds
- people with dementia
- financially disadvantaged persons
- those in rural and remote areas.

An assessment is completed when people ask or are referred for HACC services. The people who are most in need are given priority of access to services.

NSW Community Transport Program (CTP)

A broader target population of transport disadvantaged can be provided with services through the NSW Community Transport Program (CTP) which is funded primarily by the NSW Government. It aims to address transport disadvantage at the local level by primarily facilitating efficient use of transport resources that exist within the community. CTP offers a wider range of transport assistance to the NSW community than HACC. All HACC clients would be eligible for funding under the CTP program. However, the CTP program is not restricted to the HACC population groups. It is aimed at people who are "transport disadvantaged". The "transport disadvantaged" target group is defined as people whose access to mainstream transport services is limited by physical, social or geographical factors. Transport disadvantage is a circumstance or set of circumstances, that leaves those who are affected by it in a situation where they have limited or no access to private transport and they have difficulty in gaining access to conventional transport systems. The following criteria are used to define people as being transport disadvantaged:

Mobility Criteria

- People whose physical health status renders them with a permanent mobility disability that leaves them unable to use conventional transport systems. This includes the frail elderly, younger people with disabilities and their carers.
- People whose physical health status renders them with a temporary mobility disability that leaves them unable to use conventional transport systems.
- People who are socially isolated due to diagnosed mental illness, behaviour difficulties and delayed development.

Isolation Criteria

- People who live in villages of less than 500 people that do not have access to conventional transport systems.
- People who need to access community facilities and resources, which are not available within the hours when conventional public transport operates.

Age Based Criteria

- Pre-school aged children travelling with an adult who experience problems in accessing conventional transport systems.
- Young people up to the age of 17 years who need to travel more than 1.6 km to community facilities and resources, which are not available within the hours when conventional public transport operates.

Organisations eligible to apply for and provide HACC Program services include local governments, community organisations, religious and charitable bodies, State Government agencies, health agencies and private (for profit) organisations. However, the great bulk of CTP clients are also older people eligible for HACC services and due to this crossover, there is often considerable resource sharing between funded programs, to the advantage of both. Duplication of administrative support, infrastructure and vehicles is avoided and both HACC transport and CTP transport are closely aligned and are largely provided through a locally based “Community Transport Project office”.

Area Assistance Scheme (AAS)

Project based transport services which would benefit a transport disadvantaged community can be funded through “The Area Assistance Scheme (AAS) which is a State-funded program administered by the [Communities Division, Department of Community Services \(DOCS\)](#). The AAS facilitates and supports community development and the integrated provision of services in regions undergoing rapid urban growth or change. It provides grants to local organisations for projects that improve community infrastructure and how communities function. The scheme focuses on areas that are experiencing significant social and economic stress and change. It currently operates in Western Sydney, Macarthur, Hunter, Central Coast, Illawarra and North Coast regions of New South Wales.

The scheme actively involves the community in developing and managing community projects to connect communities through partnerships, build community leadership and promote safe communities.” (NSW Ministry of Transport website) Transport projects are eligible for consideration under the AAS Transport pick-up Program.

CURRENT MODELS OF TRANSPORT FOR THE TRANSPORT DISADVANTAGED IN NSW

The Community Transport Projects – transport for the frail aged and younger people with disabilities.

The Community Transport projects, whose operating areas are roughly aligned with Local Government Areas throughout the State, are the main providers of transport services funded through HACC and CTP programs. Services provided can be either individual or group transport. Examples of HACC services are group transport for shopping for frail aged clients and group and individual medical trips. CTP funding may be used to assist isolated families with transport to regional centres, while other transport disadvantaged people may receive assistance to travel to playgroups, after school care, youth groups and senior citizens' centres. HACC provides the majority of funding to the Community Transport services (75% in 2005-06) followed by CTP (9%). The remainder comes from a range of other sources, such as other Government departments, particularly Health, and also local and community sources.

There are 127 Community Transport projects in NSW. According to the Community Transport Organisation’s Annual Report 2005-06, Community Transport projects in 2005-06 carried in excess of 92,000 passengers, making 1.5 million trips and travelling 20 million kms throughout NSW. The majority of trips were for medical reasons (28%) and for social and recreation outings (27%), followed by shopping (19%) and day care (19%).

A recent study of the Community Transport projects in the Sydney Metropolitan Region (Battellino et al 2005b) which compiled data on the activities of all Community Transport projects in Sydney provides the following profile of the Community Transport projects operating in Sydney:

- Community Transport projects in the Sydney Metropolitan region provided over 450,000 trips in 2004. (A “trip” is a one way trip, so that if a client is taken shopping that represents 2 trips – one from home to the shops and the return trip from the shops to home.) Using the Sydney Household Travel Survey data for the total number of trips by over 65 year olds for shopping, medical and personal business (TPDC 2005), it is estimated that Community Transport represents around 4% of these trips for over 65 year olds.
- Peaks in travel appear in March and in November, with the lowest period of demand being over the December – January holiday period when many Community Transport projects either are closed or reduce the trips offered.
- There is a significant variation in the size of the operations of the Community Transport projects in terms of trips provided, ranging from over 90,000 trips per annum to 3,000 - 4,000 trips a year with many groups providing around 20,000 trips per annum. The number of trips is a reflection of a number of factors including the population of the target client group in the Community Transport project’s catchment area, the availability of other mainstream public transport which is accessible to clients, the number of clients who are registered with the Community Transport project and the resources of the project to provide transport.
- The main modes used by the Community Transport projects are buses and cars owned by the project, volunteers’ cars and for some projects buses are brokered from other community organisations or Local Councils. Taxis tend to be used in emergencies or for after hours transport. Overall, project owned buses provide 61% of trips and project owned cars provide 22% of trips.
- Shopping and social outings are important trip purposes, representing 23% and 24% of all trips respectively, but medical trips in total (GP/Specialist and Hospital/medical) make up the majority (25%) of trips.
- Overall there is a reasonably even spread of trips across the working week with Monday being a bit less busy and Thursday being the busiest day, especially for shopping trips. The Community Transport projects attempt to maximise the use of their vehicles by spreading the trips offered across the days of the week.
- There is a big morning peak between 8 am and 10 am for the start of trips. Shopping trips are usually of one and half to two hours in duration and often two shopping trip pick ups occur in an area on the shopping day, for example one at 9 am and one at 12 am. Medical trips can start at any time of the day and account for most trips after midday.
- For those trips for which demographic data was available (approximately 250,000 trips) 79% were made by females and 21% were made by males highlighting the fact that women are the main users of Community Transport services. Of the trip records for which age data was available, not surprisingly the majority of clients are over 60 years of age with 30% being between 71 and 80 years and 40% being between 81 and 90 years. The younger clients are clients with a disability who also fall within the HACC target group. Co-ordinators reported that the age demographic had moved into the older frail aged groups, compared with 10 years ago when most clients would have been in the “younger aged groups”. This shift to servicing older clients with increased frailty had important implications for the nature of service that has to be provided for a highly dependent client group.

Other “community transport” providers

Transport for the aged and people with disabilities is also provided by a range of other organisations working in these sectors. For example many disability services manage to find funds to purchase their own minibuses to transport clients to and from an activity centre. It is also common for aged housing facilities such as retirement villages to provide their own vehicle which is used for shopping trips and outings for the residents. Local Councils also often have vehicles which can be hired by community groups.

The result has been a proliferation of small vehicles in the community and often duplication of services and inefficiency of vehicle use, in that vehicles are often only used for particular runs or services and are often not used at other times. Organisations and co-ordinators, for whom their core area of expertise is not transport, find themselves being responsible for transport services and fleet management issues, for example vehicles which become unsuitable for the changing needs of the service compared with when they were purchased. In the longer run it often becomes too expensive for community or disability services, which are not specifically funded to provide transport services, to maintain and operate the vehicles.

This is a common problem experienced in other countries in the area of “community transport”. For example in the US research has been undertaken which demonstrates the efficiencies and economic benefits to be achieved by co-ordination of vehicle use (TCRP 2004). The NSW Ministry of Transport has attempted to partially address this issue for the community transport services by introducing a “spare seat capacity” policy to reduce these inefficiencies for HACC funded services (NSW Ministry of Transport, website).

The Community Development Model - the NSW Ministry of Transport

The NSW Ministry of Transport has strengthened its approach to providing transport for the transport disadvantaged by the establishment of the Local and Community Transport (LACT) Branch which “was established to improve transport options for the transport disadvantaged through ensuring greater coordination, cooperation and flexible use of resources amongst local transport providers and government agencies” (Ministry of Transport, 2005-06). As well as administering the funding for the community transport programs, as above, the LACT manages a network of regional transport coordinators, with a focus on developing transport solutions for the transport disadvantaged. There are 11 regional co-ordinators in non-metropolitan areas of NSW and an additional two workers in metropolitan Sydney.

To specifically address the transport needs of the Aboriginal community an Aboriginal Project & Liaison Officer, who has a State wide focus, has been appointed as well as three Aboriginal Transport Workers who work with the Community Transport projects in areas around the North Coast of NSW where there is a large population of Aboriginal people. These workers themselves all belong to the Aboriginal community and are therefore able to work very well with the local communities in helping to find transport solutions specific to the needs of these communities.

The role of the Local and Community Transport Branch of the Ministry of Transport is to:

- Promote collaborative relationships between key stakeholders
- Establish transport working groups and/or engage in established transport forums
- Support projects aimed at reducing transport disadvantage in rural regional NSW.
- Getting better value and more tailored services from the transport infrastructure already in place

- Enhanced transport brokerage using existing resources
- Improving links between transport providers and transport users

This approach is essentially a community development model of providing transport for the transport disadvantaged in local communities which by reaching out to the broader community goes beyond the work that can be done by the HACC funded services which are restricted by eligibility criteria. This approach is similar to the Victorian Transport Connections Program.

A variety of projects have been implemented throughout the State over the past 2 years. There have been approximately 120 trial projects in 2004-05 and 124 in 2005-06 which have included:

- Bus services: largely contracted from commercial and non-commercial operators in regional NSW
- Carpooling schemes: making best possible use out of existing resources
- Taxi Discount/Voucher Schemes
- Driver licence programs for transport disadvantaged

Mainstream transport providers – commercial bus contracts

Bus services in NSW are provided by both private companies and a government owned operator through performance-based contracts administered under a “trusting partnership” arrangement, with the State Government. A process of reform of this contract system has been underway following a major review of the Bus Industry in NSW in 2004 (Unsworth 2004). New contracts have been negotiated and signed in the metropolitan and urban fringe regions and reform in the rural and regional areas is in progress. Under the metropolitan contracts the bus operators, both public and private as all are subject to the same contract arrangements, are paid on a per kilometer basis for providing services. There are a number of components to this payment for example to cover capital costs, operating costs and a passenger incentive (for details see the example Metropolitan bus contract, Ministry of Transport website).

The route networks in the defined contract areas are also being redesigned according to new Service Planning Guidelines (Ministry of Transport, June 2006). In summary the guidelines aim to provide more direct, frequent services linking regional centres, which primarily provide better services mainly for commuters. Over the years route network design in Sydney in some places has become circuitous and indirect in an attempt to service more of the community. However in doing so some markets, especially the commuting market, has declined. Routes are therefore being designed to better meet the needs of this market and essentially are designed for people who can walk 400 metres to the bus stop. The network redesign has been undertaken with a considerable amount of community consultation, but it is clear that some sectors of the population have lost services and are disadvantaged by the changes. The operator in at least one of the new network areas, reports considerable community dissatisfaction by some sections of the community with the loss of service under these new networks. It is quite common for these disenfranchised passengers to be referred to the Community Transport projects if they can no longer access the mainstream services.

As part of the contract tender process the operators are able to bid for “community kms” which it was thought would be used to provide services for those sectors of the community who are not able to access the revised route services. For example, services which would service the aged, the youth and transport disadvantaged communities. It was also anticipated that these “community km” payments could be used to provide more innovative service

solutions such as brokerage of buses within the community, co-operative arrangements between the mainstream bus operators and the Community Transport projects, or flexible or demand responsive services. However it would seem that this concept has not yet been implemented and no specific funding for it has been announced. Although all the Sydney metropolitan bus contracts have been signed and the redesign of the route networks has been completed in two of the 15 contract regions, there is still no evidence of commitment by the Ministry to “community kms”. Generally there is confusion in the industry as to how and when the industry might be able to implement services under this model.

Demand responsive or flexible bus services have been tried to a limited extent in NSW, but could not be said to have been widely implemented. A Community Transport project on the outskirts of Sydney has taken the initiative in attempting to develop a system of vehicle sharing and demand responsive services, which while showing great promise, still has some fundamentals in relation to the funding of services not fully resolved. Most large bus operators in Sydney support the concept of demand responsive services and in working with the Community Transport projects, but a source of funding has to be found for these services.

DEMAND FOR TRANSPORT FOR THE TRANSPORT DISADVANTAGED

Research in Australia and overseas has identified that some sections of the community are more likely to be transport disadvantaged than others. For example, it is widely recognized that the aged, youth, those with a disability, low income households and ethnic communities are often transport disadvantaged as factors such as impaired physical mobility, low income, geographic isolation and other cultural factors may impede their access to mainstream public transport services.

Establishing the numbers of people who are transport disadvantaged using conventional transport demand study techniques, so that supply of services can be provided to meet that demand, requires a large and expensive study. Such research is conducted in the US (TRB 2004, TRB 2007) but it is hard to envisage that it would receive the level of funding required in NSW. Perhaps it is that pursuing this large scale exercise is not the right approach as it should be emphasized that just establishing and identifying the existence of any of the factors considered to indicate transport disadvantaged does not in itself represent a measure of the extent of disadvantage. “The evaluation of disadvantage status should take into account the degree and number of these factors that apply to an individual. The greater the degree and the more factors that apply the more disadvantaged an individual group can be considered (Litman 2005). This level of analysis implies the need for disaggregate local area studies.

However, an understanding of the aggregate numbers and growth rates in those communities can be used to provide some indication of the extent of the transport disadvantage demand to be addressed. As examples we will briefly consider the aged population and the population of people with disabilities in NSW.

The aged

Providing transport for the growing aged sector of the population is fast becoming a significant issue for governments. As for Australia as a whole, the population of NSW is ageing and this trend is expected to continue. By 2016, the older population (people aged 65 years and over) is expected to outnumber the younger population (people aged 0-14 years) for the first time in the history of NSW. In 2003, there were 889,500 older people in NSW, 13% of the State's population. Reflecting the longer life expectancy of women, there were more older women

(495,100) than men (394,400), and this disparity increased with age. The older population in NSW is projected to increase to 20% of the population by 2023 (ABS 2004).

Although today's aged population are more likely to have drivers licences and to be able to continue driving for much longer than aged persons did previously, there will still come a time for most of us, because we are all living longer, that we will no longer be able to drive and will need to rely on some form of "public transport". Mainstream public transport with its emphasis on effectiveness and efficiency is not likely to be able to provide that level of service appropriate for an aged population. As Hensher (2005) so eloquently puts it "the elderly may be less flexible, physically, but they demand more flexible public transport in terms of connectivity, frequency and visibility." They are used to living socially active and independent lifestyles something which has been made more possible by the private car and they will continue to expect, and indeed have the right to expect, to continue to maintain a high level of independence and social interaction for as long as they are physically able. A transport system that allows them to do this is essential not only for their personal, but also society's, well being.

In NSW, the Community Transport projects which provide the majority of specially designed services for the frail aged are not able to keep up with the growing demand for services. The demand for transport to health services for this population is growing at such a rate that it is consuming the bulk of the resources of the Community Transport projects so that transport for other social and recreational and shopping activities have to be curtailed. Transport for these purposes are just as important for maintaining personal health and well being as medical trips. In fact medical trips and the need for medical services can to some extent be prevented by having access to these types of activities to maintain a healthy lifestyle.

People with a disability

Although the HACC and CTP target groups cover younger people with disabilities (being defined as people under 65 years of age) and people of any age who are transport disadvantaged, in reality the primary users of the transport services provided through the Community Transport projects are the frail aged. In South Western Sydney, an area covered by seven Local Government Areas and three Community Transport Projects with a population of nearly 800,000, only 15% of the clients of those Community Transport projects were young people with a disability. A recent study of the transport needs of the younger people with disabilities in this area, sponsored by the Community Transport projects (Battellino et al 2007) found that the transport needs of the young people with disabilities market were indeed different to those of the frail aged and that the current services provided by the Community Transport projects did not meet those needs. As a consequence those people were often not able to participate in programs provided by the disability service organisations for respite and social and recreational activities. A significant area of demand for transport for young people with disabilities was at nights and on weekends as young people with disabilities want to participate in social and recreational activities at these times just as do all young people. Providing services at these times is outside the operating hours that are possible with the resources currently available to the Community Transport projects.

It is difficult from the available data to precisely measure the number of young people (under 65 years) who are socially excluded by transport due to a disability. In 2003 the number of people with a disability in NSW was 1.2 million which represented 18% of the population. Of these 733,000 (62%) were under 65 years of age and 456,000 (38%) were 65 years and over. Overall, of the total population, 13% of under 65 year olds had a disability and 53% of 65

year olds and over had a disability (ABS 2003), though this proportion varied greatly by age group as shown in Figure 1.

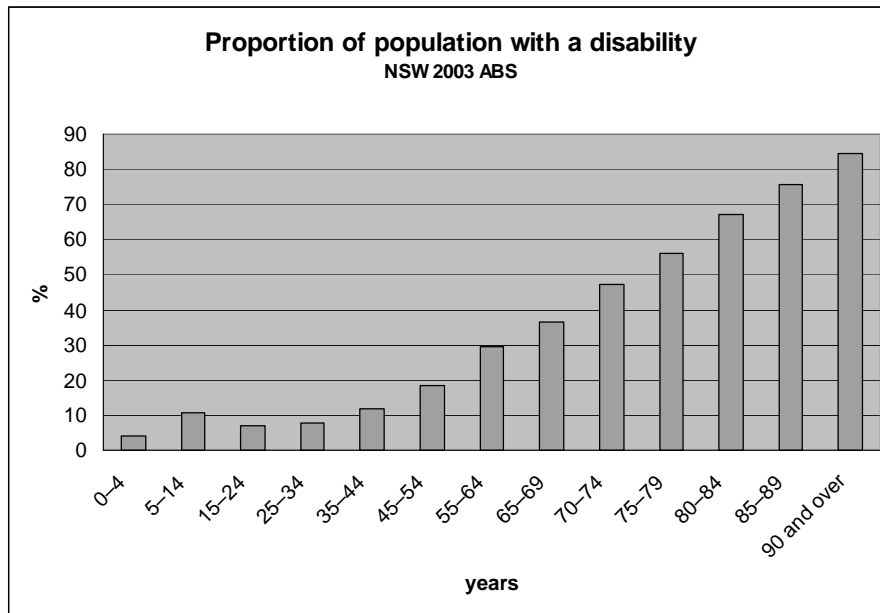


Figure 1

Source: Australian Bureau of Statistics (2003) Survey of Disability, Ageing and Carers. (Cat. No. 4430.0)

Despite their disability many of these people are in the labour force and actively involved in the community. In NSW, for people aged 15-64 years who report “specific limitations or restrictions” 45% (231,000) are in the labour force, that is employed full or part time or looking for work. Of the other 55% (277,000) who are not in the labour force, some of these will be involved in either supported activities or other special programs (ABS 2003). These figures indicate that over a quarter of a million young people with mobility difficulties require transport to work on most days in NSW and perhaps a similar number require transport to other activities at least on some days.

Most people with a disability report that they are able to use public transport, but 14% report that they cannot use any form of public transport and around 1% which is 8,000 people over 5 years of age with a disability report that they do not leave their home (ABS 2003).

Although the majority of people in the ABS survey reported that they can use public transport, in reality, the study in South Western Sydney found that most people with a disability still rely heavily on the private car and their family for their travel needs. This is because public transport services are not available or they encounter considerable difficulties actually using public transport. The main reasons reported for difficulty using public transport are getting to the stops or stations and getting in and out of vehicles. Other reasons include difficulty getting a seat, crowding, general fear and anxiety and pain and discomfort even when sitting. Hence for those people with a disability for whom access to a private car and someone to drive them is limited, they are socially excluded if they cannot access services.

HOW TO ADDRESS TRANSPORT DISADVANTAGE

The planning response

Unlike the UK, NSW could not be said to have embraced the concept of accessibility planning. Decades of metropolitan plans still confuse accessibility with proximity with their emphasis on decentralization and distribution of services geographically throughout the urban area (Stone 1996). This approach is based on the assumption that bringing services closer to the people will make them more accessible. As public transport systems have not been designed to provide access to these decentralised locations, this policy has in fact led to greater dependence on the private car, and a loss of accessibility for those who do not have such ready access to a car. As a result “Sydney shows greater concentration of socio-economically disadvantaged households in areas not well serviced by public transport routes” (Gleeson & Randolph 2002). The current reform of the bus industry throughout NSW is in part addressing this issue in aiming to improve connectivity of regional centres. However in streamlining services it is actually resulting in the disenfranchising to an even greater extent the transport disadvantaged population, without it seems, strategies to address this.

Accessibility planning does not involve just the analysis of the proximity of services to the population, but detailed analysis of the opportunities for people to access services by modes available to them and within the context of their mobility capability. The community development model of providing transport for the transport disadvantaged goes some way to achieving this. But there is no evidence that transport accessibility through the planning process and location of activities in the first place is taking this into account. The current Sydney Metropolitan strategy, which is the blueprint for planning Sydney over the next 20 years, has been widely criticised as not having a complimentary transport plan designed to support accessibility to the pattern of development proposed.

The transport response

This paper has outlined the main models used in NSW to provide transport for the transport disadvantaged. Examples of similar models can be found in other States of Australia and overseas. Governments are continuously grappling with the problem of allocating limited budgetary resources to projects, so it is reasonable to expect that the question would be asked as to which is the most effective means of using resources to meet the transport needs of those who are considered to be transport disadvantaged. How can these models be evaluated both in terms of budgetary and social effectiveness?

Perhaps before trying to address this question, we should first consider what are the goals of a transport system. Stanley (Stanley et al. 2005) outlines the strategic goals of an urban transport system as having economic, environmental, social and governance objectives. As it is the social goal which is the focus of this paper (workshop), I will concentrate on that aspect. Stanley defines the social goal as (to) “improve the safety of the transport system and ensure that a decent basic mobility level is available to all (sometimes called an equity goal), particularly those groups of people who have few mobility choices and are therefore at risk of social exclusion.” However, how to define and measure this goal is not that clear or easy. As Stanley points out “A value perspective on the need for the basic levels of mobility to be available to all (a part of the social goal) does not take one far in terms of defining more clearly just what levels of mobility are required for particular circumstances.”

Quite rightly when considering the articulation of this goal, and hence the move towards a policy response, questions are raised such as “What are the benefits to individuals and society of good mobility? Should there be some basic minimum irrespective of location or should remote regional areas be treated differently to regional cities and to the outer urban fringes? How can you determine what a basic level of mobility ought to be for different groups? Does it differ according to the circumstances of the person (e.g. age, disability, income, or some other factor)?

There are a number of measures of mobility and accessibility which are widely used to indicate transport disadvantage and the use of geographical information systems (GIS) has made more accurate analysis and graphic presentation of these measures possible. For example these include:

- Household car ownership/number of vehicles per head of driving aged population
- the proportion of the population who live within 400 metres of a bus route or 1 km of a train station
- the proportion of the population who can access medical services/employment/shopping centres within an hour’s traveling time
- trip numbers by different segments of the population e.g. the transport disadvantaged may make less trips
- trip lengths by different segments of the population e.g. the transport disadvantaged may make shorter trips

But how useful are they in providing a measure of transport disadvantage and what is an acceptable level of access? For example in NSW an ABS survey found that 1% of people with a disability do not leave their homes, that is nearly 8,000 people. Is that acceptable? Community Transport Project Co-ordinators in Sydney report that there are elderly people who do not leave their homes apart from using the Community Transport services to go shopping. How many more people are in this situation but do not have access to any services?

Leaving aside the demand side for the moment, and turning to the options for the supply of services for this market, how would each of these approaches be evaluated to determine the most effective method of service delivery? Large scale transport infrastructure projects are evaluated using cost benefit analysis with the costs of construction on one side to be balanced, or exceeded by, the benefits to the community, which are mainly calculated in the form of travel time savings, on the other side. Transport services are also generally evaluated according to cost and revenue criteria such as cost per passenger kilometer or cost per revenue kilometer which compare the operating costs with the level of service provided (route kilometers) and service used (passenger kilometers). How useful are these approaches for determining the level of service provision for the transport disadvantaged?

On the cost side, measurement is relatively straight forwarded as sources and levels of government funding to provide community transport can be determined. However benefits cannot be measured in terms of value of travel time savings. This is a measure which is relevant only to those in the paid workforce. The value of time when measured in this way based on wage rates, for those who are commonly thought to be transport disadvantaged, is low, but the social and personal well being benefits are great. As Stanley (2005) says “There is simply no comparison between a transport initiative that saves a few minutes traveling time for someone who already has a well developed social network and wide life opportunities and an initiative that opens up networks of opportunity for someone who is socially excluded”. An alternative, more appropriate, approach may lie in the work by the Victorian Department for Communities (June 2006) in developing indicators of community strength which aim to

measure the strength of the community as a result of participation by individuals in a range of activities.

Even in solely economic terms the participation in the community by people who are transport disadvantaged could be measured in terms of lower medical expenses and lower social service expenses for the community as a whole. Even if these savings were spent on additional transport services it would generate the additional (but difficult to quantify) benefits of increased personal wellbeing for individuals. For example the cost of an aged person not being able to access goods and services might include higher medical costs if minor illnesses go untreated and because they can't access proper food and medical services and their health deteriorates exacerbated by isolation, loneliness and depression. There might also be a loss of potential contribution to the community through activities forgone such as voluntary work and other community participation (Department for Victorian Communities, 2006) and employment opportunities lost. A UK study on bus use and social exclusion (L.E.K. Consulting, 2002) found that the main purpose for suppressed trips amongst transport excluded respondents was for food shopping followed by shopping for non food items. It was also found that twelve per cent of the respondents had declined offers of employment due to lack of suitable transport.

Evaluation of transport options for providing services for the transport disadvantaged is a significant issue to be addressed. It is understood that it is the subject of research in Australia by the Institute of Transport and Logistics Studies at Monash University. Overseas research is also exploring a range of techniques to shed light on this issue. For example, in the US research using Cost Effectiveness Analysis (CEA) has been used to undertake cost benefit analysis of providing non emergency medical transport for the transport disadvantaged. This research found that 3.6 million Americans miss out on health care because they do not have access and that the net health care benefits of increased access to medical care for the transportation disadvantaged exceed the additional costs of transport for all the health conditions examined (TRCP 2006). This paper cannot attempt to undertake the analysis required to develop a quantifiable approach for evaluating models of transport provision for the transport disadvantaged, but it offers a qualitative assessment of the issues involved for those approaches being pursued in NSW.

COMPARISON OF MODELS IN NSW

The Community Transport Projects

The Community Transport projects which are funded primarily through HACC can only provide services to an eligible target group i.e. frail aged (> 65 years) and younger people (< 65 years) with a disability. In 2005-06 \$34 million was paid by the Ministry of Transport to the Community Transport projects (Ministry of Transport, 2005-06). Data from the Community Transport Organisation 2005-06 Annual Report indicates that 1.5 million trips and 20 million kilometers of travel were provided that year throughout the State by the Community transport projects. This data could be used to provide a rough estimate of the cost of providing services through the Community Transport projects of an average of \$22 per trip and \$1.70 per km. However, it should be emphasised that this is only a ball park estimate as more accurate data would need to be used. It would be possible to collect detailed data on costs and service levels and thus undertake evaluation of the value of service being provided under this funding model. The Community Transport projects collect data on the services that they provide, but currently are only required to make very limited reports to Government.

Community Transport provides a caring, specialized service designed to meet the needs of the aged clients and those with disabilities. Staff are trained to provide a service which is considerate to the needs of the client base. The main response that is usually forthcoming from clients when asked about Community Transport services is “the bus drivers are wonderful” (recent consultations in South Western Sydney). Vehicles are also used which are appropriate to the needs of the elderly and those with a disability with low floor minibuses which are usually wheelchair accessible. The social and community nature of the service is also greatly appreciated by the clients. Regular clients get to know each other and look out for each other. The bus becomes their community (consultations Sydney Community Transport).

On the other hand, Community Transport for the most part only offers fairly limited and inflexible services, e.g. regular shopping trips and set days for social outings. Transport for medical appointments is also provided on an individual and group basis and in most areas the demand for medical services is growing at such a rate that it is using up a large part of the Community Transport project’s budget. Demand is generally reported to exceed supply so that some clients miss out and clients can only have limited access to services such as shopping every fortnight and some services are not able to provide transport for ongoing medical treatments such as chemotherapy or dialysis.

There is considerable variation between areas in the amount of service offered, which can be related to local need, but often reflects the skill, enthusiasm and innovation of the Project Co-ordinator. People who work in Community Transport are specialized in providing transport and in caring for the elderly and disabled client base. However the level of transport expertise and the level of project management and business ability varies between projects. This raises equity considerations as some people have better access to services than others.

Community Transport is not recognised under the NSW 1990 Passenger Transport Act and is not subject to the same regulations and accreditation standards as mainstream public transport. A review of the regulatory framework for Community Transport and Courtesy Transport Services was undertaken in 2001-02 by the NSW Government (Transport NSW 2002) however agreement on, or implementation of, a new framework has not yet been reached.

Funding for Community Transport, as has been noted, comes from HACC. HACC and DADHC also provide funding for a range of services and activities for the aged and people with disabilities. But there is no direct link between the funding for activities e.g. day care facilities or respite care for the disabled, and the transport that is required to get clients to those services to be able to take advantage of them. The lack of a direct link between funding for activities and the transport arrangements often means that people are unable to access services. It is apparent that the demand on Community Transport is greater than the funding available so that in many cases the disability or aged care service seeks out other sources of funding from within the community and purchases their own transport. As they do not have any expertise in transport management, problems soon arise with ongoing funding, maintenance and management of vehicles. Vehicles are often underutilized as they have only been purchased for one particular function while other groups in the community go without transport while some vehicles lie idle. Vehicle or fleet maintenance and keeping vehicles up to date and appropriate for the needs of the client group also become problems. This results in duplication and wastage of transport resources in the community.

The Community Transport projects in NSW provide a structure and a business model for the delivery of transport services for the frail aged and those with disabilities. The service which they provide is appropriate to this client base. It is also possible to obtain data and develop measures for evaluation of the cost and level of service delivery (for example see Battellino

and Hensher, 1995). However problems still exist in relation to the consistency of the service quality and level of service provided. These issues could be addressed through establishment of accreditation and operation standards across the industry. Community Transport, in its current form only provides transport for a limited segment of the transport disadvantaged group, but with implementation of appropriate standard operating and business practices has the potential to service this market in a socially and cost effective manner.

The Community Development Model

In NSW this model is funded through the Ministry of Transport and implemented using Regional Transport Co-ordinators (RTCs) across the State. This model identifies and addresses local community transport needs with targeted projects.

The RTCs are charged with the responsibility of establishing a Regional Transport Working Group made up of local transport operators and representatives from other community groups. There is funding, albeit small relative to the HACC funding, to support projects which address specific local problems. Funding of the order of \$1 million in 2005-06 was available (Ministry of Transport, 2005-06).

A significant strength of this approach is that the community is involved in identifying the transport needs and working together to find solutions. The approach can bring together all transport operators (buses, taxis, Community Transport, other community vehicle owners) as well as community representatives of users. The solutions can be varied such as new bus services, changes in timetables, providing information, new (small) infrastructure, arrangements with taxi operators or any other initiative which may address an identified transport problem. Thus there is community ownership, responsibility and pride in the solution, which increases the likelihood that the service, or other initiative, will be patronized or used by the community and those for whom the project money was intended, gain the benefits. Often significant achievements can be made for small amounts of funding if they are well targeted and the project is well planned and implemented. The approach allows a wide range of flexible options which is particularly important especially in small communities where the market is not large enough to warrant a regular transport service.

The seed funding for individual projects is often quite small and priority is given to projects which are designed to be self sustaining. Some projects bring obvious sustainable outcomes for the community such as the driver licensing programs for Aboriginal communities where the attainment of a driver's licence brings access to employment and other social and community activities benefiting both the individual and the wider community. However the ongoing sustainability of projects can depend on the goodwill or ongoing work by local operators, the Local Council or other community members and often this is difficult to maintain after the first pilot stage of the project.

Having pilot project status can also make it difficult to gain support for projects and often there is not the time to build the project to a sustainable level in the initial period. Projects which are short lived bring only short term benefits to the community. But worse, they often bring the sense that the community is not worth investing in for the longer term and the community can become disillusioned and unwilling to support other initiatives.

The type of projects, and the benefits they bring, also depends largely on the expertise and enthusiasm of the local worker and the co-operation and goodwill which they can build in the local community. Once again this raises equity issues as some areas will benefit more than

others if they have a particularly skilled and energetic worker and/or local community champions.

As there is limited funding for these projects there is a need for some basis of assessment of proposed projects and their application for funding. To preserve equity of access to funding, it might be expected that a consistent, comparable process for establishing need would be implemented across the State. However this does not seem to have happened and to some extent projects may gain support because some RTCs and local communities are more skilled in mounting cases than others. The ability to establish a consistent framework for need brings us back to the questions raised earlier as to how to measure and determine the extent of transport disadvantage in an area and how can that be compared with other areas. There appears to have been little development or application of practical research of this nature as an underlying basis for this model. This most likely reflects the very low funding base that is provided for this approach, all of which needs to be used on projects rather on the research to establish need for projects.

This also leads to another apparent weakness of this model in that there has been very little in the way of evaluation of these projects in NSW. As with the determination of need, this in part reflects the lack of funding available for the evaluation of projects. The small amount of funding needs to be used by the project and it would be difficult to convince needy communities that a significant proportion of that should be allocated to project evaluation. However, it is also very difficult to evaluate these projects. In some cases these types of projects lend themselves to the collection of data on service delivery, for example if a new bus service is negotiated or a taxi voucher scheme is introduced, the level of patronage and benefits, at least in terms of consumption of trips, can be determined. However that is not always the case, in that the nature of the project may not be conducive to the collection of data and measurement in a quantifiable manner, therefore bringing us back to the question raised earlier of how to value the benefits of providing transport for the transport disadvantaged. For example how is the value of a driver's licence training program for Aboriginals to be valued?

In Victoria more progress has been made in establishing an evaluation approach to the Transport Connections Program. The Victorian Transport Connections Program (June 2006) reports on the evaluation of the program at mid term. Its main finding is that the "pilot projects have achieved significant gains in assisting communities in their response to transport disadvantage". There is however little documentation or reporting on how this finding was determined. Some of the tangible outcomes of the pilot projects are reported as:

- "development of 39 new transport services and 22 transport information brochures,
- development of transport and access plans for 44 different towns and communities, and
- establishment of over 63 partnerships and working groups."

These measurements however report on the number of outcomes but not the impact or benefits derived from them. However Victoria is committed to this model with the expansion of funding for the project to \$18m over the next 4 years, which is significantly greater than the funding program foreseen in NSW.

The community development model provides a flexible approach to finding solutions for the transport needs of communities and projects can be targeted at all, or any segments, of the transport disadvantaged population. Its benefits are in terms of the ability to bring the community together to develop suitable local solutions which have community ownership.

There are however problems in some cases of maintaining the sustainability of projects. Other challenges are in finding a consistent approach for determining the need, and hence the allocation of project funding, and developing appropriate processes of evaluation as these types of projects do not always readily lend themselves to quantifiable evaluation.

Mainstream Transport Providers - bus contracts “community kms”

As noted above this model has not been implemented as yet in NSW. There is apparent confusion in the industry and the community sector as to exactly what is intended by the Government in including this concept in the contract reform process and there is no publicly available report or analysis of how such a model would work. However it is believed that it is a concept worth considering and therefore this discussion can only be based on the author’s understanding of the concept as derived from discussions with people in the industry and the community.

Bus contracts in NSW are not competitively tendered but are contracted to the incumbent operators at a total cost per kilometer rate which is tendered by the operator and then negotiated and agreed to by the Government. This rate covers all costs including operating costs, capital costs and a patronage incentive payment. Fares are set by the government and the operator keeps the fares with a balancing payment being paid by the Government. While it may be possible that some routes or services cover costs from the farebox revenue, overall the contract will require a payment from the Government to cover costs. The general understanding in the industry is that in the tender process a bid would also be made by the operator to provide “community kms” for services, which would be expected because of lower patronage, to run at an even lower fare box recovery rate. These services however would be services that would benefit the transport disadvantaged segments of the community such as off peak services, weekends, evenings or more circuitous suburban routes closer to people’s homes. There is also the expectation that these services could be provided in more innovative ways such as in co-operation with the Community Transport projects or using other community vehicles and would also provide the opportunity to develop more flexible service delivery models such as demand responsive or flexible route services.

Using these “community kms” could take the form of a single agreement between a bus operator and a community organisation, or taken to a higher level to develop a system for the co-ordination of community vehicles in an area to maximize the use of available vehicle capacity. If coupled with a demand responsive system, such a system could maximize the service available to the people who need it the most.

As these services would be provided either by the bus company, or through an agreement between a bus company and other community organisation, the expertise of the bus company as a transport provider would be brought to the project and thus be beneficial in the efficiency of providing services. The bus operator would also have the expertise and resources to manage and maintain the vehicle fleet. On the other hand the expertise of the Community Transport or other community organisation in providing services for a transport disadvantaged market, particularly the elderly and those with disabilities, would also be beneficial for the services.

A number of large operators in Sydney have indicated that they are willing to work with, or are already working with, Community Transport organisations to better service the transport disadvantaged in their regions. As their vehicle fleet is generally geared to meet the peak commuting and school travel demand, they have surplus vehicles available in off peak times during the week and at weekends, which could be used for other services. As the Australian

Disability Discrimination Act requirements relating to accessible vehicles, progressively come into place, more vehicles owned by mainstream bus companies will be suitable for services for the elderly and people with a disability so it would be efficient to maximize their use.

The advantages of this model are that services could be available for all of the transport disadvantaged population in an area, they would not necessarily be targeted services available to only the aged or particular population groups. This approach would also be enhanced if it also embraced the principals of the community development model in working with the wider community to develop services as identified by the community. The cost of the services would be known by Government upfront through the tender process and the patronage or service level provided by the service could be monitored through data collected from the bus operators.

The bus contract model provides a framework for the development of a system of transport for the transport disadvantaged which could provide an efficient and equitable model of service. The bus operators are subjected to accreditation standards under the 1990 Passenger Transport Act and service standards could be monitored through the operating contract. But it does require adequate funding and regulatory support from Government.

CONCLUSION

Governments cannot avoid the social responsibility to provide transport for the transport disadvantaged. But it is reasonable to expect that this needs to be done in an efficient and accountable manner. The bringing together of the current Community Transport organisations' expertise in servicing their transport disadvantaged sector and the bus operator's expertise in bus fleet management could allow for the development of an appropriate system of transport for a wider transport disadvantaged market.

In smaller and remote communities the market for services may still be so small that more innovative and flexible solutions, not necessarily revolving around buses, may be needed. The "community development model" could be seen as having a role as a "gap filler" in providing transport for those smaller local transport needs which are still not met under such a system.

However funding is required to support all approaches to providing transport solutions for the transport disadvantaged. Funding is dependent on the recognition of the extent of the issue of transport disadvantage and the benefits to the community of providing transport services to this segment of the population. As well as meeting social obligations, governments also need to know that funding is being used in efficient and effective ways. Research to establish the extent of need for transport for the transport disadvantage and to establish the wider benefits of reducing the social exclusion of the transport disadvantaged as a result of the increased level of transport service, may assist in securing the levels of funding needed to have an impact on this issue. It is also recommended that research into the methods of evaluation of services and establishment of an ongoing system of evaluation and monitoring is also required.

ACKNOWLEDGEMENTS

The author would like to acknowledge the support of the NSW Ministry of Transport and the South West Community Transport service in allowing the references to the studies undertaken on their behalf and for making other internal information available. The views expressed in

this paper are entirely the views of the author and do not reflect the views of the NSW Government or South West Community Transport.

REFERENCES

- Alsnih, R. & Hensher, D. A (2005) Travel Behaviour of Seniors in an Aging Population: An Explanatory Study of Trip Chains and Modal Preferences in the Greater Metropolitan Area of Sydney, Working Paper ITLS-WP-05-17, Institute of Transport and Logistics Studies, The University of Sydney, September 2005
- Australian Bureau of Statistics (2003) Survey of Disability, Ageing and Carers, Cat. No. 4430.0.
- Australian Bureau of Statistics (2004) Older people – New South Wales, Cat. No. 4108.1, 17 September 2004
- Battellino, H. & Hensher D.A. (1995) The Transport Disadvantaged – Community Transport or Mainstream? *Transportation Planning and Technology*, 1995, 19, pp73-87.
- Battellino, H., Gellie, J. & Sayers, P (2005b) Sydney Metropolitan Bus Contracts Transport Disadvantage Information Project, unpublished consultants report (extract used with permission), NSW Ministry of Transport, October 2005
- Battellino, H., Newman, J. & Sayers, P (2005a) City of Sydney Analysis of Transport Disadvantage, unpublished consultants report, NSW Ministry of Transport & The City of Sydney Council, August 2005
- Battellino, H., Gee, J. & Sayers, P. (2007) Young People with a Disability Transport Needs Project, prepared for South West Community Transport, May 2007
- Community Transport Organisation 2005-06 Annual Report
<http://ww.communitytransport.org.au>
- Currie, G. et al. (2005) Rural and Regional Young People and Transport – Improving Access to Transport for Young People in Rural and Regional Australia. Youth Affairs Research program IUSBN 0 97524985 1 January, 2005.
- Currie, G. (2007) An International Perspective, Key note presentation at Closing the Gaps Local and Community Transport Conference, Brisbane Queensland, Australia, May 2007
- Department for Victorian Communities (2006) Indicators of Community Strength; a framework and evidence, Strategic Policy and Research, Victorian Department for Communities, June 2006
- Dodson, J. Gleeson, B. & Snipe, N. (2004) Transport Disadvantage and Social Status : a review of literature and methods, Research Monograph No. 5 Urban Research Program Griffith University, Brisbane.
- Gleeson, B. and Randolph, B. (2002) Social disadvantage and planning in the Sydney context, *Urban Policy and Research*, 20 (1), 101-107
- Hensher, D. A. (2005) Looking Forward: What Comes next in Competition and Ownership of Land Passenger Transport?, Keynote Address for the 9th International Conference on Competition and Ownership of Land Passenger Transport, Lisbon Portugal, September, 2005.

- Hurni, A. (2006) Transport and Social exclusion in Western Sydney, A Partnership Research Project, University of Western Sydney and Western Sydney Community Forum, October 2006.
- L.E.K. Consulting (2002), UK Bus Priorities Transport Social Exclusion, Final Report, London, 7 January 2002
- Litman, T. (2005) Evaluating Transportation Equity, Methods for Incorporating Distributional Impacts Into Transport Planning, Victorian Transport Policy Institute, Canada, March 2005
- Stone, C. (1996) Accessibility and Social Equity, paper prepared for the Transport Policy Workshop, Institute of Transport Studies, October, 1996
- NSW Ministry of Transport website <http://www.transport.nsw.gov.au/lact>
- NSW Ministry of Transport (2005-06) Annual Report 2005-06
- Randolph, B. & Holloway, D. (2003) Shifting Suburbs: Population Structure and Change in Greater Western Sydney (May 2003) Western Sydney Regional Organisation of Councils (WSROC) www.wsroc.com.au
- Social Exclusion Unit (2003) making the Connections: Final report on Transport and Social Exclusion, Office of the Deputy Prime Minister, UK, February 2003
- Stanley, Janet, Stanley, John, Lucas, S. (2005) Designing Public Transport to Foster Patronage and Social Inclusion, 9th Conference on Competition and Ownership in Land Transport, Lisbon Portugal, September, 2005.
- TDC (2005), Sydney Household Travel Survey pooled data 5 years to 2005, special data request, Transport Data Centre, NSW Ministry of Transport, June 2006.
- Transit Cooperative Research Program (2004), Strategies to Increase Coordination of Transport Services for the Transport Disadvantaged, TCRP Report 105, Transport Research Board, Washington D.C. 2004
- Transit Cooperative Research Program (2006), Cost Benefit Analysis of Providing Non-Emergency Medical Transportation, Research Results Digest 75, TCRP Project B-27, Transport Research Board, Washington D.C. 2006
- Transport Connections Program (2006) Overview of Transport Connections initiatives – summary of 04/05 annual reports, Victorian Government Department of Human Services, Melbourne, Victoria, June 2006
- Transport NSW (2002), Review of the Regulatory Framework For Community and Courtesy Transport Services in NSW, Report May 2002
- Transport Research Board (2004) Demand Forecasting and the Americans with Disabilities Act, Orange County, California, Transportation Authority's Access Program, TRB Transport Research Record, Vol. 1884/2004.
- Transport Research Board (2007) Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation, TCRP B-36 Request for Proposals 13/4/2007
- Unsworth, B. (2004) Review of Bus Services in New South Wales, NSW Government February 2004.