

MAXIMISING THE COMMUNITY BENEFITS OF RURAL AND REGIONAL BUSES



This Information Paper discusses the community benefits of rural and regional bus services in NSW. It also outlines how the final decisions and recommendations we made in our Final Report seek to maximise those benefits.

The benefits of rural and regional bus services to the community include the ability to access school, employment, and services (such as shops and health services), as well as access to social activities and entertainment by all individuals regardless of their age or mobility constraints. These benefits - described broadly as social inclusion benefits - are likely to be the main community benefits of rural and regional bus services.

In this Information Paper, we also discuss how providing consistent fares and information about bus travel across NSW could reduce barriers to bus use. These measures assist not only existing users but encourage new groups of users (such as tourists) to use the services, increasing the value for money provided by rural and regional buses.

Other benefits of rural and regional bus services result from avoided car use. These include avoided road congestion, air pollution and accident costs as well as health benefits from people using more active transport modes. In this Information Paper, we discuss why rural and regional buses are unlikely to have substantial congestion and pollution benefits, as well as measures that could increase these benefits such as electric buses.

Public transport provides access to education, employment and other services

Public transport is important in enabling low socio-economic or otherwise vulnerable groups to participate in society. This is particularly the case in rural and regional areas, where those without access to a car, or without the ability to drive, could be at risk of social exclusion or not being able to participate in society.¹ Older people, young people (especially those living in rural settings), people with a disability, carers, people with language difficulties, those on low incomes, and those with little or no car access are groups most at risk of social exclusion due to poor transport opportunities.² In its submission to the Issues Paper NCOSs noted its finding that 40% of people on low incomes had forgone travelling in order to cover other costs.³

The Orima survey undertaken for our review, found that rural and regional buses are used for a wide range of purposes including shopping, social and recreational activities, medical appointments and getting to and from education and employment.⁴

¹ Hensher, D, *Bus transport, Demand, economics, contracting and policy*, 2020, p 403.

² Currie, G, Delbosc, A, Transport disadvantage: a review. In: Currie, G (Ed.), *New Perspectives and Methods in Transport and Social Exclusion Research*, 2011, pp 15-25.

³ NCOSs submission to IPART Issues Paper, August 2020, p 4.

⁴ Orima Research, *Survey of rural and regional buses and on-demand transport services*, August 2020.

Unaffordable, unavailable or inaccessible public transport can prevent people from attending interviews, lead people to apply for jobs in a narrow geographical area, and potentially result in people turning down jobs. That is, it can act as a key barrier to employment and result in job seekers remaining unemployed longer than otherwise might be the case. This, in turn, prolongs the time job seekers spend receiving welfare benefits. Inaccessible transport, as a barrier to work, may contribute to higher benefit payments, and reduced tax contributions.

Lack of access to public transport can mean that people miss health appointments and/or delay seeking treatment – both of which can impose significant costs on the individual and the community. This could occur across the range of services from general practitioners through local hospitals to major hospitals, medical specialists and allied health services such as dentistry and optometry. The costs to the individual include poorer health through missed appointments, late diagnosis or healthcare simply not being sought. Costs to carers include having to stand by to drive around people in their care or accompany them to medical appointments and other essential services where public transport vehicles are inaccessible. ‘For carers who are often time poor, this may impact on their ability to maintain their own health and wellbeing or participate in education or employment’.⁵ Costs borne by the community include wasted resources through missed appointments and delayed discharge from hospital, additional home visits and delayed treatment of illness in place of early intervention.

It can also make it difficult for people to access reasonably priced food shops and supermarkets. This can result in poor dietary habits leading to poor health. Participation in social, cultural, leisure and sporting activities is very important to people’s quality of life and can play a major part in improving health, reducing crime and building cohesive communities. Finally, it is important for people to be able to access welfare and related services (including Centrelink, aged and other residential care, and police services).

Public transport enables greater participation in society which benefits both the individual and society. For example, public transport enables individuals to access and build social capital, thus gaining a sense of satisfaction, positive emotions and mental health. Transport also enables access to education, health services and employment. This ultimately benefits society by improving educational and health outcomes, reducing levels of unemployment, the need for welfare support and health services and ultimately improving productivity.

⁵ Carers NSW, submission to IPART Draft Report, November 2020, p 4.

The NSW Government recognises the value of transport in regional NSW in its Future Transport 2056 strategy. Box 1 provides more information.

Box 1 Role of transport – access and social well-being

The role of transport in ensuring access and social well-being in regional NSW is important for:

- ▼ Maximising the potential for regional areas now and in the future
- ▼ Addressing the needs of a dispersed population
- ▼ Addressing the needs of customers in remote areas who are more likely to be socially isolated
- ▼ Providing safe transport for customers from different socio-economic backgrounds that may face different levels of disadvantage
- ▼ Ensuring access to jobs, education, health care and other services
- ▼ Enabling the social well-being of regional communities.

Source: NSW Government, *Future Transport 2056 - Draft Regional NSW Services and Infrastructure Plan*, pp 26-27.

Recent research in Victoria aimed to provide a monetary value for how public transport can reduce the risk of social exclusion. Based on an analysis of transport and social exclusion risks in regional Victoria, the authors of this study estimated that the social inclusion benefits of a regional bus trip for low-income households is \$19.53 per passenger.⁶ In other words, if a regional bus service costs about \$120 an hour to provide, there would need to be approximately six passengers per hour to break-even in terms of the social inclusion benefits to the users. It is likely that bus passengers would only contribute a small proportion of the financial costs of the bus service. However, the authors note that the bus service presents 'significant social value, to both users at risk of exclusion and the wider society in terms of savings in flow-on costs, such as crime, unemployment, adverse health outcomes, etc.'⁷

Maximising the benefits of buses means focusing on the affordability, availability and accessibility of these services

The community benefits of rural and regional bus services depend on the services being affordable, available and accessible for people with limited transport options. However, improvements in these come at a cost. Maximising the benefits to society involves weighing up the social inclusion benefits of services against their cost to taxpayers. In the Final Report, we discuss the recommendations we have made around maximum fares and outline our views on extending the availability of concession fares. Further, we explore the role of on-demand services. Below we consider how these recommendations maximise the benefits of public transport use to the community.

⁶ The authors quote \$18.50 in 2016. This number has been updated for inflation. Hensher, D, *Bus transport, Demand, economics, contracting and policy*, 2020, p 413.

⁷ Hensher, D, *Bus transport, Demand, economics, contracting and policy*, 2020, p 413.

Improving the affordability of rural and regional bus fares should encourage more users

More affordable and closely targeted public transport should encourage greater use of bus services.

As part of our 2020 Opal Review, we commissioned a consultant – Cambridge Economic Policy Associates and the Hensher Group (CEPA/Hensher Group) – to review Opal usage data to see how people respond to changes in Opal fares and estimate the price elasticity of demand. As part of that work, CEPA/Hensher Group conducted a literature review to identify a range of published elasticity estimates for public transport and key issues relating to elasticity estimates.⁸

CEPA/Hensher Group concluded that:

- ▼ Travellers with relatively low incomes (eg, concession holders, seniors/pensioners) tend to be more responsive to price changes⁹
- ▼ Elasticities tend to be higher if the starting fare was higher.¹⁰

This suggests that reducing fares for people on low incomes could have a greater impact on patronage than fare decreases for the broader community. Looking at data reported by operators, we have not observed a material increase in patronage in response to the fare reductions implemented as part of the last review. This could suggest that demand is relatively inelastic or that the fare changes were poorly understood or communicated.¹¹

In order for fare changes to have any impact on demand they need to be properly communicated to potential bus users. We have made recommendations in relation to improving the availability of fare information. The Orima survey asked respondents about their awareness of the 2018 fare reductions and found that most people were not aware that fares had reduced.¹²

Better transport planning can ensure that services reflect community needs

TfNSW has recently taken on responsibility for bus planning across NSW. TfNSW is aiming to look at transport needs of the community as a whole. This is a significant task. TfNSW will begin with 16 cities identified as priority areas. Once these are done the process will be reviewed in order to determine what to focus on next.

⁸ Cambridge Economic Policy Associates and the Hensher Group (CEPA/Hensher Group), *Elasticity of Demand for Sydney Public Transport, Final Report*, October 2018, Annex E.

⁹ CEPA/Hensher Group cites a paper that found the elasticity of bus users ranged from -0.61 for the highest income users to -1.10 for the lowest income users. See (CEPA/Hensher Group, p 33).

¹⁰ CEPA/Hensher Group, p 34.

¹¹ Although we note that demand may not have changed materially due to service issues (eg, frequency and/or convenience of services not meeting customers' needs).

¹² Orima Research, *Survey of rural and regional buses and on-demand transport services*, August 2020, p 40.

As part of this process TfNSW is also considering what mix of services would best meet the community's needs. Experience with on-demand trials has demonstrated that there are likely to be significant community benefits from a more flexible service. It is the social inclusion benefits from on-demand that are likely to be the greatest. Feedback from on-demand trial operators is that a significant proportion of on-demand passengers say they would not have made the trip if the on-demand service had not been available as there was no fixed bus route that met their needs and a taxi or ride share would have been too expensive. However, the available evidence also suggests that on-demand services are substantially more expensive to provide. There is value in weighing up the costs and benefits of different types of services when determining what services to offer.

In response to our draft report NCOSS submitted that “while the draft recommendations will do much to address the affordability challenges, the draft report is largely silent on the accessibility of services”. NCOSS submitted that a lack of accessible services for people with a disability are an impediment to their full participation in society.¹³ This was also an issue raised by CarersNSW, who submitted that “the accessibility of vehicles should also be a consideration in the procurement of bus services by the NSW Government to ensure that people with limited mobility can access available public transport”.¹⁴

In regional NSW, 96% of buses that provide timetabled regular passenger services are wheelchair accessible. TfNSW advises that the remaining buses will be replaced by December 2022 to meet TfNSW's target of making 100% of the fleet compliant with the requirements of the *Disability Discrimination Act 1992* by end of 2022.¹⁵ Transport for NSW's Disability Inclusion Action Plan 2018-2022 lists its goals and initiatives for making transport accessible in all regions including regional NSW. Some of these initiatives include improving the accessibility, safety and amenity of bus stops and kerbside infrastructure through the Country Passenger Infrastructure Grants Program, providing information on accessible services through timetables and TfNSW website.¹⁶

Expanding the pool of bus users will make public transport services more cost effective

Rural and regional buses are primarily used by people who are not able to drive and have limited transport options. In rural and regional NSW driving tends to be more convenient as bus services are infrequent, often don't service the right location or routes are circuitous, and parking is easy and free. This means that it is unlikely that bus services are ever going to be used in the same way they are in metropolitan areas.

However, our consultation process identified the following potential markets for drawing additional passengers for rural and regional buses:

▼ Tourists

¹³ NCOSS submission to IPART Draft Report, October 2020, p 2.

¹⁴ CarersNSW submission to IPART Draft Report, November 2020, p 4.

¹⁵ Information from TfNSW, November 2020. The majority of buses in rural and regional NSW provide dedicated school services which are not required to meet the Disability Discrimination Act requirements.

¹⁶ [Transport for NSW's Disability Inclusion Action Plan 2018-2022](#)

- ▼ Sea-changers/tree-changers who have moved from the city to country areas and who are familiar with, and used to using, public transport as part of their daily transport mix
- ▼ Youth who are able to travel alone but not yet able to drive themselves
- ▼ Families with access to fewer cars than they need to meet all of their travel requirements.

As services are typically underutilised, any additional patronage that can be generated onto existing services from these groups will increase the cost effectiveness of rural and regional bus services. Some of the feedback from on-demand operators suggests that some of these passenger groups require a higher level of service in order to be induced to travel on public transport.¹⁷ There may be safety concerns for example, with the need for teenagers to walk to a bus stop and wait for a regular route service.¹⁸

We have made a number of recommendations aimed at improving consistency of fares and service information across NSW, simplifying daily ticket fares so it is easier to work out whether they represent good value relative to purchasing single fares and improving the information that is available on these services. We consider that these improvements provide a good starting point from which to encourage a broader section of the community to use bus services.

For example, a tourist travelling through NSW who is able to plan out a route and see available services and their price for their entire journey is significantly more likely to choose to travel on public transport than one who has to phone every bus company along their route to obtain this information.

Rural and regional buses do not avoid a significant amount of car use

In metropolitan and outer metropolitan areas we found that benefits from avoided car use were the most significant community wide benefits of bus services (Box 2). Bus use in rural and regional areas is very different from bus use in metropolitan and outer metropolitan areas in terms of the pattern and purpose of use and as a result, these benefits are not as important for rural and regional buses.

For rural and regional buses we have previously found that the benefits of avoided car use are small. Most people with ready access to a vehicle choose to drive due to:

- ▼ The relatively low costs of driving in these areas, where there are few additional costs such as parking and road tolls compared to city areas
- ▼ The greater convenience of driving, as people don't have to plan around infrequent services, or make their way to a bus stop

¹⁷ IPART meeting with TfNSW, 18 May 2020; IPART meeting with Reynolds and Fogarty, 7 August 2020.

¹⁸ IPART meeting with the Regional Youth Taskforce, 9 June 2020.

- ▼ The longer time required to make the journey by bus, due to circuitous routes and poor connections.¹⁹

Because rural and regional areas are usually unaffected by traffic congestion, it does not make a substantial difference to the travel times experienced by the wider community whether people take a bus or drive.²⁰ We also consider that there are unlikely to be external benefits from avoided pollution (including traditional air pollution, greenhouse gas emissions and noise pollution) for rural and regional buses. This is because of the low number of passengers per bus trip and the pollution created by buses themselves.

Box 2 Community wide benefits of buses in metropolitan and outer metropolitan regions

In our 2020 review of public transport fares in the Sydney metropolitan and outer metropolitan regions (Opal fare review), we found that the major external benefits created by using public transport in these regions are:

- ▼ Costs associated with avoided car use including avoided road congestion, air pollution, greenhouse gas emissions, noise pollution and accidents (avoided congestion being the most significant)
- ▼ Scale benefits, which are the time savings to existing public transport passengers when new services are put on to meet increased public transport demand
- ▼ Active transport benefits, which are avoided costs on the health system as a result of increased walking/cycling to catch public transport.

Source: IPART, *Opal Fares 2020-2024: External Benefits and Costs*, February 2020, p 1.

BusNSW commented on electric vehicles in its submission to our Issues Paper. BusNSW submitted that the NSW Government needs to consider how to implement its objectives for electric vehicles for rural and regional buses including having a transition plan to phase in electric and semi-autonomous vehicles.²¹ This includes:

- ▼ Enabling rural and regional bus operators to trial electric buses
- ▼ Amending the Bus Procurement Panel to enable regional operators to purchase electric vehicles
- ▼ Reviewing legislation to determine the changes required to support the operation of electric buses in NSW, including rural and regional areas

¹⁹ IPART's view in 2017 that the main purpose of subsidising services is to ensure access to local communities, and fares should be set to better meet this purpose. See IPART, *Maximum fares for rural and regional bus services - Final Report*, December 2017, p 24. Subsidy for rural and regional buses that results from our fares reflects this purpose and would far exceed any external benefits resulting from reduced traffic congestion.

²⁰ IPART, *Maximum fares for rural and regional bus services from 5 March 2018 - Final report*, December 2017, p 22.

²¹ This includes considering the different asset lives of electric and non-electric buses.

- ▼ Considering how to ensure contracts with bus operators have a fair allocation of risk in regard to the uncertainty around operating a fleet that has a growing proportion of electric buses during the contract term and to manage the ongoing ownership and availability of infrastructure to support an electric bus fleet.²²

The NSW Government released the NSW Electric and Hybrid Vehicle Plan in January 2019, which provides a framework of policies and actions designed to help NSW prepare for and support the transition to efficient, low emission, quiet and clean electric and hybrid vehicles.²³ A number of measures related to electric buses for metropolitan areas were included in this strategy and a trial of electric buses in Sydney also commenced.²⁴

In October 2019, the Legislative Assembly Committee on Transport and Infrastructure also began an inquiry into electric buses in regional and metropolitan public transport networks in NSW. BusNSW and TfNSW made submissions to that Inquiry.²⁵ TfNSW submitted that the transition to electric buses will require infrastructure upgrades to bus depots and other strategic locations to incorporate electric charging units. The operation of electric buses can be less flexible than diesel buses, due to their battery range and reliance on charging. This creates a challenge when incorporating them into bus routes that run over long periods of time. As more electric buses are rolled out, this can be mitigated. Electric buses are also more expensive than diesel buses to purchase upfront although the operating costs over the service lifetime are lower.²⁶

As technology improves, electric buses may become more feasible on rural and regional bus routes. We expect that the issues raised by BusNSW will be addressed during the next round of contract negotiations.

²² BusNSW submission to IPART Issues Paper, August 2020, pp 7-9.

²³ NSW Government, *Future Transport 2056 - NSW Electric and Hybrid Vehicle Plan*, pp 5-6.

²⁴ TfNSW submission into the Legislative Assembly Committee on Transport and Infrastructure inquiry into electric buses in regional and metropolitan public transport networks in NSW, November 2019, p 4.

²⁵ BusNSW submission into the Legislative Assembly Committee on Transport and Infrastructure inquiry into electric buses in regional and metropolitan public transport networks in NSW, December 2019, pp 2-3.

²⁶ TfNSW submission into the Legislative Assembly Committee on Transport and Infrastructure inquiry into electric buses in regional and metropolitan public transport networks in NSW, November 2019, pp 8-10.