

Independent Pricing and Regulatory Tribunal
New South Wales

Maximum fares for rural and regional bus services

From 5 March 2018

© Independent Pricing and Regulatory Tribunal (2017)

With the exception of any:

- (a) coat of arms, logo, trade mark or other branding;
- (b) third party intellectual property; and
- (c) personal information such as photos of people,

this publication is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia Licence.



The licence terms are available at the Creative Commons website:
<https://creativecommons.org/licenses/by-nc-nd/3.0/au/legalcode>

IPART requires that it be attributed as creator of the licensed material in the following manner: © Independent Pricing and Regulatory Tribunal ([Year of Publication]).

The use of any material from this publication in a way not permitted by the above licence or otherwise allowed under the *Copyright Act 1968* (Cth) may be an infringement of copyright. Where you wish to use the material in a way that is not permitted, you must lodge a request for further authorisation with IPART.

Disclaimer

IPART does not guarantee or warrant, and accepts no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained in this publication.

Information in this publication is provided as general information only and is not intended as a substitute for advice from a qualified professional. IPART recommends that users exercise care and use their own skill and judgment in using information from this publication and that users carefully evaluate the accuracy, currency, completeness and relevance of such information. Users should take steps to independently verify the information in this publication and, where appropriate, seek professional advice.

Nothing in this publication should be taken to indicate IPART's or the NSW Government's commitment to a particular course of action.

ISBN 978-1-76049-171-0

The Independent Pricing and Regulatory Tribunal (IPART)

IPART provides independent regulatory decisions and advice to protect the ongoing interests of the consumers, taxpayers and citizens of NSW. IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website: <https://www.ipart.nsw.gov.au/Home>.

Tribunal Members

The Tribunal members for this review are:

Dr Peter J Boxall AO, Chair

Mr Ed Willett

Ms Deborah Cope

Enquiries regarding this document should be directed to a staff member:

Brett Everett (02) 9290 8423

Felicity Hall (02) 9290 8432

Fiona Towers (02) 9290 8420

Contents

1	Executive Summary	1
1.1	Decisions on maximum fares	1
1.2	Why we made these fare decisions	3
1.3	Likely impact of these fare decisions	4
1.4	Recommendations delivering current bus services for less cost over time	4
1.5	Recommendations on developing on demand services for the same cost	5
1.6	Our process for this review	6
1.7	Structure of this report	6
1.8	List of decisions and recommendations	7
2	Context	12
2.1	Requirements in our letter of referral	12
2.2	Contract arrangements for rural and regional buses	13
2.3	Costs per passenger journey and cost recovery	14
2.4	Utilisation of regular passenger services	16
2.5	Developments in the public transport industry	19
3	Our approach for the review	21
3.1	Consider the purpose of providing rural and regional bus services	22
3.2	Set fares for current bus services to improve access to current bus services for local communities	25
3.3	Consider how public transport can be provided more cost-effectively over time	26
3.4	Consider issues related to cross border travel and concession eligibility and fares	26
4	Setting maximum fares for single journeys	27
4.1	Overview of decisions on fares for single journeys	27
4.2	No passengers will pay more than they currently do	30
4.3	For longer distances, fares are comparable with those for commercial coach services	33
4.4	Benefits of simplifying fare structure outweigh costs	34
4.5	Our final decision is to set fares for 3 years from 5 March 2018	35
4.6	Our decision is to set fares in 2019 and 2020 based on adjusting 2018 fares by the expected change in CPI	36
4.7	Opal ticketing on buses around Opal enabled stations is a matter for Government	38
5	Fares for frequent travel	39
5.1	Overview of our decisions on fares for frequent travel	39
5.2	Introducing a daily ticket	40
5.3	Our decision is not to introduce a weekly fare at this time	45
6	Delivering current bus services for less cost over time	47
6.1	Overview of findings and recommendations	47
6.2	AECOM's assessment of efficient costs	49

6.3	Our recommendations on improving efficiency of contract costs over time	61
6.4	Impact of fares on cost recovery, operators and Government funding	64
7	Delivering a better service for the same cost	68
7.1	Overview of findings and recommendations	69
7.2	What conditions would need to be met for on demand services to be cost-effective?	70
7.3	What types of on demand services are best-suited in rural and regional NSW?	73
7.4	What fares should customers pay for on demand bus services?	82
7.5	Operators should also consider the design of the on demand component and how it influences the additional delivery costs	83
8	Procuring transport services including on demand	85
8.1	Overview of findings and recommendations	85
8.2	Improving services under existing bus contracts	86
8.3	Providing new transport services	89
8.4	Procuring transport services in the longer term	92
9	Case studies of on demand services	95
9.1	Overview of the hypothetical regional city and case study services	95
9.2	Case study A: Suburb to centre	97
9.3	Case study B: Fixed route with deviations	99
9.4	Case study C: Satellite to services	101
9.5	On demand services costs per passenger journey where there is sufficient patronage response	103
10	Removing barriers to travel in cross border areas	107
10.1	Overview of findings and recommendations	107
10.2	Fares should address fare disparities in cross border areas	108
10.3	On demand booked service should be piloted in the Tweed area	109
10.4	New or upgraded ticketing systems should be adopted in the Albury area	110
10.5	Concession eligibility should be extended to NSW residents attending secondary school, TAFE, VET or university within 50 km of the border	112
10.6	In the long-term, services should be procured through competitive tendering	113
11	Concession eligibility and fares	114
11.1	Overview of findings and recommendations	114
11.2	Eligibility for RED ticket	115
11.3	RED ticket prices should be adjusted in line with CPI	116
A	Referral	119
B	Comparison of old and new contracting system	120
C	Factors we are required to consider	123
D	Congestion in rural and regional areas	124
E	IPART's building block approach, efficient costs and cost recovery	128
F	Weighted Average Cost of Capital (WACC)	136
G	Route cost analysis – regular passenger services (excluding school students)	142

H	On demand services and case study assumptions	145
I	Cross border fares	150
J	Concession eligibility for public transport in NSW, Queensland, ACT and Victoria	153
K	IPART bus passenger and operator surveys	158

1 Executive Summary

The Independent Pricing and Regulatory Tribunal (IPART) has conducted a major review of fares for public bus services provided by private bus operators in rural and regional NSW. We have determined the maximum fares to apply for the determination period – 5 March 2018 to 31 December 2020.

The NSW Government currently spends a substantial amount of money to provide these services. We estimate the total cost of providing both school and regular passenger services is \$414 million per annum. However, the patronage of regular passenger services is very low. As a result, the Government (and NSW taxpayers) spend an average of around \$18 dollars per regular passenger journey to provide regular passenger services in rural and regional areas.¹

We consider that there is scope to improve value for money from these services – both for people living in rural and regional areas and for taxpayers across NSW. Therefore, in making our final decisions and recommendations, we aim to improve value for money by setting fares to increase the patronage of the services in the short-term and raising their cost effectiveness over time.

This report sets out our fare decisions and recommendations, and explains where and why they differ from those proposed in our Draft Report.

1.1 Decisions on maximum fares

We made decisions to reduce the maximum level of fares for almost all single journeys, and to maintain those for the shortest journeys at their current level. We decided to maintain the current section-based fare structure for single journeys while at the same time simplifying the fare structure by consolidating the current 220 fare sections into just 10 fare bands.

Stakeholders generally supported reducing fares and simplifying the fare structure. However, in response to our Draft Report, BusNSW and several operators raised concerns about implementing distance-based fares using existing ticketing systems. Future systems may be better able to implement distance-based fares. Given these issues, we decided to maintain section-based fares that operators can implement using existing ticketing systems.

Under these decisions, the adult fare for a single journey would decrease by an average of around 29% from 5 March 2018. No passenger would pay more than they currently do, and many would pay noticeably less. Adult passengers taking the most common journey in rural and regional NSW (3 to 6 sections) would pay up to half of what they do today. This average decrease is slightly bigger than in our draft report as we have now included journeys of 1 to 2 sections in the first fare band.

¹ Excluding school students travelling on regular passenger services under the School Student Travel Scheme (SSTS)

In addition, we made a decision to introduce a section-based daily ticket. Under this decision, maximum fares for frequent travel should fall in most instances. We set the daily ticket equal to the return fare for the longest trip the passenger makes on the day (two times the single fare), plus a single 1-2 section fare (\$2.30 in 2018). For example, if a passenger made a return 10 section trip, plus a return 2 section trip, they would pay a maximum of \$12.10,² compared to \$16.60 if they paid for all fares individually.

Our decision on the maximum fares for single journeys is set out in Table 1.1, and our decision on section-based daily tickets is set out in Table 1.2.

The new fares will take effect from 5 March 2018 to allow bus operators time to implement our new fares using existing ticketing systems, in particular the new daily ticket.

Table 1.1 Final decision on adult fares for single journeys from 5 March 2018 (nominal, including GST)

Fare band	No. sections	Current maximum fares	Final maximum fares		
			2018	2019	2020
1	1 to 2	\$2.30 - \$3.40	\$2.30	\$2.40	\$2.40
2	3 to 6	\$4.30 - \$6.30	\$3.40	\$3.50	\$3.60
3	7 to 15	\$6.90 - \$10.50	\$4.90	\$5.00	\$5.10
4	16 to 25	\$10.80 - \$13.90	\$7.20	\$7.40	\$7.60
5	26 to 37	\$14.20 - \$17.20	\$9.60	\$9.80	\$10.10
6	38 to 56	\$17.50 - \$21.80	\$14.40	\$14.80	\$15.10
7	57 to 75	\$21.90 - \$30.00	\$20.80	\$21.30	\$21.90
8	76 to 100	\$30.00 - \$40.70	\$29.20	\$29.90	\$30.70
9	101 to 125	\$40.70 - \$48.20	\$38.70	\$39.70	\$40.70
10	126+	\$48.20 - \$60.00	\$48.20	\$49.40	\$50.60

Note: Sections are an average of 1.6 km over the total length of a bus route, but may vary between 1.3 km and 1.9 km.

² Two times the single 10 section fare of \$4.90, plus \$2.30.

Table 1.2 Final decision on adult daily ticket from 5 March 2018 (nominal, including GST)

Fare band	No. sections for longest trip during day	Final daily ticket		
		2018	2019	2020
1	1 to 2	\$6.90	\$7.20	\$7.20
2	3 to 6	\$9.10	\$9.40	\$9.60
3	7 to 15	\$12.10	\$12.40	\$12.60
4	16 to 25	\$16.70	\$17.20	\$17.60
5	26 to 37	\$21.50	\$22.00	\$22.60
6	38 to 56	\$31.10	\$32.00	\$32.60
7	57 to 75	\$43.90	\$45.00	\$46.20
8	76 to 100	\$60.70	\$62.20	\$63.80
9	101 to 125	\$79.70	\$81.80	\$83.80
10	126+	\$98.70	\$101.20	\$103.60

We found that the price of the Regional Excursion Daily (RED) ticket should be adjusted so that price relativities are maintained over time. Our recommendation on the RED ticket is set out in Table 1.3.

Table 1.3 Recommendations on the RED ticket

Determination year	RED Ticket price
2018	\$2.50
2019	\$2.60
2020	\$2.70

1.2 Why we made these fare decisions

We consider the main purpose of providing taxpayer-subsidised bus services in rural and regional areas is to ensure people with limited travel options – such as those who can't drive or can't afford a car or taxi services – have reasonable access to transport within their local communities. To improve the value for money provided by the services, the fares should be set to meet this purpose.

To do this, we used an approach for setting fares that places significant weight on people's willingness and capacity to pay for the services. We assessed this by examining a range of evidence - including feedback from surveys and stakeholder submissions, comparisons of the current fares with those in metropolitan NSW and bordering jurisdictions, and analysis of the expected elasticity of travel with respect to fares. We also had regard to the other matters we were required to consider in our letter of referral, including the need for greater efficiency in the supply of services and issues related to travel across borders.

We found that most current fares are higher than people are willing and able to pay, particularly those who are ineligible for concession fares. Therefore, they are a barrier to using the services, and impede achievement of their main purpose. We also found that most current fares are substantially higher than those in other areas and jurisdictions. For example, the current maximum adult fare for a return 10 km journey in rural and regional

NSW is \$13.80, which is double the fare for an equivalent journey in the ACT, Queensland and Victoria. In line with these findings, we set the fares for most journeys below the current fares.

The exception is the fare for very short journeys of up to 2 sections. The current maximum fare for these journeys is much lower than in the ACT and Queensland, and might be lower than people's willingness to pay. Therefore, we decided to set this fare at \$2.30 in 2018, and to reconsider the appropriate level at the next fare review.

1.3 Likely impact of these fare decisions

Our decisions to reduce maximum fares for most journeys and introduce daily tickets should help improve the value for money rural and regional bus services provide. By lowering current price barriers to using the services, these decisions should improve the patronage of the services. This should improve access to transport services within rural and regional communities, particular for people with limited transport options, and reduce the cost per passenger journey.

The decisions will also improve equity between fares in rural and regional areas and those in metropolitan NSW, and help to alleviate issues related to bus travel across borders by more closely aligning fares with those in other jurisdictions.

Our decisions set the maximum fares that rural and regional bus operators can charge their customers. The impact of these decisions on bus operators will depend on the fares they currently charge passengers compared to our proposed maximum fares. We note that a number of bus operators currently charge fares below the maximum.

Our decisions should not affect the level of Government funding for rural and regional buses in the current contract period. We expect more passengers to travel on the buses as a result of substantially lower fares. But the additional fare revenue from this increase in patronage may not fully offset the revenue impact of reducing fares. The impact on each operator depends on how patronage responds to lower fares. However we expect the impacts would be small compared to contract costs – for all operators in total around \$1.2 to \$1.7 million a year (up slightly from our estimate in the draft report) or less than 1% of costs under the current contracts across all rural and regional areas.

In addition, we have identified several areas where operators can improve the cost-effectiveness and efficiency of the services they provide (discussed below). The fare revenue impacts are a small proportion of the savings possible from these efficiency improvements.

1.4 Recommendations delivering current bus services for less cost over time

Over time, there is an opportunity for Government to improve the cost-effectiveness of contracted rural and regional bus services. We estimate that efficiency savings of around 20% to 25% for school only services and 28% to 32% can be made over time.

The efficient costs are lower than our draft report. Increases in maintenance, fuel and the seat belt program were more than offset by AECOM's revised labour cost allowances and a lower WACC.

The lower end of our ranges reflect the efficiency savings that can be made **without** any changes to existing labour arrangements. That is, through TfNSW collecting better information on route distances so that only efficient route kilometres are funded and reviewing the choice of bus makes and models.

The upper end of these ranges reflect the efficiency that can be made **with** changes to existing labour arrangements. We consider that TfNSW should make more use of competitive tendering to ensure the costs of rural and regional bus services reflect efficient costs.

Not all of these savings can be achieved immediately and, in some cases, may not be possible until buses are retired or the current contracts expire in 2024. However, over the next three years, we consider that Government should focus on improving the efficiency of operators with cost structures that are significantly higher than their peers.

1.5 Recommendations on developing on demand services for the same cost

On demand transport is a more flexible and customer-focused way to meet people's travel needs. It differs from traditional public transport services in that some aspects of the service vary according to customer needs and demand – for example, the departure time, route, pick-up and drop-off points and vehicle type.

The NSW Government is consulting on its services and infrastructure plan for regional NSW.³ This plan envisions more flexible and personalised service delivery options and greater use of on demand services as part of the package of transport services it provides in rural and regional areas.

We consider that on demand services can be used to deliver better value for money for passengers and taxpayers in rural and regional areas. However, they need to be targeted to identified community needs, and designed to ensure that high-cost, low-patronage fixed route services are not simply replaced by even higher cost, on demand services. To assist the Government in better targeting and designing on demand services, we have developed frameworks and a cost model to improve the procurement of transport services in rural and regional areas in both the short and longer term.

In the short term, Transport for NSW can negotiate with bus operators to vary existing high-cost, low-patronage fixed route bus services to deliver a better service to customers, potentially by adding on demand components, without increasing the existing government subsidy. During this period, we consider that fares for on demand components should reflect the better level of service delivered to passengers. We are recommending operators

³ NSW Government, *Regional NSW Services and Infrastructure Plan*, October 2017, at <https://future.transport.nsw.gov.au/react-feedback/regional-nsw-services-infrastructure-plan/>, accessed 9 November 2017.

be able to set an optional surcharge of between \$0 and \$5 (including GST) on top of the fixed route fare for on demand components.

We consider that bus operators know their costs and passengers best and are in the best position to understand how much they are willing to pay for an on demand service, and what level of surcharge is likely to generate sufficient additional demand.

In the longer term, we consider that market driven solutions to providing transport services would deliver innovative operating models that provide a better quality of service for passengers in a cost effective manner. Introducing competition in and for rural and regional transport services markets would ensure the right mix of transport – bus, ride share, taxi and community transport – is delivered. We are recommending that, at the end of the current bus contract period, Transport for NSW seek proposals from the market to provide transport services in each area, including on demand services. This would improve the cost-effectiveness of the current bus contracts, improve service outcomes for passengers and provide better value for taxpayers.

1.6 Our process for this review

Our review process to date has involved detailed analysis and public consultation:

- ▼ In May 2017 we released an Issues Paper which set out our proposed approach for the review. We received 14 submissions.
- ▼ At the same time, we released online questionnaires for bus operators and passengers. We received over 200 responses.
- ▼ We appointed AECOM to provide expert advice on the efficient costs of rural and regional bus services. AECOM's final report is available on our website.
- ▼ We appointed ORIMA to undertake a survey of rural and regional areas to understand current demand for public transport and the potential for greater use of more flexible, on-demand services. ORIMA's report is available on our website.
- ▼ In October 2017 we released a Draft Report which set out our Draft decisions, recommendations and findings. We received 9 submissions.
- ▼ We held public hearings in Coffs Harbour and Wagga Wagga on 3 November and 7 November respectively. Transcripts of the hearings are available on our website.

1.7 Structure of this report

The rest of this report explains our decisions and recommendations in more detail:

- ▼ Chapter 2 outlines key contextual information on current bus services in rural and regional areas including levels of utilisation, cost recovery and the impact of fares
- ▼ Chapter 3 explains the approach we have used to set fares and make our recommendations for this review
- ▼ Chapter 4 discusses our decisions on maximum fares for single journeys, and explains how our analysis of customers' willingness and capacity to pay supports these decisions
- ▼ Chapter 5 explains our decisions on daily and weekly fare caps

- ▼ Chapter 6 sets out our recommendations on delivering the current bus services for less cost over time
- ▼ Chapters 7-9 discuss our recommendations on delivering better services for the same cost, particularly by developing on demand services
- ▼ Chapters 10 and 11 discuss our recommendations for improving bus services in cross border areas, and the Regional Excursion Daily (RED) ticket.

1.8 List of decisions and recommendations

Decisions on maximum fares for single journeys and frequent travel

- 1 The maximum adult fares for single journeys be set as shown in Table 1.1. 27
- 2 The maximum adult daily ticket be set as shown in Table 1.2. 39

Table 1.1 Final decision on adult fares for single journeys from 5 March 2018 (nominal, including GST)

Fare band	No. sections	Current maximum fares	Final maximum fares		
			2018	2019	2020
1	1 to 2	\$2.30 - \$3.40	\$2.30	\$2.40	\$2.40
2	3 to 6	\$4.30 - \$6.30	\$3.40	\$3.50	\$3.60
3	7 to 15	\$6.90 - \$10.50	\$4.90	\$5.00	\$5.10
4	16 to 25	\$10.80 - \$13.90	\$7.20	\$7.40	\$7.60
5	26 to 37	\$14.20 - \$17.20	\$9.60	\$9.80	\$10.10
6	38 to 56	\$17.50 - \$21.80	\$14.40	\$14.80	\$15.10
7	57 to 75	\$21.90 - \$30.00	\$20.80	\$21.30	\$21.90
8	76 to 100	\$30.00 - \$40.70	\$29.20	\$29.90	\$30.70
9	101 to 125	\$40.70 - \$48.20	\$38.70	\$39.70	\$40.70
10	126+	\$48.20 - \$60.00	\$48.20	\$49.40	\$50.60

Note: Sections are an average of 1.6 km over the total length of a bus route, but may vary between 1.3 km and 1.9 km.

Table 1.2 Final decision on adult daily ticket from 5 March 2018 (nominal, including GST)

Fare band	No. sections for longest trip during day	Final daily ticket		
		2018	2019	2020
1	1 to 2	\$6.90	\$7.20	\$7.20
2	3 to 6	\$9.10	\$9.40	\$9.60
3	7 to 15	\$12.10	\$12.40	\$12.60
4	16 to 25	\$16.70	\$17.20	\$17.60
5	26 to 37	\$21.50	\$22.00	\$22.60
6	38 to 56	\$31.10	\$32.00	\$32.60
7	57 to 75	\$43.90	\$45.00	\$46.20
8	76 to 100	\$60.70	\$62.20	\$63.80
9	101 to 125	\$79.70	\$81.80	\$83.80
10	126+	\$98.70	\$101.20	\$103.60

Recommendations

Setting maximum fares for single journeys and frequent travel

- 1 That TfNSW and bus operators promote fare reductions and the new daily ticket in rural and regional areas in 2018. 36

Delivering current bus services for less cost over time

- 2 Until contracts are competitively tendered, TfNSW require: 62
 - Large and Medium bus operators to report annually on a consistent basis on: 62
 - a. patronage by route using IPART’s new fare bands, 62
 - b. service kilometres and dead running kilometres by **route**, 62
 - c. costs incurred in providing the services using cost categories similar to the reporting requirements for metro and outer metro bus operators 62
 - Small and Very Small bus operators to report annually on: 62
 - a. patronage by route using IPART’s new fare bands, 62
 - b. total service kilometres and total dead running kilometres, and 62
 - c. key cost items (labour, fuel, repairs and maintenance). 62
- 3 TfNSW review the reported patronage of bus services to determine whether the size of the bus allocated to routes is appropriate. This review should occur when: 63
 - A bus operator seeks to replace a bus under its existing contract. 63
 - For Large and Medium operators, bus utilisation over a six-month period is less than 10% and TfNSW should require operators to demonstrate why they need to maintain the current bus size. 63

- For Small and Very Small operators, bus utilisation over a 12-month period is less than 10% and TfNSW should require operators to demonstrate why they need to maintain the current bus size. 63
- 4 That TfNSW require operators to demonstrate that the benefits exceed the costs of replacing buses by considering the condition of the bus, the distance it has travelled, comfort, safety requirements and the cost of replacement. This would allow operators to shorten or extend the life of buses where the benefits exceed the costs. 64

Delivering a better service for the same cost

- 5 Bus operators be able to charge customers who book an on demand service a surcharge of between \$0 and \$5 (including GST) on top of the fixed route fare. 84
- Bus operators should set the level of surcharge based on customers' willingness to pay, the likely impact of the surcharge on the level of demand, and the likely impact of the design of the on demand component and its impact on the additional delivery costs. 84
 - Bus operators should make reduced surcharges available to concession passengers. 84

Procuring transport services including on demand

- 6 In the short term, TfNSW use the framework (Box 8.1) to identify the contracted bus services that provide relatively low value for money and negotiate with bus operators to vary these services to deliver a better service to customers, without increasing existing contract costs. 87
- 7 Where a need for additional transport services in rural and regional areas is identified in the short term, TfNSW seek: 92
- expressions of interest and/or competitive tenders from incumbent transport provider/s, where these additional services overlap with an existing network, or 92
 - expressions of interest and/or competitive tenders from all potential service providers, where these additional services are not part of an existing network. 92
- 8 TfNSW seek proposals from the market when procuring transport services to operate in rural and regional NSW from 2024. This should include inviting proposals for innovative transport service models that provide improved transport services and greater flexibility to meet the community need at least cost. 94

Removing barriers to travel in cross border areas

- 9 TfNSW and Surfside Buslines: 110
- develop and pilot an on demand booked transport service to provide a higher level of service for travel in peak times (7 am to 9 am and 4 pm to 6.30 pm weekdays) in the Tweed area 110
 - evaluate the cost-effectiveness of this service after six months to decide whether routes continue to be provided as fixed routes or converted into further on demand services. 110

10	TfNSW require operators in the Albury/Wodonga area to adopt ticketing systems that:	111
	– allow passengers to purchase a single ticket for their entire journey across both operators’ service areas including across the border, and	112
	– facilitate sharing of fare revenue between each operator and Public Transport Victoria.	112
11	TfNSW extend concessions to NSW residents attending secondary school, TAFE, VET or university located within 50 km of the border as full time, on-campus students.	113
12	TfNSW reimburse the Queensland Government, Victorian Government, ACT Government or relevant bus operator for the difference between the concession fare and the single adult fare for those NSW residents travelling on a concession ticket attending secondary school, TAFE, VET or university located within 50 km of the NSW/Queensland, NSW/Victoria and NSW/ACT borders as full time on-campus students.	113
13	TfNSW negotiate with the relevant secondary school, TAFE, VET or university in Queensland, NSW and ACT to facilitate the processing of student travel concession applications.	113
14	When seeking proposals from the market in cross border regions from 2024, TfNSW should ensure that:	113
	– service levels meet the need for connectivity to transport links across borders	113
	– tickets cover travel across borders, and	113
	– administrative arrangements facilitate sharing fare revenue with state jurisdictions.	113

Concession eligibility and fares

15	TfNSW adjust the price of the RED ticket as indicated in Table 1.3	117
----	--	-----

Table 1.3 Final recommendations on the RED ticket

Determination year	RED Ticket price
2018	\$2.50
2019	\$2.60
2020	\$2.70

Final findings

Our approach for this review

1	The main purpose of providing subsidised public bus services in rural and regional NSW is to ensure people with limited transport options have reasonable access to their local communities.	24
---	--	----

Delivering current bus services for less cost over time

-
- 2 The efficient costs of providing rural and regional bus services in 2017 are on average 20% to 25% lower than contract costs of providing school only services and on average 28% to 32% lower than contract costs for school and regular services. 49

Delivering a better service for the same cost

- 3 In the short term, for on demand bus services to be cost-effective in rural and regional NSW, they would need to: 73
- attract sufficient additional usage and fare revenue to offset the additional costs of provision 73
 - be well-targeted to address an identified community need 73
 - be well-marketed to ensure the community is aware of them and understand how they work. 73

2 Context

In rural and regional areas, the NSW Government contracts private bus operators to provide public bus services. Transport for NSW (TfNSW) administers the contracts, which define the services the operators provide and the payments they receive. There are two types of services – ‘dedicated school services’ and ‘regular passenger services’.

Typically, operators provide **dedicated school services only**, or a combination of both **dedicated school services** and **regular passenger services**. IPART determines the maximum fares for the regular passenger services only.

To develop our approach for the review, we considered the requirements in our letter of referral, as well as other important context for the review. Overall, we found that the Government’s costs in providing rural and regional bus services are high, and the utilisation of these services is low. Therefore, we consider that there is scope to improve the value for money of the services, both for those who could use them and NSW taxpayers who subsidise them.

The sections below outline the requirements in the letter of referral, and provide more information on:

- ▼ the contract arrangements for rural and regional bus services
- ▼ the cost of each regular passenger journey provided, and how much of the total costs are recovered from fare revenue (known as cost recovery)
- ▼ the utilisation of regular passenger services, and
- ▼ the changes occurring in the transport industry that may affect the provision of public transport services in rural and regional areas in the future, including the development of more flexible, on demand services.

2.1 Requirements in our letter of referral

In making our fare determination, we are required to consider the matters set out in section 124(3) of the *Passenger Transport Act 2014* (the Act). These are the matters we typically consider in all our transport price reviews, including the cost of providing the services, the need for greater efficiency to reduce costs for the benefit of consumers and taxpayers, the need to protect consumers from abuses of monopoly power, and the effect of the determination on the level of Government funding.

The Minister’s referral (Appendix A) also asks us to consider six additional matters, including:

- ▼ the equity of current rural and regional bus fares compared to Sydney metropolitan bus fares
- ▼ the benefits and costs of simplifying the current fare structure

- ▼ issues related to travel across borders, including concession fares and different eligibility criteria between states
- ▼ the development of on demand services in regional areas
- ▼ issues related to eligibility of concession fares in NSW and the level of subsidy provided by the NSW Government, and
- ▼ customers' willingness and capacity to pay given demographics and current service quality in regional NSW.

2.2 Contract arrangements for rural and regional buses

Last year, TfNSW negotiated new contracts with the bus operators already providing rural and regional services. Unlike for some Sydney metropolitan bus contracts, it did not use a competitive tender process. The new contracts generally commenced between April 2016 and June 2016.

The new contract system includes four types of contract - Large, Medium, Small and Very Small - based on the number of buses in the operator's contracted fleet (see Appendix B for further information). Each contract specifies the services the operator is to provide (including the routes and timetables) and the payments they will receive for this. They also allow the bus operator to keep any fare revenue it collects (in addition to its contract payments).

The new contracts specify largely the same routes and timetables as the previous ones. Depending on the geography of the routes and the timetables, operators may use a dedicated bus for each route, use several buses on the same route across the day, or use the same bus to service multiple routes across the day.

As the current contracts have only been in place a short time, most of the information available for our cost and utilisation analysis relates to the previous contract system. Under this system, there were two types of contracts - Contract A (for operators providing dedicated school routes only) and Contract B (for operators providing both dedicated school services and regular passenger services).

The information on payments to Contract B operators does not separate payments related to dedicated school services from those for regular passenger services. Where possible, we have attributed the costs to regular passenger services based on the route and timetable information in the contracts. Throughout this report, we have used the following terms to clearly distinguish which services our analysis relates to:

- ▼ school only - relates to dedicated school services provided under Contract A
- ▼ regular passenger - relates to regular passenger services provided under Contract B
- ▼ school and regular passenger - relates to both dedicated school services and regular passenger services provided under Contract B.

2.3 Costs per passenger journey and cost recovery

Under the current contracts and levels of patronage, the costs per regular passenger journey are high and levels of cost recovery are low. The current cost of providing all rural and regional bus services is around \$414 million a year (see Table 2.1).⁴ We estimate that around 51% (or \$211 million) of these costs are for operators providing school only services.

Table 2.1 Key features of rural and regional bus services

	\$2017
Total costs - contracted	\$414 million
School only costs - contracted	\$211 million
School and regular passenger costs - contracted	\$203 million
Contract total costs per passenger journey on regular passenger services (excluding school students) ^a	\$24
Contract total costs per passenger journey on regular passenger services (including school students)	\$16
Average distance per trip – regular passenger	3 km
Efficient cost recovery - school and regular passenger services ^b	6%
Efficient cost recovery – regular passenger services ^a	11-12%

^a Based on large and medium operators that provide both school and regular passenger services. For further information see Appendix E.

^b Based on large and medium operators that provide both school and regular passenger services.

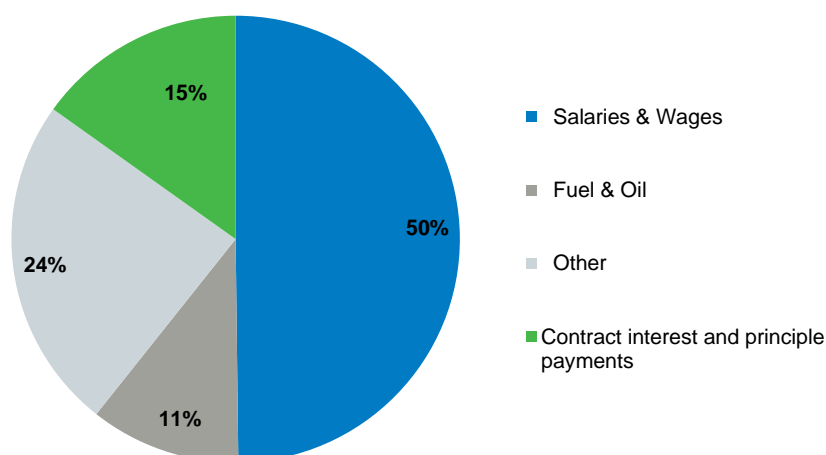
Source: IPART analysis of information provided by TfNSW April-July 2017.

The contract costs cover both the operating and capital costs of delivering the services. Operating costs include day-to-day costs such as driver salaries and wages; fuel costs; bus-related costs including registration, insurance, repairs and maintenance; overheads and administration costs (such as depot rent, accountancy/legal fees, non-bus insurance and utility costs). Capital costs include largely bus fleet costs and other equipment (such as ticketing and IT).

Contract costs are broken into four categories (see Figure 2.1), with salaries and wages forming the largest category of costs (50%).

⁴ We note an estimate of fare revenue was deducted from total costs when establishing the Annual Contract Prices for the new contracts. See BusNSW Submission to IPART Issues Paper, June 2017, p 3.

Figure 2.1 Contract cost categories (2017)



Note: Based on first contract year for all operators.

Data source: Information provided by TfNSW and IPART analysis.

Operators purchase buses from a panel of approved vehicle makes and models that is maintained by TfNSW. The buses fall into four categories depending on the number of seats in the bus (see Table 2.2). Operators receive contract payments over the maximum service life of the buses to cover the cost of purchasing the vehicles. The maximum service lives are specified in the contract and range from 15 years (for Category 1 and 2 buses) to 25 years (for Category 3 and 4 buses).⁵

The new contracts require operators to obtain TfNSW's approval prior to acquiring a new bus.⁶ They must acquire buses from a prequalification scheme or procurement panel maintained by TfNSW.⁷ At the end of the contract term, if an operator's contract is not renewed, the contract allows for all buses to be transferred to the new operator or to TfNSW.⁸

In June 2017, the Minister for Transport announced that all 2,800 rural and regional buses will have seatbelts by December 2021 with the replacement of 415 buses and retrofitting 1,937 existing buses, on top of the 515 buses that have already been replaced. All rural and regional school buses will have seatbelts by December 2019.⁹

As noted above, some operators tend to use one bus per route, while others make use of the same bus across multiple routes.

⁵ See for example TfNSW, Rural & Regional Bus Service Contract (Large), p 165.

⁶ See for example TfNSW, Rural & Regional Bus Service Contract (Large), clause 14.1 (b), p 32.

⁷ Unless TfNSW otherwise notifies the operators in writing. See for example Rural & Regional Bus Service Contract (Large), clause 14.2, p 33.

⁸ See for example TfNSW, Rural & Regional Bus Service Contract (Large), clause 15.5 (a), p 34.

⁹ Transport for NSW, Media release – Strap in for seatbelt bonanza, at <https://www.transport.nsw.gov.au/newsroom-and-events/media-releases/strap-for-seatbelt-bonanza>, Accessed 16 November 2017.

Table 2.2 Rural and regional bus categories

Bus Category	Number of seats
1	8 to 14
2	15 to 28
3	29 to 43
4	44 +

Source: See Appendix B

As Table 2.1 shows, the average contract cost for regular passenger services is currently about \$24 per regular passenger journey (excluding school students). In many cases, school students travel on regular passenger services. Once they are included, the average contract cost for regular passenger services is about \$16 per passenger journey. However, average fares are currently around \$6 per passenger journey.¹⁰

The revenue bus operators collect from fares represents around 11-12% of the efficient costs for regular passenger services, and around 6% of the efficient costs for operators that provide both school and regular passenger services.

2.4 Utilisation of regular passenger services

Regular passenger services in rural and regional areas currently have very low levels of utilisation. These low levels of utilisation are one of the key reasons for the high cost per passenger journey discussed above. (The other key reason, higher than efficient costs to provide the services, is discussed in Chapter 6.)

As part of the review of efficient costs, AECOM examined the levels of utilisation across school only and school and passenger services. It estimated utilisation by comparing reported patronage to the seats available for a selection of routes. It found the reported patronage for school and passenger services is substantially lower:

- ▼ For school only services, 12% of all routes have average bus utilisation at less than 60% of capacity.
- ▼ For school and passenger services, 96% of routes providing regular passenger services have average bus utilisation at less than 60% of capacity, and 50% have average bus utilisation at less than 10%.¹¹

AECOM noted that its analysis of regular passenger services excludes the impact of school students travelling on regular passenger services. Once these are included, we estimate that around 80% of regular passenger services have average bus utilisation at less than 25%.¹²

In addition, as part of our online survey, we asked bus operators how full their services are on a typical day. For school only services, 55% of the respondents said their bus services are about three-quarters full, and 36% said they are close to full capacity. For school and passenger services:

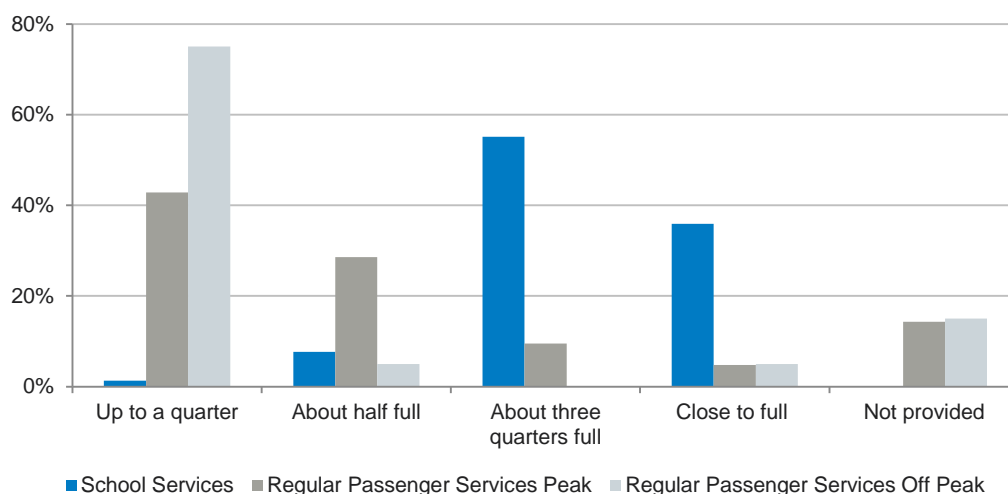
¹⁰ This assumes that all fare paying passengers pay the adult fare, rather than pensioner and concession fares.

¹¹ AECOM, *Efficient costs of rural and regional bus operators – Final Report*, December 2017 p 10.

¹² Information provide by AECOM, TfNSW and IPART analysis.

- ▼ Nearly all respondents said their regular passenger services run about or less than half full during both peak and off-peak periods,
- ▼ In peak periods, 43% said these services run about a quarter full and 5% said they run close to full, and
- ▼ In the off-peak, 75% said their regular passenger services run less than about a quarter full, and 5% said they run close to full.¹³

Figure 2.2 Bus utilisation for different services



Note: Not provided means that no response was provided to these questions.

Data source: IPART rural and regional bus operator survey, June 2017.

ORIMA's survey of people living in rural and regional areas asked those who had used bus services in the last six months how full the bus was for their most recent bus trip. The majority (83%) said the bus was less than or about half full – and 3% said they were the only passenger on the bus.¹⁴ Among all respondents, only 6% said that they commonly used buses.¹⁵

There are several reasons why bus patronage in rural and regional areas is so low. The first is that most people in these areas have access to cars. In ORIMA's survey 98% of respondents said they commonly used private vehicles.¹⁶

Another reason is that bus services are much less convenient than private vehicles. For example, Table 2.3 shows the time of the first and last service and timetabled frequency for selected routes in regional centres. Many routes provide the last service on Monday to Friday at around 5-6 pm and in the early afternoon on Saturdays. In many cases services are not provided on Sunday and public holidays. At times, some services are only provided once every two hours.

¹³ IPART online survey of bus passenger and operators, June 2017.

¹⁴ ORIMA, *IPART Regional transport survey*, September 2017, p B12.

¹⁵ ORIMA, *IPART Regional transport survey*, September 2017, p B8.

¹⁶ ORIMA, *IPART Regional transport survey*, September 2017, p B8.

Table 2.3 Service coverage and frequency for selected routes in Albury, Dubbo, Grafton and Wagga Wagga

	Monday-Friday		Saturday		Other notes
	First and last service	Frequency (approx.)	First and last service	Frequency (approx.)	
Quicks Hill to Albury (907)	7.28 am to 5.13 pm	Every 45-65 mins	8.13 am to 12.13 pm	Every 60 mins	No service Sundays or public holidays
Lake Albert to Wagga Wagga (960)	7.18 am to 4.42 pm	Every 30-60 mins	7.42 am to 3.31 pm	Every 50-60 mins	No service Sundays or public holidays
Grafton – South Grafton (374)	7.16 am to 7.40 pm	Every 30-60mins	8.15 am to 5.40 pm	Every 60 mins	4 services a day Sunday and Public Holidays
Dubbo - South from CBD (570)	7.45 am to 5.35 pm	Every 30- 75 mins	8.50 am to 1.55 pm	3 services a day	No service Sundays

Source: Martins Travel Group Albury, *Timetables & Network Map*, at <http://www.martinsalbury.com.au/timetables-maps/907> , accessed on 13 September 2017, Dubbo Buslines, *Local Town Services*, at <http://www.buslinesgroup.com.au/images/pdf/dubbo/Dubbo%20TT%202014.pdf> , accessed 13 September 2017. Busways, Route 374 timetable, at https://www.busways.com.au/travelling_with_us/route/374/route-374-town-centre-south-grafton-town-centre-bimble-av , accessed 29 September 2017. Busabout, Route 960 timetable, at <https://busaboutwagga.com.au/pdf/timetables/960.pdf> , accessed 29 September 2017.

In addition, because the bus routes are often designed to provide coverage to a wide area, they can be circuitous. As a result, the journey time can be several times longer than if the journey was made by car. For example, on route 963 in Wagga Wagga, the timetabled bus route from Dalman Pkwy at Glenfield Rd to Wagga Wagga Marketplace takes around 30 mins, when a direct journey by car would take 10 minutes.¹⁷

ORIMA’s survey also asked people about their level of satisfaction with the service provided by buses, community transport, courtesy transport and taxi. Respondents were least satisfied with bus services.¹⁸ Those living further away from major regional centres were more likely to be dissatisfied.¹⁹ Across all regions, respondents were most dissatisfied with the availability and the quality of the nearest bus stop.²⁰ People living further away from major regional centres were more likely to be sensitive to the distance to their nearest stop, whereas those living close to a regional centre may be more sensitive to the quality of the bus stop.²¹

Our online questionnaire asked people how to improve their local bus services. Many people commented, and in general, the most common answers were:

- ▼ more regular bus services, including outside of business hours and on weekends
- ▼ more affordable fares
- ▼ more reliable bus services.²²

¹⁷ See Busabout Wagga, Route 963 timetable, <https://busaboutwagga.com.au/pdf/timetables/963.pdf>, accessed 27 September 2017. Journey by car based on a 6 km journey at an average speed of around 35 km/h

¹⁸ ORIMA, *IPART Regional transport survey*, p B14

¹⁹ ORIMA, *IPART Regional transport survey*, p B15

²⁰ ORIMA, *IPART Regional transport survey*, p B20

²¹ ORIMA, *IPART Regional transport survey*, p B21

²² IPART rural and regional bus passenger survey, June 2017.

2.5 Developments in the public transport industry

Since we released our Draft Report, the NSW Government has released its draft 40-year strategy on the future of the NSW transport system, *Draft Future Transport Strategy 2056*.²³ The strategy sets the directions and outcomes for customer mobility in NSW to guide transport investment over the longer term. In regional NSW this strategy will be delivered through a supporting plan, *Regional NSW: Services and Infrastructure Plan*.²⁴

The draft strategy and plans identify how long term priorities for transport services can take advantage of emerging technology and service models to better meet customer needs.²⁵ The strategy reflects changes in the delivery of transport services in NSW as a result of rapid advances in technology and a growing mobility services market. These changes will enable more flexible and personalised service delivery options for passengers. For example, a passenger would be able to use their phone to plan a journey from their home to a destination and make a single purchase covering all modes of travel such as car share, point-to-point travel, bike share and public transport.

The NSW Government recognises that flexible services are an integral part of the transport system to help deliver reliability and the most appropriate type of service for customer needs.²⁶ It is working towards incorporating more on demand services into the package of transport options it provides for people in regional areas. Recently, the Government has called for expressions of interest for on demand transport services in rural and regional NSW.²⁷

On demand transport services are a more flexible and customer-focused way to meet people's travel needs. They differ from traditional public transport services in that some aspects of the service vary according to customer needs and demand – for example, the departure time, route, pick-up and drop-off points, type of vehicle, and payment method. The customer experience of on-demand services sits somewhere between travelling by private car and catching a traditional, fixed-route public transport service.

The Government already provides one type of on demand transport services in these areas through contracts with 92 community transport organisations and funding of \$74 million a year.²⁸ Community transport organisations provide support to those 65 years or older, young people with a disability and their carers, as well financially disadvantaged people or those living in remote or isolated areas of NSW.

²³ NSW Government, *Draft Future Transport Strategy 2056*, October 2017, at <https://future.transport.nsw.gov.au/react-feedback/future-transport-strategy-2056/>, accessed 9 November 2017.

²⁴ NSW Government, *Draft Regional NSW Services and Infrastructure Plan*, October 2017, at <https://future.transport.nsw.gov.au/react-feedback/regional-nsw-services-and-infrastructure-plan/>, accessed 9 November 2017.

²⁵ NSW Government, *Draft Future Transport Strategy 2056*, October 2017, p 15.

²⁶ NSW Government, *Regional NSW Services and Infrastructure Plan*, October 2017, p 104.

²⁷ NSW Government Media Release, *On Demand Transport for Regional NSW*, 23 November 2017 at <https://www.transport.nsw.gov.au/news-and-events/media-releases/on-demand-transport-for-regional-nsw>, accessed at 29 November 2017.

²⁸ Correspondence with Transport for NSW on 21 April 2017.

From October 2017, the Government is also conducting eight pilot trials of on demand bus services in Sydney. These services allow customers to book transport from or near their home to a local transport hub or other centres including local hospitals.²⁹

Further changes are also occurring for point to point transport services. From 1 November 2017,³⁰ a new regulatory framework will apply to all point to point service providers including:

- ▼ **taxi**, which can provide booked trips and accept hirings from taxi ranks and street hails (rank and hail services), and
- ▼ **hire vehicles**, which include traditional hire cars and rideshare providers, and can only provide booked trips.³¹

Under this new framework, the fares for booked taxi trips will no longer be regulated. Like hire vehicles, taxis will be able to set their own charges for these trips, and customers can readily shop around to find a price and service that best suits their needs.

In the context of these changes, the Government asked us to consider the development of on demand services as part of this review. Our findings and recommendations are discussed in Chapters 7 to 10.

²⁹ TfNSW, *Media Release - A bus stop outside your door: On demand transport is here*, at <https://www.transport.nsw.gov.au/newsroom-and-events/media-releases/a-bus-stop-outside-your-door-on-demand-transport-here>, accessed 29 September 2017.

³⁰ TfNSW, *Media Release - NSW to welcome a fairer playing field for taxis and hire vehicles*, 18 August 2017.

³¹ *Point to Point Transport (Taxis and Hire Vehicles) Act 2016*.

3 Our approach for the review

In our Issues Paper, we proposed to set maximum fares for rural and regional bus services using elements of the approach we use in most other industries we regulate and our current approach for setting fares for public transport services in metropolitan NSW (Opal services). It involved setting fares based on the efficient costs and external benefits of the services, so that they recover an appropriate share of the costs from customers and encourage the efficient use and delivery of the services.

However, after doing further analysis, we found that given the high costs and very low usage of these services (discussed in Chapter 2), there is unlikely to be a fare or set of fares that would recover the efficient costs **and** that customers would pay. In addition, the external benefits associated with the use of the services in most areas are likely to be low, due to the absence of traffic congestion in most rural and regional areas. (See Box 3.1 for more information.)

Therefore, we have developed a revised approach for this review. This approach is designed to help improve the value for money that the provision of rural and regional bus services provides to the customers who could use them and the NSW taxpayers who subsidise them. It involves the following steps:

1. Consider the primary purpose of providing subsidised public bus services in rural and regional NSW
2. Set maximum fares at levels that will enable the current services to better meet this purpose
3. Consider how transport services can be delivered more cost-effectively over time, including by developing on demand services
4. Consider issues related to cross border travel and concession eligibility and fares.

This approach takes account of all the factors we are required to consider for this review. Appendix C outlines how we considered these factors, and where they are discussed in this report.

The sections below discuss our draft decision on the first of these steps, and outline our approach for the remaining steps.

Box 3.1 Price-setting approaches used in other industries are not suitable for rural and regional bus fares

As discussed above, we have developed a revised approach for setting rural and regional bus fares. For other industries we regulate^a we often consider the total efficient costs of providing the services (including a reasonable profit), and then to set prices to reflect these efficient costs (taking into account forecast use of the services). This approach protects consumers by ensuring the regulated businesses cannot make excessive profits, ensures that these businesses can recover their efficient costs, and encourages them to improve their efficiency.

However, our analysis shows that there is unlikely to be a fare or set of fares for rural and regional bus services that would recover rural and regional bus operators' efficient costs **and** that customers would pay. The average efficient cost of providing these regular passenger services in 2017 is around \$11 per regular passenger journey, for an average distance travelled of 3km. If we set average fares in line with this average cost, catching a bus would be the same as using a taxi. At this price, some users would choose to use taxi services for their better service standard, and others would choose not to take some journeys. This would result in lower usage so the total fare revenue would still not recover the total efficient costs.

Our current approach for setting fares for Opal services is to consider the external benefits and the efficient marginal costs of the services. External benefits are the community-wide benefits that arise when people use the service instead of driving, such as reduced traffic congestion. Marginal costs are the costs of providing one extra passenger journey, which depend on how close to capacity the services are. When the external benefits are significant and the marginal costs vary across transport modes (rail, bus, ferry and light rail) services and time (peak and off-peak), this approach shares the costs fairly between the users and NSW taxpayers, and encourages more efficient use and delivery of the services.

However, this approach is not appropriate for rural and regional buses because the lack of traffic congestion in most areas and the low patronage of the services means both the external benefits and marginal costs are likely to be small. Using this approach would likely result in fares that are close to zero. While this would maximise patronage, it would not take appropriate account of the other factors we are required to consider in setting fares. For example, setting zero fares would likely have an unreasonable impact the level of government funding for the services and the impact on operators who retain farebox revenues.

^a For example, the metropolitan water industry and the private ferry industry.

3.1 Consider the purpose of providing rural and regional bus services

In busy metropolitan areas like Sydney, governments choose to subsidise public transport services because when people use these services instead of driving their own car it creates external benefits for the wider community. The most significant external benefit is avoided traffic congestion, which not only saves time for those who choose to drive but also creates productivity benefits for the whole community.

Conversely, if governments did not subsidise public transport in these areas, fares would need to recover the full costs of delivering the services. These higher fares, combined with the greater convenience of driving, would encourage many more people to drive. The resulting increase in traffic congestion would impose a cost on the whole community.

However, in rural and regional areas, the use of public bus services does not create significant external benefits. Because these areas are usually unaffected by traffic congestion, it makes little difference to the wider community whether people take a bus or drive (see Appendix D for further analysis on the impact of congestion in rural and regional areas). In addition, even if bus services were free, people with ready access to a vehicle would probably still 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
- ▼ the longer time required to make the journey by bus, due to circuitous routes and poor connections.

So why do governments choose to subsidise bus services in rural and regional areas? In our view, the primary reason is that communities value the benefits associated with ensuring that people with limited transport options have reasonable access to their local communities for employment and education opportunities, health services, shopping and social and community activities. People with limited transport options include those unable to drive themselves – due to age, disability, or lack of access to a car – and unable to afford regular use of commercial transport services, such as taxis.

In *Future Transport 2056*, the Government outlined the vital role of transport in providing access and social well-being for regional customers given the characteristics of regional NSW (Box 3.2).

Box 3.2 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 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 levels of disadvantage
- ▼ ensuring access to jobs, education, health care and other services, and
- ▼ enabling the social well-being of regional communities.

Source: NSW Government, *Future Transport 2056, Draft Regional NSW Services and Infrastructure Plan*, pp 56-57

Another possible reason is that subsidising public transport services can result in savings in other areas of government spending, such as Centrelink benefits. However, this is not likely to be the case for rural and regional buses, because the cost of providing the bus services probably outweighs any savings in other areas. (See Box 3.3 for further information.)

Final finding

- 1 The main purpose of providing subsidised public bus services in rural and regional NSW is to ensure people with limited transport options have reasonable access to their local communities.

This finding is largely unchanged from our draft report. Stakeholders generally supported this finding. For example, NRMA noted that transport access is central to improving the wellbeing of regional communities and echoed our finding on the main purpose of providing rural and regional bus services.³²

One Individual (Anonymous) argued that promoting inclusion within the local community is only one role of providing rural and regional bus services. They challenged our view that rural and regional areas are unaffected by traffic congestion and argued that providing efficient and reliable public transport could reduce congestion in rural and regional areas and potentially defer or reduce government spending.³³ As a result, they argued that we should re-evaluate the external benefits associated with bus services and if appropriate adjust the maximum fares following this.

We acknowledge that there may be some small external benefit associated with reducing congestion in regional cities at certain times of the day. However we maintain our view that the *main* purpose of subsidising services is to ensure access to local communities, and fares should be set to better meet this purpose. We also note that the 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.

Box 3.3 Bus services may reduce the need for other government assistance

In previous public transport reviews, some stakeholders have submitted that one reason governments subsidise public transport services is because it can result in savings in other areas of government spending. For example, if public transport enables people to get to work where they would have otherwise had no other option, the Government can save on Centrelink benefits for these passengers. Another example that is often raised is that if public transport can enable people better access to social activities, then the mental health costs associated with social isolation could be avoided.

These potential savings to government can be distinguished from the external benefits that arise from general use by all passengers who would have otherwise driven or caught a taxi. This is because they would only arise from bus use by a particular subset of passengers who **would not** have otherwise been able to make their journeys, **and** as a result, would have required subsidies in other areas of government spending. They would not arise for journeys that would have been made by other means (such as by car or walking), had a bus service not been available.

In many cases, the cost of providing bus services is greater than other costs that might be offset. We consider that given that these services are being provided, fares should be set at levels which enable the target group of users to access these services.

³² NRMA submission to Draft Report, November 2017, pp 1-2.

³³ Individual (Anonymous) submission to Draft Report, November 2017, p 10.

3.2 Set fares for current bus services to improve access to current bus services for local communities

In line with the above finding, we consider the maximum fares for NSW rural and regional bus services should be set at levels that better ensure people with limited transport options have reasonable access to their local communities. Therefore, for this review we have set fares using an approach that places significant weight on the willingness and capacity of users (and potential users) of rural and regional bus services to pay for the services, while still having regard to the other factors we are required to consider.

Our approach involved:

- ▼ Assessing rural and regional bus users' willingness and capacity to pay for the services based the available evidence, including:
 - feedback from submissions and surveys, including the survey we commissioned by ORIMA
 - comparisons of the current maximum fares with Sydney metropolitan bus fares, other Opal fares, and fares in other jurisdictions
 - analysis of the current fares as a proportion of weekly disposable income, and
 - analysis of how use of the current services is likely to change in response to fare changes.
- ▼ Assessing the benefits and costs of simplifying the current fare structure.
- ▼ Setting fares for single journeys for the year starting 5 March 2018 by adjusting the current maximum fares based on the findings of steps 1 and 2 above, and with regard to the other factors we are required to consider in setting fares.
- ▼ Considering whether to set discounted fares for frequent travel and journeys that involve transferring services based on willingness to pay and reasonable access.
- ▼ Considering the appropriate length of the determination period and method for setting fares over this period.

This fare setting approach is consistent with the feedback we received from stakeholders, most of which supported an approach that prioritises improving people's access to bus services and affordability over other factors (see Box 3.4). Our draft decisions on fares are discussed in Chapters 4 and 5.

Box 3.4 Stakeholder views on fare setting approach

Most stakeholders who commented on the approach for setting rural and regional bus fares supported prioritising access to affordable services over other factors. For example:

- ▼ Brewarrina Shire Council submitted that we should place greater significance on the essential nature of the service being provided rather than cost recovery.³⁴
- ▼ BusNSW submitted that there needs to be better incentives for customers to use bus services in rural and regional areas.³⁵
- ▼ Byron Shire Council submitted that benefits to customers should be maximised and noted that those using public transport are more vulnerable.³⁶
- ▼ The Combined Pensioners & Superannuants Association of NSW submitted that for many people, public transport is their main connection to the broader community.³⁷

3.3 Consider how public transport can be provided more cost-effectively over time

Our third main step for this review was to consider how public transport that ensures people have reasonable access to their local communities can be delivered more cost-effectively over time. We explored two main possibilities:

1. Delivering the same level of service – that is, the contracted bus services – for a lower cost by improving the efficiency of bus contract costs over time.
2. Delivering a better level of service – and thus attracting higher usage – for the same cost by developing on demand services.

Our final findings and recommendations on delivering the same level of service for less cost are discussed in Chapter 6, while those on delivering a better service for the same cost are set out in Chapters 7 to 9.

3.4 Consider issues related to cross border travel and concession eligibility and fares

The steps outlined above cover all the issues the Minister’s letter of referral requires us to consider for this review except for those related to:

- ▼ travel across borders, and
- ▼ eligibility of concession fares in NSW and the level of subsidy provided by the NSW Government

Therefore, the final main step for this review was to consider each of these issues. Our final findings and recommendations are discussed in Chapters 10 and 11.

³⁴ Brewarrina Shire Council submission to IPART Issues Paper, June 2017, p 1.

³⁵ BusNSW submission to IPART Issues Paper, June 2017, p 1.

³⁶ Byron Shire Council submission to Issues Paper, June 2017, p 7.

³⁷ Combined Pensioners & Superannuants Association of NSW submission to IPART Issues Paper, June 2017, p 3.

4 Setting maximum fares for single journeys

As Chapter 3 discussed, our approach for rural and regional bus fares aims to set these fares at levels that ensure people with limited travel options have reasonable access to their local communities. This approach involves setting maximum fares based on:

- ▼ our assessment of people's willingness and capacity to pay for these services (and having regard to the other factors we are required to consider), and
- ▼ our assessment on the benefits and costs of simplifying the current fare structure.

The sections below provide an overview of our decisions on fares for single journeys, and then explain why we reached these decisions, based on the findings of these assessments.

4.1 Overview of decisions on fares for single journeys

The fares for most journeys are considerably lower than the current maximum fares. They are likely to better reflect people's willingness and capacity to pay for the bus services in rural and regional areas, which should help facilitate reasonable access to communities for those with limited travel options. Our fares should improve value for money for bus users, and improve equity between rural and regional bus users, and those in other areas, as they are more closely aligned with metropolitan (Opal) bus fares and fares in other jurisdictions.

We decided to maintain the current section-based fare structure for single journeys while at the same time reducing the maximum fare levels and simplifying the fare structure by consolidating the current 220 fare sections into just 10 fare bands.

Under our decisions, we expect the average adult fare to decrease by around 29% in 2018.³⁸ This decrease is slightly higher than in our draft report as we have now included journeys of 1-2 sections in the first fare band.

Final decision

- 1 The maximum adult fares for single journeys be set as shown in Table 4.1.

³⁸ This assumes that all concession journeys are taken at the adult fare.

Table 4.1 Final decisions on adult fares for single journeys from 5 March 2018 (nominal, including GST)

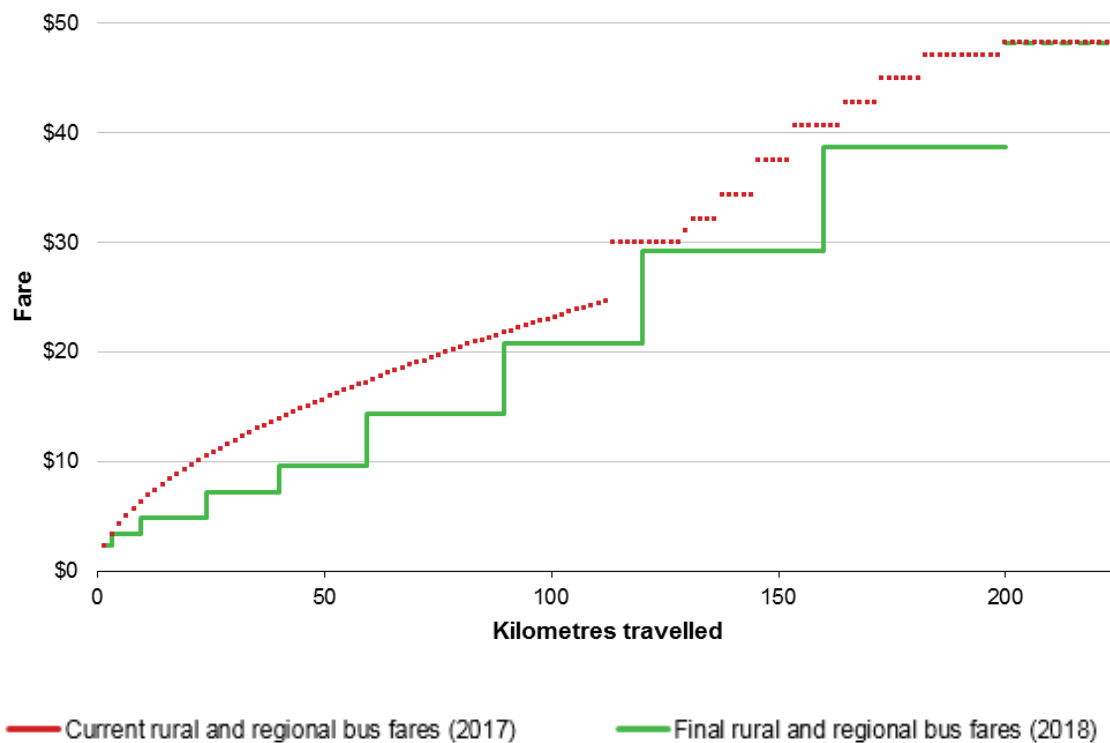
Fare band	No. sections	Current maximum fares	Final maximum fares		
			2018	2019	2020
1	1 to 2	\$2.30 - \$3.40	\$2.30	\$2.40	\$2.40
2	3 to 6	\$4.30 - \$6.30	\$3.40	\$3.50	\$3.60
3	7 to 15	\$6.90 - \$10.50	\$4.90	\$5.00	\$5.10
4	16 to 25	\$10.80 - \$13.90	\$7.20	\$7.40	\$7.60
5	26 to 37	\$14.20 - \$17.20	\$9.60	\$9.80	\$10.10
6	38 to 56	\$17.50 - \$21.80	\$14.40	\$14.80	\$15.10
7	57 to 75	\$21.90 - \$30.00	\$20.80	\$21.30	\$21.90
8	76 to 100	\$30.00 - \$40.70	\$29.20	\$29.90	\$30.70
9	101 to 125	\$40.70 - \$48.20	\$38.70	\$39.70	\$40.70
10	126+	\$48.20 - \$60.00	\$48.20	\$49.40	\$50.60

Note: Sections are an average of 1.6 km over the total length of a bus route, but may vary between 1.3 km and 1.9 km.

BusNSW and several operators raised concerns about implementing the distance-based fares we proposed in our Draft Report. Many older ticketing systems (such as CircuitLink) do not have real-time GPS tracking. This means that operators would not be able to automatically issue tickets based on route distance without reconfiguring their ticketing systems and remapping bus stops and routes. Future systems may be better able to implement distance-based fares. Given these issues, we decided to maintain section-based fares that operators can implement using existing ticketing systems.

While the fares for longer journeys are significantly lower than the existing fares, fares for very long distance travel (more than 100 sections) will not change significantly. These journeys will continue to be around \$40 and \$50 because we consider that passengers travelling these distances have a higher willingness to pay for these journeys. This is because they are likely to provide occasional access to other communities rather than regular access to local communities, and people are generally willing to pay more for occasional trips (because they represent a lower proportion of their budget overall). The fares are also comparable to the cost of taking similar distance journeys on commercial coach services.

Figure 4.1 Comparison of final fares and current fares from 5 March 2018 (\$2018)



Data source: IPART, *Bus Industry Cost Index (BICI) Fare change from 1 January 2017, 2016.*

Given the significant changes to fare levels, we are setting fares for three years only. This will allow us to review the impacts of fares on patronage, operators and the Government, and also consider new developments in the market. The new fares will take effect from 5 March to allow bus operators time to implement our new fares using existing ticketing systems, in particular the new daily ticket.

Our decision also indexes fares in each year of the determination by the expected CPI, which should reflect the change in customers’ willingness to pay over time.

Our decision on fares for single journeys should assist in achieving better taxpayer value for money by increasing the patronage of rural and regional bus services and thus lowering the cost per passenger journey.

4.2 No passengers will pay more than they currently do

Our decision to set lower maximum fares reflects our assessment of people's willingness and capacity to pay, particularly our findings that:

- ▼ current fares for rural and regional bus services in NSW are a barrier to their use, and lower fares are likely to increase patronage of these services, and
- ▼ these fares are significantly higher than bus fares charged elsewhere in Australia and NSW.

4.2.1 Current fares for rural and regional bus services are a barrier to use

The overwhelming theme we heard from stakeholders was that current fares are too high for the services offered. Some argued that the cost of fares "is a major barrier to use public transport for people who can't get a concession".³⁹ Under the current fares, some passengers with limited transport options are choosing not to travel by bus because it is too expensive. Instead, they are choosing to forgo some journeys, or waiting until they can get a lift into town with friends or family.

In our online survey, when asked about the changes they would like to see in their local bus service, many respondents said a reduction in fares. Many also said cheaper fares would encourage them to use bus services more often. For example:

- ▼ "For myself and 3 kids to get return trip from home to CBD, it is cheaper to get taxi... If it wasn't so expensive, I would probably use the bus service regularly."
- ▼ "I currently don't use the bus, but if it were cheaper cost and included on the Opal network it would mean I was more likely to use the bus..."

In submissions to our Issues Paper, many stakeholders highlighted the high cost of bus services to their local communities. For example,

- ▼ "Unlike the Metropolitan areas people in regional NSW generally catch the bus because they have no choice. They are generally on fixed incomes, never held a drivers licence, etc. The best public transport service in the world is no good if the target group of passengers cannot afford the service. Many regional fares are unattainable for the people that need to access basic services such as Centrelink."⁴⁰
- ▼ For those using bus services to access work or study, many need to travel multiple times a week from one town to the next.⁴¹ Travelling from Mullumbimby to Lismore's Southern Cross University (65 km) currently costs \$58 per week for 8 bus journeys at the concession (student) fare.

In submission to our Draft Report, stakeholders generally supported reducing fares.⁴²

³⁹ Confidential source.

⁴⁰ Anonymous submission to IPART Issues Paper, 30 May 2017, p 1.

⁴¹ Byron Shire Council submission to IPART Issues Paper, 27 June 2017, p 9.

⁴² See BusNSW submission to Draft Report, p 1 and NRMA submission to Draft Report, November 2017, p 2.

Lower fares are likely to increase the number of trips

We found that the demand for rural and regional bus services is likely to be reasonably sensitive to fare changes, and so fare reductions are likely to increase the number of trips made on these services.

The demand for public transport services is affected by the demographic characteristics of the area, including the number of potential users (residents and visitors), their age and income profile, and the employment rate. The price elasticity of demand (ie, the extent to which demand responds to changes in fares) also tends to vary by the reason for the trip and type of traveller. Previous studies have found that demand for discretionary trips (such as shopping or recreational activities) tends to be more responsive to fare changes than the demand for non-discretionary trips (eg for work, business, or medical reasons).

The ORIMA Research survey we commissioned for this review found that the common reasons respondents gave for bus travel were shopping (63%), followed by social/recreation (39%). Bus trips for work/business represented a smaller proportion (28%).⁴³ This finding suggests many current users of the services are price sensitive, and therefore it would be reasonable to expect that these users may travel more often as a result of lowering fares.

At our public hearings in Coffs Harbour, several bus operators noted that they did not expect a significant increase in patronage from reducing fares.⁴⁴

In our view, additional trips as a result of fare reductions would more likely to be made by existing customers, who might take a couple of extra journeys during a week, rather than by customers switching from cars. This is because even with lower fares, cars are likely to provide more value to customers than using a bus to make the same journeys, due to:

- ▼ the relatively low costs of driving, with few additional costs such as parking and tolls, unlike city areas,
- ▼ significantly faster journey times than buses – many of which have circuitous routes, infrequent services and poor connections
- ▼ greater convenience as it provides a ‘door-to-door’ service.

4.2.2 Current fares for rural and regional buses are significantly higher than elsewhere

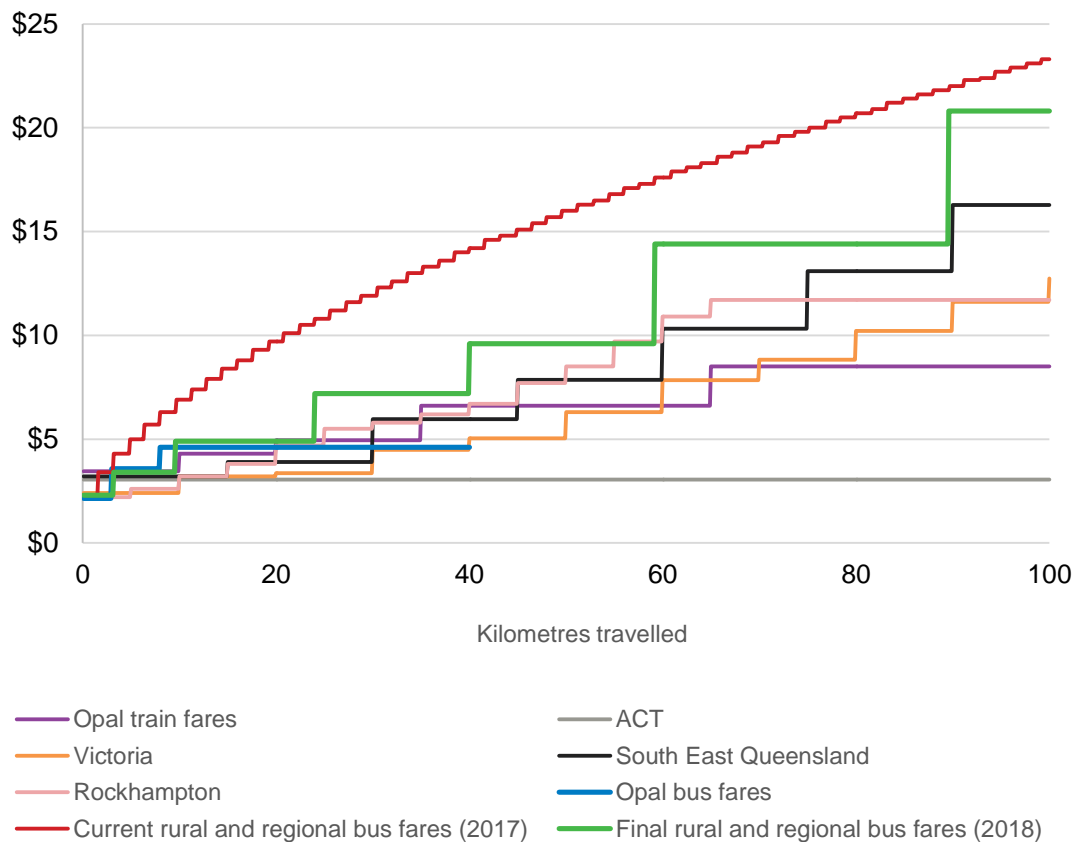
We found that the current maximum fares are significantly higher than bus fares in the bordering jurisdictions – Queensland, Victoria, and the ACT. For example, the fare for a return 10 km journey in NSW is \$13.80, which is double the fare (\$6-7) for an equivalent journey in these other jurisdictions. The current fares are also much higher than Opal fares for most journeys.

Figure 4.2 compares the current maximum fares with bus fares in these other jurisdictions and our fares. It shows that for all journeys over 5 km, the current fares are materially higher than these other fares.

⁴³ ORIMA, *Survey of rural and regional buses and on-demand transport services*, 9 August 2017, pg 11. Multiple responses were allowed so the percentages of responses do not add up to 100%.

⁴⁴ Buslines Group, Forest Coach Lines and Blanch’s Bus Company comments at Public Hearing Coffs Harbour, November 2017, pp 7-8.

Figure 4.2 Current maximum bus fares in rural and regional NSW compared with fares in other areas and jurisdictions and IPART fares (up to 100 km)



Source: NSW Government, Opal, *Opal fares*, <https://www.opal.com.au/en/opal-fares/>, accessed 28 September 2017, Translink, *Fares*, <https://translink.com.au/tickets-and-fares/fares-and-zones/current-fares>, accessed 28 September 2017, ACT Government TC Transport Canberra, *MyWay and Cash Fares*, <https://www.transport.act.gov.au/myway-and-fares/fares>, accessed 28 September 2017, Public Transport Victoria, *Victorian Regional Bus Fares Supplement*, Effective 1 January 2017, https://static.ptv.vic.gov.au/PTV/PTV%20docs/Ticketing/1488156190/PTV_Regional-Bus-Fare-Supplement_2017.pdf, accessed 28 September 2017.

For very short distance journeys fares in south east Queensland and the ACT are higher than in NSW. The current maximum fare for a 2 km journey in rural and regional NSW is \$2.30 compared to \$3.06 in the ACT and \$3.20 in Queensland.

We note that the higher fares in these other jurisdictions suggest that people in NSW are likely to have the capacity to pay more for these short trips. Setting fares in line with other jurisdictions could also facilitate improved service provision across borders.

For these reasons, we considered whether shorter distance fares should be higher in line with fares in other states.

We are making a number of other substantial changes as part of this review, including simplifying the number of fare bands, and how fares should be changed from year to year. In order to properly assess the impact of each of these individual changes, our final decision is to stage substantial changes over time. Therefore we decided that the fare for very short distance trips will remain constant for 2018, and we will reconsider whether very low fares for short trips remain appropriate when we determine fares again in three years' time.

NRMA endorsed our approach of maintaining maximum fares for shorter trips (0-3km) at current levels as they are similar to metropolitan areas and in line with bordering state fare structures.⁴⁵

Tamworth Regional Council noted that operators that are currently charging below the maximum fare could potentially increase fares under our final determination making some passengers worse off.⁴⁶ We consider that the likelihood of this is low, given that operators currently retain all fare revenue and increasing fares further would be likely to result in lower patronage and fare revenue. We also note that many operators have been charging lower fares to date even though there are higher maximum fares allowed under the determination.

4.3 For longer distances, fares are comparable with those for commercial coach services

Our final decision to set maximum fares for long distance journeys (eg, 100 km+) reflects our findings on willingness and capacity to pay, and takes account of the need for greater efficiency in the supply of services.

One individual (G Pund) argued that fares for longer distance journeys should be capped at \$30 return to ensure that services in more isolated areas are affordable for non-concession passengers.⁴⁷

In our view, the vast majority of journeys above 100 km are likely to be occasional journeys, more akin to those made by commercial coach services than local bus services. For example, we identified only a handful of rural and regional contract routes that extend beyond 100 km, and on these routes, most passenger journeys are significantly shorter than 100 km. Overall, we estimate that less than 3% of all passenger journeys on rural and regional buses exceed 100 km.⁴⁸

For these journeys, willingness to pay is likely to be higher than for journeys made more frequently (which have a much larger impact on weekly budget). We consider the fares for commercial coach services are a reasonable proxy for people's willingness and capacity to pay for longer journeys. Our analysis found these fares vary widely, depending on the operator and location of the journey (Figure 4.3). For most longer journeys, we set the fares close to the middle of this range.

We consider that setting fares for longer journeys lower than this would risk "crowding out" commercial operators who provide services between regional centres and thus reduce competition. In contrast, setting fares that are comparable to commercial coach fares should promote competition, which, in the long run, could remove the need to provide taxpayer funded services for purposes other than providing access to local communities.

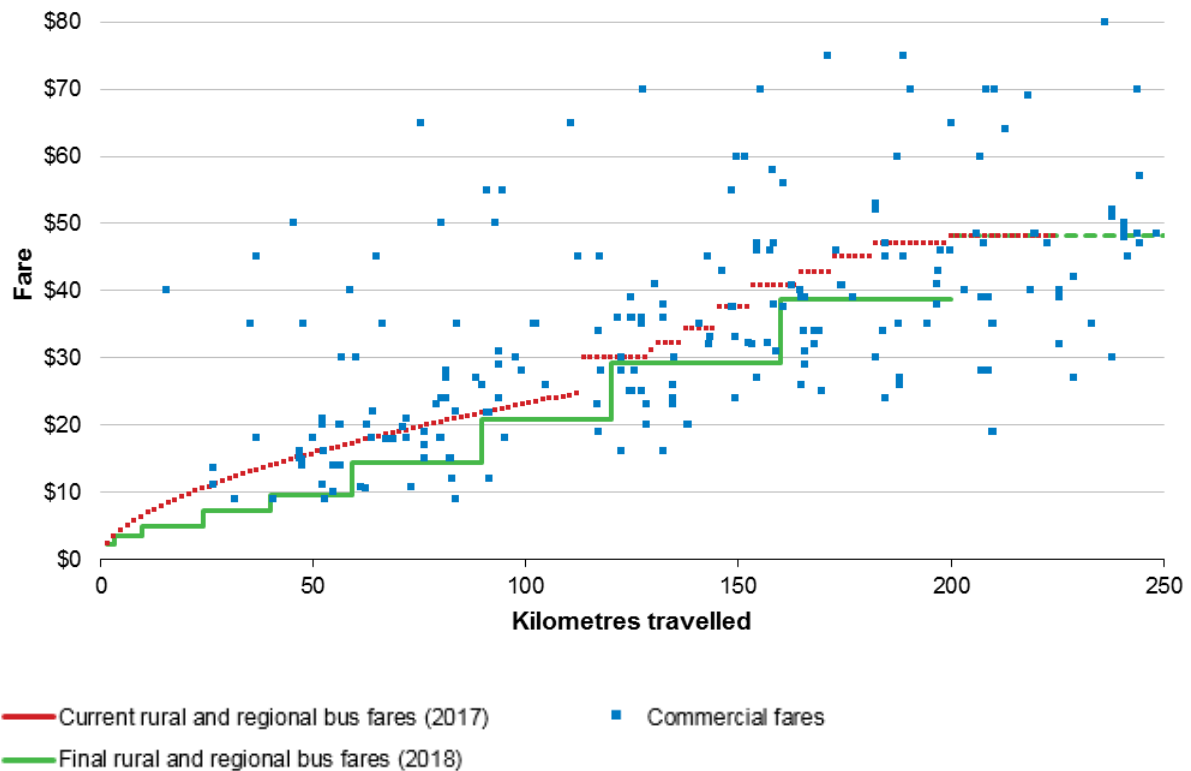
⁴⁵ NRMA submission to Draft Report, November 2017, p 2.

⁴⁶ Tamworth Regional Council submission to Draft Report, November 2017, pp 8-10.

⁴⁷ Individual (G Pund) submission to Draft Report, November 2017, p 1.

⁴⁸ We estimated that in 2016 the number of journeys above 100km would amount to less than 3% of the total number of journeys on rural and regional buses.

Figure 4.3 Comparison of final fares with those of commercial coach operators (\$2018)



Note: Current fares have been inflated by CPI to January 2018 price levels. Fares for journeys beyond 225km are no longer relevant, since no such routes fall under IPART’s determination.

4.4 Benefits of simplifying fare structure outweigh costs

Our decision on maximum fares for single journeys includes a simpler fare structure that consolidates the current 220 fare sections into 10 fare bands. This reflects our finding that the benefits of simplifying the fare structure outweigh the costs.

4.4.1 A simpler fare structure is easier for users and more efficient for bus operators

Our simpler fare structure means that there are only 10 different maximum fares for rural and regional bus services rather than the current 220, which increase for every 1.6 km travelled. This is easier for users to understand, and simpler and more efficient for bus operators to administer.

This simpler fare structure is also more consistent with those in bordering jurisdictions. For example, regional Victorian fares increase in approximately 10 km increments, and at the end of 2016, South Queensland recently consolidated its 23 fare zones down to eight.⁴⁹

⁴⁹ Queensland Government, *Fairer fares for South East Queensland*, June 12 2016, <http://statements.qld.gov.au/Statement/2016/6/12/fairer-fares-for-south-east-queensland>

Stakeholders supported simplifying the fare structure.⁵⁰ Some also proposed alternative structures, including:

- ▼ A smaller number of fares bands, such as the three Opal fare bands (0-3km; 3-8km; and 8km+)⁵¹
- ▼ A flat fare for journeys between towns.⁵²

We do not agree that the Opal fare bands are appropriate for rural and regional bus fares as trip characteristics are significantly different in rural and regional areas. For example around 40% of passenger journeys in rural and regional areas are greater than 8 km, compared to only 14% in Opal areas. However, we note that fares for passengers travelling between 1.6 km and 10 km will be cheaper than Opal fares.

We also considered whether to provide a more 'flat' fare structure in town – for example, the same fare for all journeys less than 10 km. However, this would have meant that the fares for the very shortest distance band would have increased substantially. For this determination we have materially simplified the fare structure, so that there will only be two fare bands for journeys less than 10 km (instead of 6). As noted in Section 4.2 above, there might be a higher willingness to pay for some of these short distance journeys, and so one fare band might be appropriate, however we will consider this issue in more detail in our next determination period.

4.4.2 Costs of implementing new fares are minimal

The costs of moving to a simpler fare structure are likely to be minimal. We note that many bus operators have already consolidated the current fare schedule, and charge fewer fares. In addition, setting only 10 maximum fares does not preclude operators from having a greater number of fare increments if they wish, provided their fares do not exceed the relevant maximum fare.

One of the costs of having less fare bands is that the difference between each fare band is much higher, rather than a smooth incremental incline. Customers can then become more reluctant to take a trip that extends into the next fare band because the incremental costs of doing so are higher. However, given that under our fare schedule no customers will be paying more, we consider this would not be a material problem.

4.5 Our final decision is to set fares for 3 years from 5 March 2018

Due to the significant changes in fares from 2018, our final decision is to set fares for three years from 5 March 2018.

Reviewing fares again in three years will allow us to assess the impact of changes in fares under our new determination and review the impact on passengers, operators and the Government. This will also provide an opportunity to assess the impact of fare changes on patronage, which will give us an additional measure of willingness to pay at this time.

⁵⁰ See BusNSW submission to Draft Report, p 1 and NRMA submission to Draft Report, November 2017, p 2.

⁵¹ BusNSW submission to IPART Issues Paper, 27 June 2017, p 5.

⁵² Byron Shire Council submission to IPART Issues Paper, 27 June 2017, p 9.

A 3-year determination would mean that our next review would be completed prior to the expiry of the initial 5-year term of the rural and regional bus contracts. The findings of our next review could be used to inform any changes to contracting arrangements.

In addition, there are likely to be considerable developments in on demand services over the next three years. The Government is trialling several on demand transport services in Sydney and is also planning and trialling services in rural and regional areas. The results of these trials will be available in the next three years and could be used to inform a new determination starting in 2021.

As noted above, BusNSW and several operators raised concerns about implementing the distance-based fares we proposed in our Draft Report and a daily distance-based ticket using existing ticketing systems. Maintaining section-based fares means that operators with older systems can implement the back end changes required to implement our new single fares relatively quickly. However, BusNSW advised that operators would need changes to ticketing system software and driver training to sell and report on daily tickets.⁵³

We have decided that our final fares will take effect from 5 March 2018. This will provide operators with older ticketing systems with sufficient time to make the necessary changes to update their ticketing systems to sell and report on our daily tickets.

Tamworth Regional Council questioned how the changes to fares will be communicated to the community.⁵⁴ We consider that where there are fare reductions, it is important they are well marketed so that local communities are aware of the changes.⁵⁵ In addition, passengers need to be made aware of the new daily ticket.

Final recommendation

- 1 That TfNSW and bus operators promote fare reductions and the new daily ticket in rural and regional areas in 2018.

4.6 Our decision is to set fares in 2019 and 2020 based on adjusting 2018 fares by the expected change in CPI

We consider that the changes in fares in each year of the determination period should reflect changes in willingness and capacity to pay.

We considered a number of options that we could use to adjust fares in 2019 and 2020, including the Pensioner and Beneficiary Living Cost Index (PBLCI), the change in the Wage Price Index (WPI), and the Bus Industry Cost Index (BICI). Figure 4.4 shows that each of these methods can result in slightly different levels of bus fares over time. We discuss each of these options further Box 4.1.

⁵³ BusNSW submission to Draft Report, November 2017, p 2.

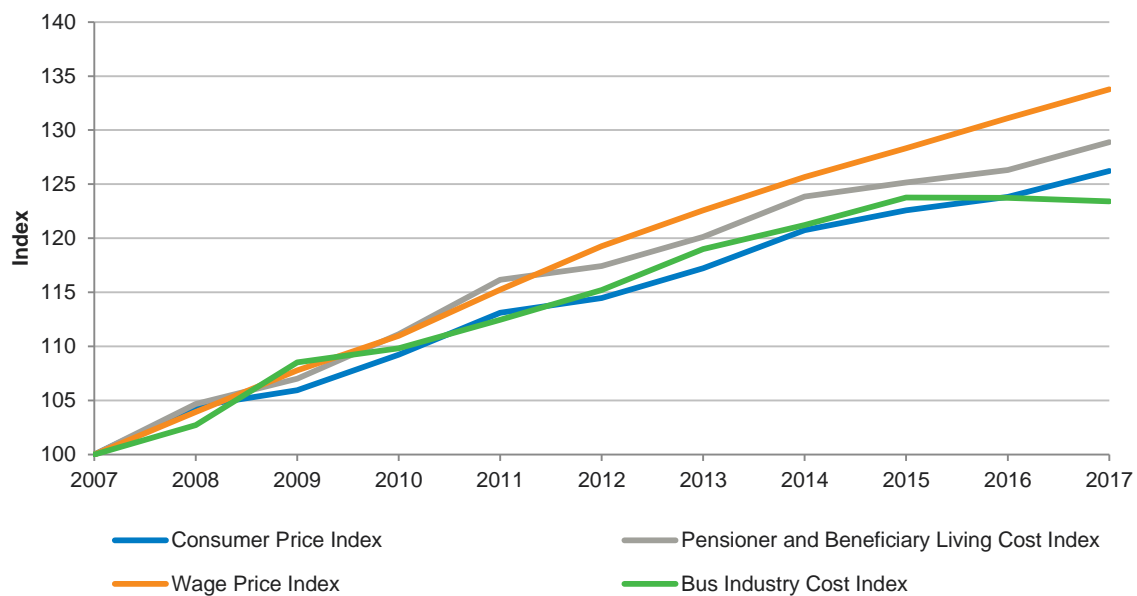
⁵⁴ Tamworth Regional Council submission to Draft Report, November 2017, p 11.

⁵⁵ We note that many operators currently charge below the maximum and so would not need to reduce fares from 5 March 2018.

We decided to set fares for 2019 and 2020 by indexing 2018 fares by the expected change in CPI. CPI is the basis for indexing pensions and allowances.⁵⁶ In rural and regional areas of NSW, trips made by school students represent 87% of the total bus trips.⁵⁷ Of the remaining 13%, more than 80% of these trips are made by passengers paying half fare or using the RED tickets, who are recipients of various Australian Government payments. As a result, the inflation rate is likely to influence passengers' willingness and capacity to pay over time in rural and regional areas.

Setting fares in 2019 and 2020 by the change in the CPI would maintain the real value of fares over the determination period.

Figure 4.4 Cumulative changes in various indices considered for adjusting fares



Note: Indices in 2007 are set to 100 and are as of June each year.

Data source: ABS and IPART.

⁵⁶ Pensions are adjusted by the greater of the movement in the CPI or the Pensioner and Beneficiary Living Cost Index (PBLCI), implying pensions will increase at least by the rate of inflation. Other income support payments are indexed in line with movements in the CPI.

[https://www.dss.gov.au/about-the-department/benefits-payments/previous-indexation-rates;](https://www.dss.gov.au/about-the-department/benefits-payments/previous-indexation-rates)
<https://christianporter.dss.gov.au/media-releases/a-welcome-increase-for-recipients-of-australian-government-payments> accessed 28 August 2017.

⁵⁷ Based on information from TfNSW on Large and Medium operators

Box 4.1 We considered several other measures for indexing fares

Pensions are adjusted using either the Consumer Price Index (CPI) or the Pensioner and Beneficiary Living Cost Index (PBLCI). The PBLCI reflects changes in the living costs of pensioners and other households receiving income support from the government. Adjusting fares by the PBLCI would have an advantage of more closely aligning fare increases with the changes in income for most rural and regional bus passengers. However, the changes in the PBLCI have not been materially different from those in the CPI over the last several years. As a result using the PBLCI would increase complexity with limited added benefit.

We also considered changing fares each year by the change in the Wage Price Index (WPI) as measured by the total hourly rates of pay (excluding bonuses) across all industries and occupations in NSW. However we consider the WPI is a less relevant measure of passengers' willingness and capacity to pay in rural and regional areas as the majority of bus passengers are not in the workforce.

Finally, we considered the option of continuing to adjust fares each year by the Bus Industry Cost Index (BICI), as we have done in previous reviews. The bus cost index is similar to CPI, except rather than measuring changes in the costs across the whole economy, it only estimates the changes in the costs of providing bus services (such as fuel, labour and insurance costs). Adjusting fares each year with changes of cost would not be consistent with our fare setting principle to reflect passengers' willingness and capacity to pay. It would also mean that IPART would have to calculate this index each year, as well as adjust the weightings periodically to make sure that the index continues to reflect the cost structure of the industry, which would be administratively burdensome.

4.7 Opal ticketing on buses around Opal enabled stations is a matter for Government

One Individual (Anonymous) recommended that Opal should be enabled on rural and regional bus services that connect to Opal enabled train services (eg, Bathurst and Goulburn). They argued that this would improve equity and encourage more bus patronage.⁵⁸ On Monday 20 November the Government announced that it would fund Lithgow Buslines waiving the bus fare for pensioners connecting to train services (see below for further details).

As noted above, Government is trialling the use of contactless payments over the next three years. We consider that the results of these trials will give TfNSW better information to decide on the rollout of an electronic ticketing system for rural and regional buses.

We also note that including rural and regional bus services in the Opal system does not necessarily mean the maximum fares for the services would be set at Opal fares as the costs and patronage of providing rural and regional services differ from Opal services.

⁵⁸ Individual (Anonymous) submission to Draft Report, p 12.

5 Fares for frequent travel

Discounts for frequent use are common for transport services around the world. Many jurisdictions offer daily or weekly caps, multi-trip tickets, or discounts for journeys made on electronic tickets after a certain number of journeys have been made.

Under our previous rural and regional bus reviews, we have only set maximum fares for single journeys, and we did not consider whether to set daily or weekly fares. However, some rural and regional bus operators offer these discounted tickets to their customers because they are able to offer fares below our maximum fares.

This chapter explains our decisions on whether to introduce new maximum fares for travel across a week or over a day.

5.1 Overview of our decisions on fares for frequent travel

Our decision is to introduce a new daily ticket, which is set at different prices for travel across different sections, set out in Table 5.1.

As noted in Chapter 4, BusNSW and several operators raised concerns about implementing the distance-based fares including distance-based daily tickets that we proposed in our Draft Report. In response to these concerns we decided to maintain a section based fare structure for the daily ticket to commence on 5 March 2018.

We consider that a discounted daily ticket may encourage customers to make an additional discretionary return journey, because the daily ticket would be less than the cost of making two return journeys using single tickets.

Final decision

2 The maximum adult daily ticket be set as shown in Table 5.1.

Table 5.1 Final decisions on adult daily ticket from 5 March 2018 (nominal, including GST)

Fare band	No. sections for longest trip during day	Final daily ticket		
		2018	2019	2020
1	1 to 2	\$6.90	\$7.20	\$7.20
2	3 to 6	\$9.10	\$9.40	\$9.60
3	7 to 15	\$12.10	\$12.40	\$12.60
4	16 to 25	\$16.70	\$17.20	\$17.60
5	26 to 37	\$21.50	\$22.00	\$22.60
6	38 to 56	\$31.10	\$32.00	\$32.60
7	57 to 75	\$43.90	\$45.00	\$46.20
8	76 to 100	\$60.70	\$62.20	\$63.80
9	101 to 125	\$79.70	\$81.80	\$83.80
10	126+	\$98.70	\$101.20	\$103.60

We have decided not to introduce weekly tickets at this point in time. As a result of our decision to significantly reduce the fares for single tickets, most customers that travel regularly during a week will realise significant cost reductions for weekly travel, compared to what they pay now. We would like to assess the impact of our decision on single fares on patronage and fare revenue as part of our next review before we decide to reduce the fares for these journeys even further.

5.2 Introducing a daily ticket

We consider that a daily ticket can be set in a way that encourages **additional** discretionary journeys to create more fare paying trips and revenue, while minimising the risk of further reducing fare revenue from current levels.

Our decision to introduce a daily ticket was supported by the Combined Pensioners and Superannuants Association of NSW.⁵⁹ BusNSW noted that a new daily ticket would require changes to ticketing system software and driver training.⁶⁰ We consider that a section-based daily ticket is easier than a distance-based daily ticket for bus operators to implement and that bus operators can make changes to their ticketing systems so that the changes come into effect by 5 March 2018.

As explained in Chapter 4, trips for work or education tend to be less price responsive than journeys made for discretionary travel because they are more likely to be made regardless of price. But because only two trips a day would be made to/from work or education, any additional trips would more often be for discretionary purposes like leisure and shopping. Therefore offering lower fares for any additional trips **during a day** can help encourage additional demand and increase revenue.

⁵⁹ CPSA submission to IPART Draft Report, November 2017, p 3.

⁶⁰ BusNSW submission to IPART Draft Report, November 2017, p 2.

Box 5.1 Quantity discounts are common across different industries

Quantity discounts are a common form of price discrimination (known as, “second-degree price discrimination”), where the price falls for each additional good consumed reflecting customers higher price sensitivity as the quantity consumed increases. There are a number of reasons that customers can become more price sensitive as they buy more of a good or service, including that:

- ▼ total expenditure represents a larger proportion of total budget
- ▼ large users are often business customers who have strong commercial incentives to get the best deal, and
- ▼ the marginal utility may fall for each additional unit consumed.

The first of these is most relevant to public transport fares.

5.2.1 How we set the daily fare

In setting the daily cap, we looked at how other states determine their prices. Victoria and regional Queensland set their daily tickets at two times the single fare, whereas the ACT sets the daily cap at 3 times the single fare. For Opal journeys, a flat rate is set across the network. Table 5.2 shows that this results in a range of effective discounts for a variety of journeys.

Table 5.2 Jurisdictional comparison of daily fares (\$2017)

Region	Daily ticket	1km journey			15 km journey		
		Single fare	2 Return trips	Discount with daily ticket	Single fare	2 Return trips	Discount with daily ticket
IPART Final NSW R&R (\$2018)	2 x single fare plus \$2.30	\$2.30	\$9.20	25%	\$4.90	\$19.60	38%
Sydney and surrounds (Opal card)	\$15.40	\$2.15	\$8.60	-79%	\$4.61	\$18.44	16%
Gold Coast, Sunshine Coast and Brisbane	n/a	\$3.20	\$12.80	0%	\$3.90	\$15.60	0%
Toowoomba	Rover daily \$6.40	\$2.20	\$8.80	27%	\$4.40	\$17.60	64%
Regional Queensland	2x single fare	\$2.20	\$8.80	50%	\$4.50	\$18.00	50%
Regional Victoria City Category A	2x single fare	\$2.40	\$9.60	50%	\$3.20	\$12.80	50%
ACT	\$9.20	\$3.06	\$12.24	25%	\$3.06	\$12.24	25%

Source: NSW Government, Opal, *Opal fares*, <https://www.opal.com.au/en/opal-fares/>, accessed 28 September 2017, NSW Government, Opal, *Opal benefits*, <https://www.opal.com.au/en/about-opal/benefits-of-travelling-with-opal-card/>, accessed 28 September 2017, Translink, *Fares*, <https://translink.com.au/tickets-and-fares/fares-and-zones/current-fares> and <https://translink.com.au/tickets-and-fares/fares-and-zones/current-fares#O>, accessed 28 September 2017, ACT Government TC Transport Canberra, *MyWay and Cash Fares*, <https://www.transport.act.gov.au/myway-and-fares/fares>, accessed 28 September 2017, Public Transport Victoria, *Victorian Regional Bus Fares Supplement*, Effective 1 January 2017, https://static.ptv.vic.gov.au/PTV/PTV%20docs/Ticketing/1488156190/PTV_Regional-Bus-Fare-Supplement_2017.pdf, accessed 28 September 2017.

Note: Fares for Regional Victoria City Category A return trips assume that no two trips are within the same 2 hours.

We consider that the daily caps should be set at **more than** the fare for a return journey. This would allow any subsequent journeys to produce additional fare revenue.

We have set the daily cap equal to the return fare for the longest journey taken (two times the single fare), plus one 0-2 km fare (\$2.30 in 2018). For example, if a passenger made a return 15 km journey, plus a return 2 km journey, they would pay \$12.10, which is 2 times \$4.90, which is the single 15 km fare, plus \$2.30. Therefore the daily fare is a cheaper option than paying for all fares individually. Without a daily cap, they would pay an additional \$2.30 for the return leg of the second return journey.

This can encourage customers to make greater use of public transport across a day, because the second leg of any additional return journey is free. Passengers whose second return journey is longer than 2 km, will receive an even bigger discount on this journey. At the same time the second journey produces more revenue compared to if just one return journey is taken that day, which helps to recover the costs of providing services.

5.2.2 A daily ticket can overcome the ‘transfer penalty’ of switching operators

Currently, passengers taking journeys that involve two trips using the same bus operator do not incur a transfer penalty (ie, the passenger can buy one ticket that covers the number of sections between their origin and destination even if this involves catching two buses). However, under our determination, passenger journeys that involve two trips on different bus operators’ services would be required to buy two single tickets.

The daily ticket could overcome the ‘transfer penalty’ that arises from changing operators to complete a bus journey. Unlike transfers between buses with the same operators⁶¹, journeys that involve switching between operators currently incur a transfer penalty because passengers are charged the full cost of both fares.

For example, under our proposed fares, a customer would pay \$9.80 to make a return 15 km journey, but up to \$16.60 if they needed to transfer services across different operators (2 x \$4.90 for a 12km leg plus 2 x \$3.40 for a second 3 km leg)). A return journey made with a daily ticket would cost less than this, at \$12.10.

While there is a single maximum fare schedule that applies to all private bus operators in rural and regional NSW, all operators currently have different fare levels and structures with some offering multi-trip discounts. They also have their own ticketing systems, which makes transfers between different bus operators difficult.

Our decision is that a daily ticket bought in one region must be accepted by operators in surrounding regions. We think this would occur in practice in very few instances, and therefore would not have a material impact on operators’ revenue.

While we do not have information on the percentage of paid bus journeys in rural and regional NSW involving more than one bus:

- ▼ ORIMA Research’s survey shows that 26% of respondents who had used bus services in the last six months used a Regional Excursion Daily (RED) ticket⁶², and
- ▼ Of those who did not use a RED ticket, the majority of passengers make short trips.⁶³ As short trips are unlikely to involve transfers to buses serviced by different operators, the transfer penalty is unlikely to be a major deterrent to bus use in rural and regional NSW.

5.2.3 A return ticket valid across operators should not be introduced at this time

Currently, journeys that involve two trips using the same operator do not incur a transfer penalty (ie, passengers can buy one ticket that covers the number of sections between their

⁶¹ We found that transfers between buses within the same operator do not necessarily incur any ‘transfer penalty’ – the additional fare paid by people who transfer from one bus to another. Several bus operators already have a system that allows transfers between buses at no extra cost within their service area. Passengers can make multiple transfers with only one fare being charged based at the beginning of the first journey on the number of sections travelled between the origin and destination of the entire journey. For example, a trip from Thurgoona to Norris Park (served by Martin’s Albury) involves a transfer in Centro Lavington. For this trip, a passenger simply needs to advise the first bus driver of their final destination to purchase a ‘transfer ticket’ and then show it to the next driver when making a transfer. Busabout Wagga also issues a similar transfer ticket.

⁶² ORIMA, *Survey of rural and regional buses and on-demand transport services*, 9 August 2017, p 11.

⁶³ *Ibid.* We estimated that around half of the journeys made are less than 5 km.

origin and destination even if this involves catching two buses). Our final determination maintains this arrangement.

However, passenger journeys that involve two trips on different bus operators' services would be required to buy two single tickets.

Individual (Anonymous) presented an example of a passenger who travels from Thirlmere to Picton using Berrima Buslines (approximately 8 km, 2-10 km fare band) and then on to Narellan using Picton Buslines (approximately 26 km, 25-40 km fare band). Under our draft decision this passenger would pay \$10.60 one way (\$3.40 + \$7.20) or \$21.20 return. Alternatively they could purchase a daily ticket for \$16.70 which is valid across operators. However, Anonymous argued that if there was a return ticket valid across operators, the transfer penalty would be eliminated completely and this passenger would only pay \$14.40 return.⁶⁴

There are several regional cities where there are multiple operators. These include Nowra, Coffs Harbour, Wagga, and Grafton. In some cases, such as Wagga, one operator provides the majority of services in the centre of the city, with other operators providing services from outer suburbs or towns into the centre of the city. In other cases, such as Nowra, both operators provide services from suburbs into major shopping, education and employment centres with services overlapping at these points.

Our final decision is not to introduce a maximum fare for return journeys valid across operators at this time. In principle we agree that passengers should not pay a penalty for having to change operators to complete their journeys. Under our final determination and consistent with current arrangements, passengers making journeys that involve switching buses within an operator within 60 minutes, can buy one single journey ticket covering the length of their journey.

However, we note that while there is a single maximum fare schedule that applies across all operators in rural and regional areas, all operators currently have different fare levels and structures with some offering multi-trip discounts. Current ticketing systems may not cope with these differences. In our view, a return ticket valid across operators should not be introduced at this time. Rather it should be considered as part of our next review which would also incorporate any future approach to ticketing systems and the implementation of our daily ticket.

In addition, the aim of our daily ticket is to encourage additional bus travel (see Chapter 6 for further details). We consider that our proposed daily ticket that is valid across operators, coupled with lower fares, provides a suitable approach for minimising the transfer penalty while minimising the impact on bus operators of further reducing fare revenue from current levels.

⁶⁴ Individual (Anonymous) submission to Draft Report, November 2017, p 4-5.

5.3 Our decision is not to introduce a weekly fare at this time

Stakeholders supported weekly caps for frequent users to be set by IPART.⁶⁵ The CPSA argued that a weekly cap equivalent to the Opal network should be introduced because it would incentivise frequent bus passengers to use a bus instead of other modes of transport, in particular for longer distance trips. CPSA also noted that a weekly cap would enhance the equity of fares in rural and regional areas in comparison to Opal and reduce the financial barrier of commuting. Under Opal, passengers receive a 50% discount after 8 journeys and a weekly cap of \$61.60. Submissions stated that caps would make regular commuter travel more affordable, increasing the incentive for more regular use.⁶⁶

Table 5.3 shows that lower fares for regular travel across a week are common across different jurisdictions. However, in most cases only customers that take a very large number of journeys benefit. For example, in Victoria discounts are only offered after 10 journeys have been made over a week, and in the ACT, a customer needs to make 40 journeys in a month.

Table 5.3 Comparison of weekly discounts across jurisdictions

Jurisdiction	Discount for regular travel
Sydney and surrounds (Opal)	50% fares after 8 journeys, and a weekly cap of \$61.60
Victoria	Free fares after 10 journeys
South East Queensland	50% fares after 8 journeys
ACT	Free fares after 40 journeys taken in a month

Source: NSW Government, Opal, *Opal benefits*, <https://www.opal.com.au/en/about-opal/benefits-of-travelling-with-opal-card/>, accessed 28 September 2017, Translink, *Make 8 journeys then travel for half price*, <https://translink.com.au/tickets-and-fares/fares-and-zones/discounts-and-ways-to-save/go-frequently-then-go-for-half>, accessed 28 September 2017, ACT Government TC Transport Canberra, *MyWay and Cash Fares*, <https://www.transport.act.gov.au/myway-and-fares/fares>, accessed 28 September 2017, Public Transport Victoria, *Victorian Regional Bus Fares Supplement*, Effective 1 January 2017, https://static.ptv.vic.gov.au/PTV/PTV%20docs/Ticketing/1488156190/PTV_Regional-Bus-Fare-Supplement_2017.pdf, accessed 28 September 2017.

We note that some rural and regional bus operators currently provide weekly discounts to their users. Surfside in Tweed Heads sets its weekly ticket at eight times the single fare, and a daily fare equal to twice the single fare.⁶⁷ Martins in Albury offers 10-trip tickets at a 20% discount compared to 10 single fares.⁶⁸

The Northern Rivers Social Development Council submitted that rather than leave it to operators to decide whether to put caps in place, IPART is in the best position to set caps that would ensure equity between communities.⁶⁹

⁶⁵ Combined Pensioners & Superannuants Association of NSW Inc submission to IPART Issues Paper, June 2017, p 4; Byron Bay Shire Council submission to IPART Issues Paper, June 2017, p 9; Northern Rivers Social Development Council submission to IPART Issues Paper; June 2017, p 35.

⁶⁶ Northern Rivers Social Development Council submission to Issues Paper, June 2017, p 5; The Northern NSW local health district submission to Issues Paper, June 2017; BusNSW submission to Issues Paper, June 2017, p 5; Anonymous submission to Issues Paper.

⁶⁷ Surfside buslines, *Tickets and fares*, <http://www.surfside.com.au/tickets-and-fares/>, accessed 28 September 2017.

⁶⁸ Martins Albury, *Ticketing*, <http://www.martinsalbury.com.au/ticketing/ticketing-t>, accessed 28 September 2017.

⁶⁹ Northern Rivers Social Development Council submission to Issues Paper, June 2017, pp 3, 5.

We have some evidence to suggest that there are some frequent bus users in rural and regional areas over a week. 25% of respondents to our self-selected online bus survey caught the bus more than 4 times a week. Around half of the respondents to the online survey used the bus for travel to or from work or education.

On balance, our decision is not to determine discounted weekly tickets at this time. This is because most regular bus users would realise significant reductions in their weekly public transport expenditure (up to 45%) as a result of our fares (Table 5.4).

Table 5.4 Change in weekly expenditure for a sample of distances (nominal, based on 10 trips)

Sample distance travelled	Recommended (\$2018)	Current maximum (\$2017)	Change in weekly spend	Change in weekly spend
1 section (1km)	\$23	\$23	\$0	0%
4 sections (5km)	\$34	\$50	-\$16	-32%
10 sections (15km)	\$49	\$84	-\$35	-42%
24 sections (35km)	\$72	\$130	-\$58	-45%
33 sections (50km)	\$96	\$160	-\$64	-40%
66 sections (100km)	\$208	\$232	-\$24	-10%
100 section 150km	\$292	\$375	-\$83	-22%

Additional fare reductions through a weekly ticket could further increase patronage if they encouraged the commuter market to switch from their car to public transport. However, it could further reduce revenue if existing frequent users simply pay less, and material additional demand is not realised.

As explained in Chapter 4, for people who already have cars, we consider that lower fares are unlikely to encourage them to use buses instead, because of the relative value that car travel provides. However, a lower weekly fare may influence people’s decisions about whether or not to buy a car or second car if they do not already have one.

On balance, we consider that we should monitor and assess the impact on patronage of single fare reductions, before determining even further reductions by introducing weekly fares. This would provide us with the opportunity to make future decisions based on customers’ price responsiveness. We note that this decision would not prevent individual operators from continuing to offer weekly discounts.

6 Delivering current bus services for less cost over time

As Chapter 3 discussed, the third step in our approach for this review was to consider how rural and regional bus services can be delivered more cost-effectively over time. One possibility is to deliver the same level of service – that is, the contracted bus services – for a lower cost by improving the efficiency of rural and regional bus operators.

We engaged AECOM to assess the efficient costs of providing the contracted bus services, compare them with the actual costs (ie, the contract costs) of these services, and identify the main reasons for any differences. We considered AECOM’s findings in the context of the current contract arrangements to identify opportunities for the Government to improve the efficiency of the contract costs over time.

We also used AECOM’s findings on the efficient costs and our standard building block methodology to estimate the total efficient cost of providing the contracted bus services over the 2018 determination period. We used this estimate to consider the impact of our fares on cost recovery.

The sections below provide an overview of our findings and recommendations, and then discuss the supporting analysis.

6.1 Overview of findings and recommendations

As noted in Chapter 2, bus operators can be categorised into two groups:

- ▼ ‘school only’ – that provide dedicated school services only, and
- ▼ ‘school and regular’ that provide a combination of dedicated school services and regular passenger services.

We found that on average, the efficient costs of providing rural and regional bus services in 2017 are 20-25% lower than the contract costs of providing school only services and 28-32% lower than the contract costs for school and regular services. In addition, the scope for efficiency savings varies across bus operators. While some operators can make efficiency savings greater than these averages, others are operating closer to efficient costs.

AECOM found that for 43% of school only contracts and more than half of school and regular contracts⁷⁰, the difference between the contract and efficient cost is greater than 25%.

Our findings on the difference between the efficient costs and contract costs are slightly higher than in our Draft Report. In response to stakeholder feedback and updated advice

⁷⁰ For school and regular contracts, AECOM estimated the efficient costs of providing bus services where it had access to sufficient data.

from AECOM we updated several inputs to our estimates of the efficient costs. Specifically we:

- ▼ adopted a range of labour costs based on updated advice from AECOM on wages and allowances in typical bus operator Enterprise Agreements (EAs) in NSW and the *Passenger Vehicle Transport Award 2010* (the Award) as well as revised estimates of allowances and loadings⁷¹
- ▼ increased maintenance costs by 10% to allow for unplanned maintenance⁷²
- ▼ adjusted fuel costs to allow for consumption above original equipment manufacturer (OEM) recommendations
- ▼ increased the purchase price of buses to include the impact of the NSW Government's seat belt program
- ▼ changed the representative bus for Category 4 to a Mercedes O500, and
- ▼ reduced the weighted average cost of capital (WACC) used to estimate the return on capital allowance to 5.2% based on updated market parameters.

The efficient costs are lower than our Draft Report. Increases in maintenance, fuel and purchase price of buses were more than offset by reductions in AECOM's revised labour cost allowances⁷³ and WACC.

We consider that there is an opportunity for the Government to reduce the contract costs and improve the value for money from bus services over time.

The lower ends of our ranges reflect the efficiency savings that can be made **without** any changes to existing labour arrangements. That is, through TfNSW collecting better information on route distances so that it only funds efficient route kilometres, and reviewing the choice of makes and models.

The upper ends of these ranges reflect the efficiency savings that can be made **with** changes to existing labour arrangements. We consider that TfNSW should make more use of competitive tendering to ensure the costs of rural and regional bus services reflect efficient costs.

We note that the Government cannot achieve all improvements immediately, and in some cases, they may not be possible until buses are retired or the current contracts expire in 2024. We consider that our efficient cost estimates should be used as a benchmark for TfNSW and operators to improve the value for money from bus services over time. Over the next three years, we consider that the Government should focus on improving the cost-effectiveness of those operators with cost structures that are significantly different to their peers.

However, our approach to setting fares means that the current cost inefficiencies are not borne by passengers of rural and regional services, but by taxpayers who subsidise these services.

⁷¹ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, pp 15-18.

⁷² AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 15 .

⁷³ In its Draft Report, AECOM included some labour cost allowances in both its labour cost and route cost model. For more information see *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 18.

Finding

- 2 The efficient costs of providing rural and regional bus services in 2017 are on average 20% to 25% lower than contract costs of providing school only services and on average 28% to 32% lower than contract costs for school and regular services.

6.2 AECOM's assessment of efficient costs

AECOM assessed the efficient costs of providing rural and regional bus services using a bottom-up approach (summarised in Box 6.1) and the best available information. As part of this assessment, it:

- ▼ estimated the efficient unit costs (\$ per km) for each of the four bus categories in the contracts, and
- ▼ compared the efficient costs and the contract costs for each type of bus operator – those providing 'school only' services, and those providing 'school and regular passenger' services – to identify likely reasons for differences in efficiency.

Box 6.1 AECOM's approach to assessing efficient costs

1. Assembled fleet, route and contract data provided by TfNSW into a single set of files.
2. Identified the most common models of bus in the fleet in each of TfNSW's four bus categories, and established the range and trend of capital costs for buses in each category.
3. Estimated unit costs for running representative buses in each of these categories, by obtaining manufacturers' recommendations, checking these with selected operators, and estimating costs for all planned maintenance activities recommended by the manufacturers.
4. Estimated the length and duration of each trip undertaken under rural and regional bus contracts, including provision for deadruns and associated driver time required. (As the route data provided in the contracts was often not available, AECOM relied on spatial data obtained from TfNSW and text files from the TfNSW Open Data Hub for this estimation.)
5. Assessed the cost of drivers for each route, using estimated driving time (including deadruns or layovers) and current award rates and conditions.
6. Estimated seat capacity for each route. (As the records of buses assigned to contracts and routes were inadequate, AECOM used a variety of sources to identify the actual bus model working each school route and had to assume an 'average' bus from an operator's fleet is used on regular routes).
7. Estimated demand and utilisation of seat capacity for each route, using patronage data provided by TfNSW.
8. Estimated the overhead costs for each route by assessing overheads reported by all operators and available benchmark data, and establishing an appropriate correlation between reported overheads and seats used.
9. Derived the efficient cost of each route by applying the above unit costs to the specific parameters of each route:
 - a) assuming that buses are maintained efficiently, as per manufacturer's recommendations
 - b) estimating the return of and on capital based on the median of TfNSW current panel bus costs by category, TfNSW maximum bus service life requirements, and cost of capital assumptions provided by IPART
 - c) using derived route lengths, driving time and driver award rates as an indicator of the efficient (least) driving cost for the route
 - d) using manufacturer's recommendations for bus fuel usage and mean fuel costs in NSW over the past year
 - e) allocating overheads using the mean overhead per seat unit cost.
10. Summed the efficient costs by route over all routes provided under each contract to estimate the efficient costs of each contract
11. Compared this efficient cost by contract to contract costs as reported by TfNSW (where there was sufficient route data).

Source: AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 2.

6.2.1 Labour, capital and overhead costs are the largest costs

As the rural and regional bus fleet includes a wide range of bus makes and models, AECOM estimated the efficient unit costs per km based on:

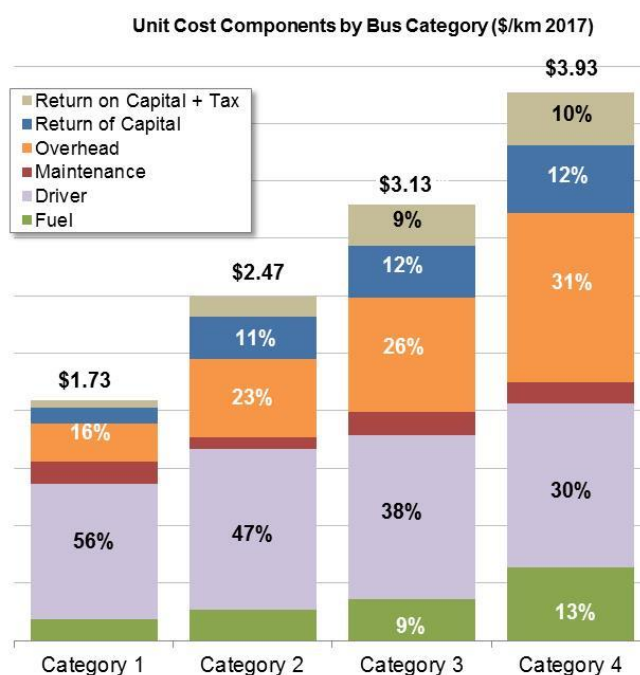
- ▼ a representative bus model in each of the four bus categories specified in the current contracts, and
- ▼ an average reported annual distance travelled by the buses in the category (generally around 30,000 km a year).

AECOM found that the efficient costs of buses include:

- ▼ bus driver labour
- ▼ maintenance
- ▼ fuel
- ▼ capital costs which include:
 - return on capital based on IPART’s standard weighted average cost of capital (WACC) and the purchase cost of the vehicle, and
 - return of capital (or depreciation) based on the purchase cost and useful life of the vehicle), and
- ▼ overheads which include annual fixed costs such as insurance and allocation of company overheads.

As Figure 6.1 shows, AECOM found that the largest unit cost component for a typical bus is the driver. But the (fixed) capital costs and overhead costs are larger for buses in the largest category. AECOM noted that it would expect those fixed costs to be a bigger component for rural and regional bus unit costs, because the use of rural and regional buses is relatively light compared with urban buses.⁷⁴

Figure 6.1 Efficient unit cost components by bus category



Data source: AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p i.

⁷⁴ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p i.

Bus driver labour

The largest unit cost component for a bus is the driver. AECOM found that bus driver labour costs makes up between 30% and 56% of the efficient unit costs per km depending on the bus category.⁷⁵

In response to our Draft Report, BusNSW argued that labour costs should be based on rates currently paid to bus drivers which are included in EAs registered by the Fair Work Commission, and are required to attract and retain drivers in rural and regional areas. The rates paid to casual drivers are approximately 25% higher than the Award Grade 3 rate. BusNSW also questioned the rates paid to casual drivers and how allocations for weekends, public holidays and driver conductor allowances were included in the hourly labour costs.⁷⁶

In its Final Report, AECOM recognised that in many cases bus drivers are paid rates above the minimums required by the Award through EAs.⁷⁷ It calculated an overall labour cost of \$38.36 per hour based on wage rates and allowances in typical NSW EAs. AECOM also noted that if the wage rates and allowances from the Award are used the overall labour cost would reduce to \$32.34 per hour.⁷⁸

We have benchmarked the labour rates for rural and regional bus drivers in NSW against the Award, EAs in other states and several comparable jobs. There are a range of employment arrangements (eg, permanent, part-time and casual) with different allowances for leave, overtime and special duties applying to each arrangement. To compare across jurisdictions and between jobs, we used the permanent hourly rate before allowances based on a 38-hour working week (See Figure 6.2).

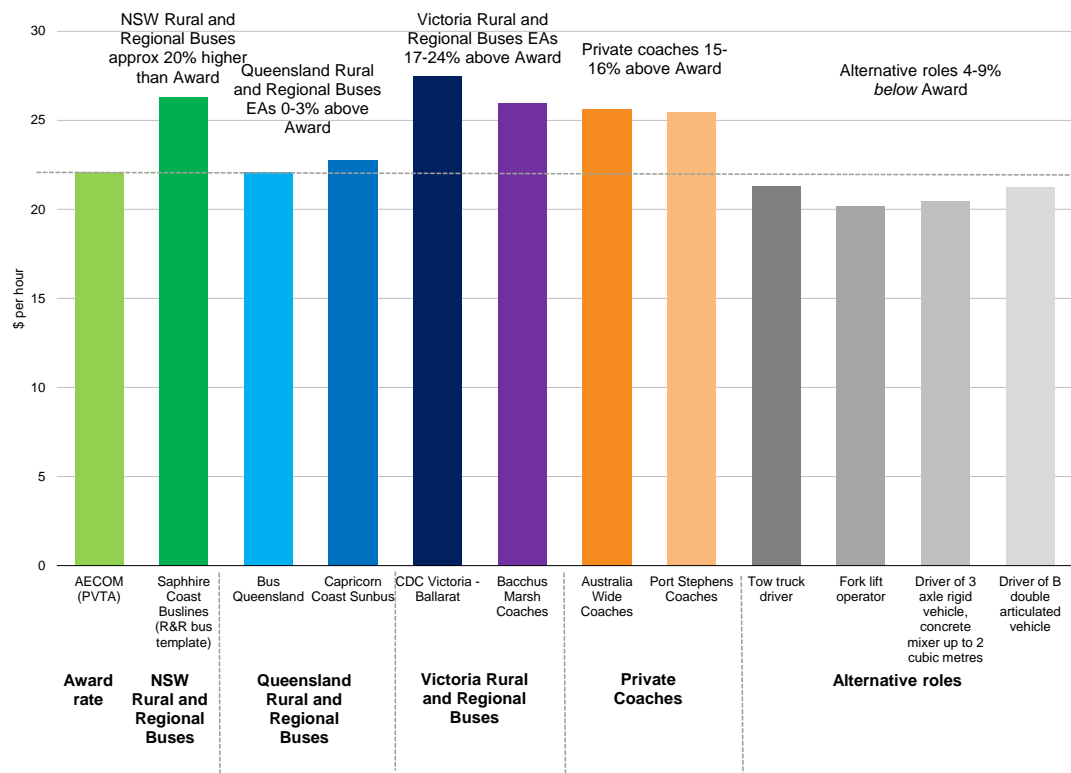
⁷⁵ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 21.

⁷⁶ BusNSW submission to Draft Report, October 2017, p 3.

⁷⁷ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 15.

⁷⁸ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 21.

Figure 6.2 Comparison of hourly rate across jurisdictions and comparable jobs (\$2017)



Data source: IPART analysis based on PVTA, Sapphire Coast Buslines Fair Work Agreement 2016, Bus Queensland, Transport Workers Union and Bus Queensland Employees' Enterprise Agreement 2017, Capricorn Coast SunBus Union Enterprise Agreement 2016, CDC Victoria Pty Ltd Ballarat Depot Enterprise Agreement 2014, Bacchus Marsh Coaches Enterprise Agreement 2016, Australia Wide Coach Drivers Enterprise Agreement 2015, Port Stephens (Nelson Bay) Coaches, Charter and Coach Drivers Enterprise Agreement 2015, Vehicle Manufacturing, Repair, Services and Retail Award 2010, Road Transport and Distribution Award 2010.

While rural and regional bus drivers in Queensland are paid at levels around the *Passenger Vehicle Transport Award 2010*, bus drivers in Victoria and NSW are paid 17-24% higher than Award levels. Similarly, drivers for private coach operators are paid 15-16% higher than the Award. Alternative roles for drivers pay around 4-9% less than the bus Award. However, we note that these roles would typically involve different customer service duties compared to rural and regional bus drivers.

We decided to use a range of labour rates when estimating efficient costs. We based our range on the Award (lower bound) and current NSW EAs (upper bound).

As noted above, we consider that efficient costs should be considered as a benchmark for TfNSW and operators to improve the value for money from bus services over time. Although higher labour rates are currently included in TfNSW payments to operators, we consider that TfNSW should make more use of competitive tendering to ensure that costs of providing rural and regional bus services reflect competitive markets.

Capital costs

Capital costs include an allowance for a return on assets, a return of assets (depreciation) and regulatory taxation. AECOM found that capital costs are a significant cost, in particular for Category 3 and Category 4 buses, making up around 21-22% of efficient costs.⁷⁹

The return on capital allowance represents the opportunity cost of assets that bus operators have invested to provide the contracted bus services (ie, largely bus vehicles). AECOM estimated this allowance by applying IPART's WACC to the purchase price of buses under the contracts, including an allowance for seatbelts.⁸⁰ Further information on the NSW Government's seat belt program is set out in Box 6.2.

Box 6.2 NSW Government seat belt program

In June 2017, the Minister for Transport announced the installation of seatbelts on the rural and regional bus fleet would be fast tracked. All 2,800 rural and regional buses will have seatbelts by December 2021 with the replacement of 415 buses and retrofitting 1,937 existing buses. This is on top of the 515 buses that have already been replaced as part of the program.

TfNSW advised that the program will bring forward the replacement for some buses under the contracts. The table below summarises how former contract A (school only services) and contract B (school and regular services) are affected by the program.

Seat belt program timing for replacement and retrofitting of buses

Former contract A (school only services)	Former contract B (school and regular services)
<ul style="list-style-type: none">▼ All school route buses will have seatbelts by December 2019.▼ Any of these buses to be replaced by the end of 2019 will still be replaced within that time period.▼ Buses that would normally be replaced in 2020 will be replaced one year early (in 2019).▼ All remaining buses will be retrofitted with seatbelts by December 2019.	<ul style="list-style-type: none">▼ All buses excluded from the previous Seatbelt Rollout Program will have seatbelts by December 2021.▼ Any bus that was scheduled to be replaced by the end of 2021 will still be replaced within that time period.▼ Buses that would normally be replaced in 2022 will be replaced one year early (in 2021).▼ All remaining buses will be retrofitted with seatbelts by December 2021.

Source: TfNSW, Information provided to IPART, 14 November 2017.

TfNSW advised that while there may be instances where seatbelts reduce capacity, to date, these instances have been isolated and the impact is minimal. TfNSW is continuing to work with the bus industry to develop solutions to minimise the impact of seatbelts on capacity, particularly in relation to ultra-low floor buses. It also noted that where seats with seatbelts are available on a service, these seats should be fully occupied before any standees are considered.

Source: TfNSW, Media release - Strap in for seatbelt bonanza, June 2017 available from <https://www.transport.nsw.gov.au/newsroom-and-events/media-releases/strap-for-seatbelt-bonanza>, TfNSW Information provided to IPART, November 2017.

⁷⁹ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p i.

⁸⁰ See Appendix F for details on our WACC calculation and parameters.

The return of capital (depreciation) allowance is used to recover the cost of the buses used in providing buses services over their economic lives. To calculate this allowance, AECOM used a life of 15 years for Category 1 and 2 buses and 25 years for Category 3 and 4 buses based on the maximum service lives in the contracts. As noted below, we consider that there is potential to extend (or shorten) the life of buses depending on the condition of the bus, the distance it has travelled, comfort, and safety requirements.

BusNSW argued that the return on capital should be based on return amounts under the contracts. It also pointed out that in some cases the TfNSW contract payments are based on different terms. For example buses procured as part of the seatbelt program are based on a return of capital over ten years.⁸¹

As noted above, we consider that our efficient cost estimates are a benchmark for TfNSW and operators to improve the value for money from bus services over time. Our standard approach to calculating a return on capital, return of capital and tax allowance rather than the return amounts in the contracts, provides the best measure for such a benchmark.

Overheads

Overhead costs are fixed costs that do not relate to the distance travelled by each bus. They include costs such as administration and management salaries, advertising, IT, communications and utilities.

There are several allocators for these costs, including the number of buses operated (which is also a proxy for the number of staff employed), passenger numbers, total seat capacity, total distance travelled, total direct cost incurred, and various combinations of these.

AECOM found that overhead or other costs average of \$700 per seat.⁸² BusNSW noted that AECOM has not been able to disaggregate overhead costs and questioned if they represent real costs for a rural and regional bus operator.⁸³

Although AECOM was not able to breakdown its estimate of overhead costs into further categories, it considered that its overhead costs per seat are consistent with per-seat overheads of benchmarked operators.⁸⁴ We consider that better financial reporting (as described in Section 6.3 below) would allow for better benchmarking of overhead costs in the future.

Fuel

Fuel costs depend on the prevailing price of diesel in regional NSW and the expected fuel consumption of buses. AECOM used the average cost of diesel in NSW for the immediate past year (ex-GST) and fuel consumption from manufacturer's recommendations. It also included an additional 10% to account for fuel usage that may be above manufacturer recommendations due to regional road conditions.⁸⁵

⁸¹ BusNSW submission to Draft Report, October 2017, p 4.

⁸² AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, November 2017, p 20.

⁸³ BusNSW submission to Draft Report, October 2017, p 21.

⁸⁴ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, November 2017, p 21.

⁸⁵ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, November 2017, p 14.

Maintenance

Maintenance costs are the smallest component of the efficient unit costs. AECOM found that maintenance costs make up between 4% and 9% the efficient unit costs per km depending on the bus category.⁸⁶ These cost allowances are slightly higher than those in AECOM's draft report.

BusNSW argued that AECOM's maintenance costs were "best case" and do not represent the real costs of maintaining vehicles in rural and regional areas.⁸⁷

AECOM included vehicle manufacturers' planned maintenance for all vehicles in its final report and has further included an additional allowance of 10% for unplanned maintenance. It considered that these allowances sufficiently account for the distance travelled and time driven in rural and regional areas of NSW.⁸⁸

6.2.2 Contract costs of 'school only' services are around 14-20% higher than estimated efficient costs

AECOM found that based on labour costs in typical NSW EAs, the reported contract costs for school only services were approximately 14-20% higher than its estimate of the efficient costs of providing these services.⁸⁹ These are marginally higher than AECOM's draft findings that reported contract costs were 13-19% higher than efficient costs.⁹⁰

As Figure 6.2 shows, AECOM found that the difference between the contract and efficient costs varied across operators. For most operators, the contract costs are within 10-25% of the efficient costs, but for 43% of these operators, the contract costs are more than 25% higher than the efficient costs.⁹¹

AECOM also found that the drivers of this difference were that:

- ▼ the reported route distances were generally higher than its estimate of the efficient route distance
- ▼ the wide choice of bus makes and models available to operators under the contracts, and
- ▼ potentially the maximum vehicle age rule under the contracts.⁹²

As noted above, if labour costs were lower than EA rates, there would be scope for further cost savings. If labour costs were closer to the Award rates and Queensland EA rates there would be scope for significant further cost savings.

⁸⁶ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, November 2017, p 27.

⁸⁷ BusNSW submission to Draft Report, October 2017, p 3.

⁸⁸ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p 13.

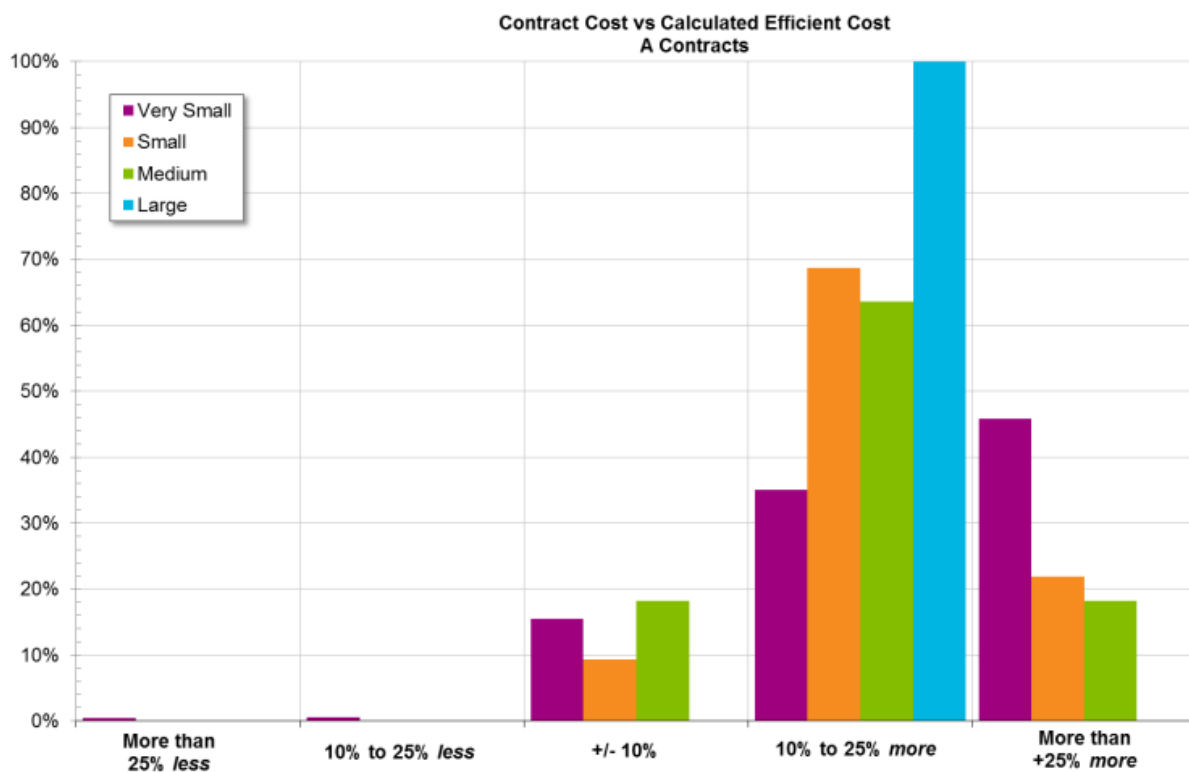
⁸⁹ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 30.

⁹⁰ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Draft Report*, October 2017, p 27.

⁹¹ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 31

⁹² AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 31 and p 55

Figure 6.3 Reported contract costs relative to estimated efficient cost for school only services



Data source: AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 31.

Reported route distance generally higher than efficient route distance

AECOM based its estimate of the efficient costs of providing school only services on its assessment of the efficient route distance for each service. In making this assessment, it took account of the route layout, the depot location, and the impact of dead-running.⁹³ It also included an additional 10% in the efficient route distance to allow for off-route movements that may be required.⁹⁴

It found that that on average, the reported route distance was approximately 11% longer than the efficient route distance.⁹⁵ AECOM also noted that establishing accurate route characteristics required considerable effort as bus operators do not report this information under the current contracts.⁹⁶

⁹³ Most routes have a start and finish point that is separate from the depot or other place where the bus is stabled when not in use. Dead-running relates to the trips from the depot to the start of the run and from the end of the run back to the depot, while not part of the route itself, are included in AECOM's calculations of route length and route driving time. The length of dead-running can vary considerably, and in some cases is able to be minimised or avoided by leaving the bus at the start or finish and either providing the driver with a 'layover' or ending that particular shift.

⁹⁴ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p 26.

⁹⁵ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 31.

⁹⁶ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, November 2017, p 55.

Wide choice of bus makes and models available under contracts

AECOM based its estimate of the efficient costs of providing school only services on a commonly used make and model of bus in use in each of the four categories. However, both the previous and current contracts provide operators with a choice of makes and models.⁹⁷

AECOM found that the choice of bus models in the smaller categories (Category 1 and 2) is more limited, and the available models have similar purchase costs. However, in the larger categories the choice of models and the range of purchase costs are much wider. In Category 4 (buses with 44 or more seats), operators were able to purchase 124 models under the old contracts, and have a choice of 38 models under the current contracts. In Category 3 and Category 4, the purchase price of the most expensive model is between 20% and 50% higher than that of the least expensive models.

Maximum vehicle age rule under the contracts

AECOM also found that the maximum vehicle age rule under the new contracts may impose unnecessary costs on providing rural and regional bus services.⁹⁸ TfNSW specifies the maximum age of buses operated under its contracts as:

- ▼ 15 years for Category 1 and Category 2, and
- ▼ 25 for Category 3 and Category 4.

TfNSW also limits the maximum average age of the fleets operated under each contract to:

- ▼ 8 years for Category 1 and Category 2, and
- ▼ 12 years for Category 3 and Category 4.⁹⁹

AECOM found that these maximum age limits would have the effect of increasing capital costs where the actual service life of a bus is longer than these limits.¹⁰⁰ It considered that the maximum age limit likely reflects an assumed lowest acceptable vehicle condition, and noted this is strongly influenced by the total distance travelled by the bus.¹⁰¹ In rural and regional areas, buses may not be as intensively used as in metropolitan areas, so a longer service life may be appropriate.

6.2.3 Reported contract costs of school and regular passenger services are around 20-32% higher than estimated efficient costs

AECOM found that the available data on school and regular passenger services (ie, for operators previously on Contract B) was less complete than for school only services. Therefore, its cost analysis for these services was limited to operators for which a full set of data on regular passenger routes is available.

⁹⁷ Under the new contracts, operators must obtain TfNSW's approval prior to acquiring a new bus. They must acquire buses from a procurement panel maintained by TfNSW. At the end of the contract term, if an operator's contract is not renewed, the contract generally allows for all buses to be transferred to the new operator or to TfNSW. See Rural and Regional Bus Service Contract clause 14.1 (b) and clause 14.2.

⁹⁸ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p iv.

⁹⁹ For example, see TfNSW, *Rural & Regional Bus Service Contract (Large)*, p 165.

¹⁰⁰ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 53.

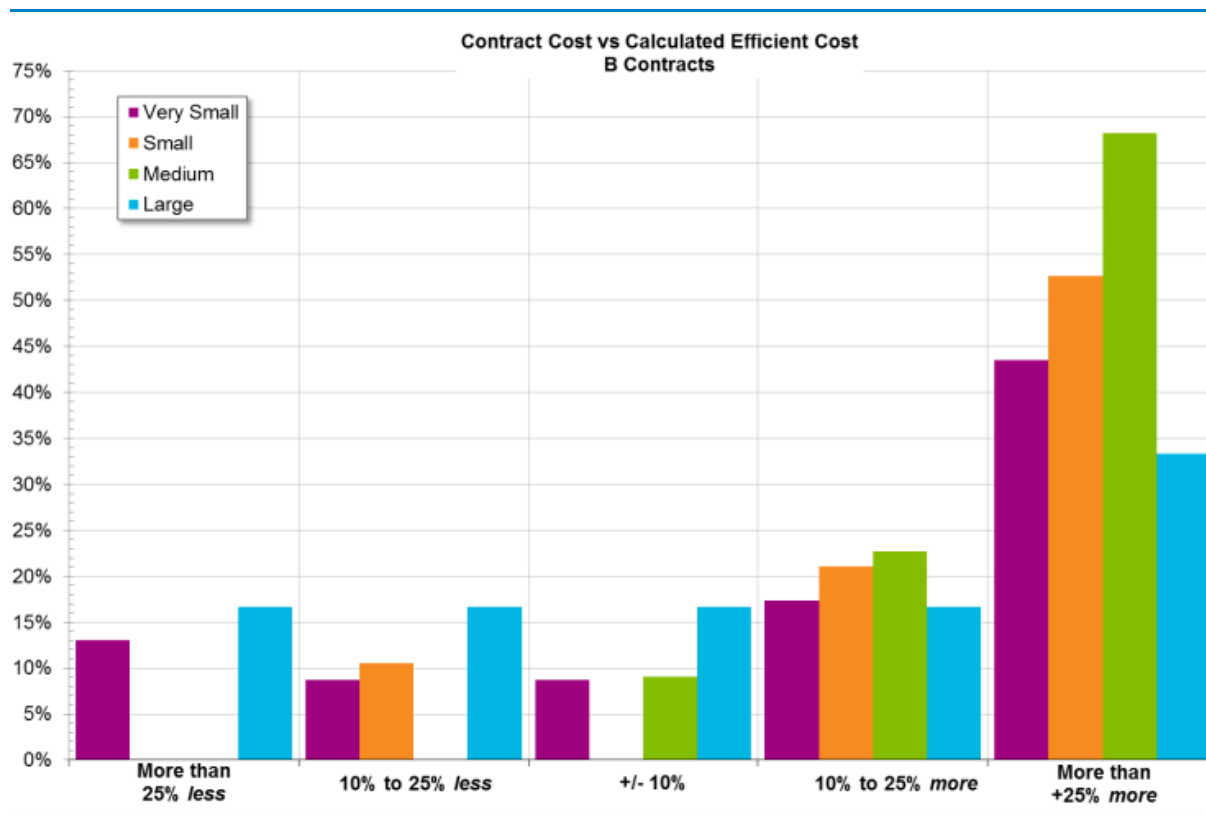
¹⁰¹ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 53.

Based on the labour costs in typical NSW EAs, AECOM found that the reported contract costs for regular passenger services are approximately 20-32% higher than its estimate of the efficient costs of providing these services.¹⁰² These are marginally higher than AECOM's draft findings that reported contract costs were 19-31% higher than efficient costs.¹⁰³

As was the case for school only services, the difference between contract and efficient costs varied across operators (see Figure 6.3). For example, for 53% of school and regular service contracts, the contract cost is more than 25% above AECOM's efficient cost.¹⁰⁴

AECOM considered that the main driver of this difference was the size of the bus used for regular passenger routes. Other contributors were the route distances, and the wide choice of bus makes and models and the maximum vehicle age rule under the contracts.¹⁰⁵ As noted above, if labour costs were lower than EA rates, there would be scope for further cost savings. If labour costs were closer to the Award rates and Queensland EA rates there would be scope for significant further cost savings.

Figure 6.4 Difference between contract cost and AECOM efficient cost for regular passenger services (where data available)



Data source: AECOM, *Efficient Costs of Rural and Regional Bus Operators- Final Report*, December 2017, p 33.

¹⁰² AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, November 2017, p 32.

¹⁰³ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, November 2017, p 29.

¹⁰⁴ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p 33.

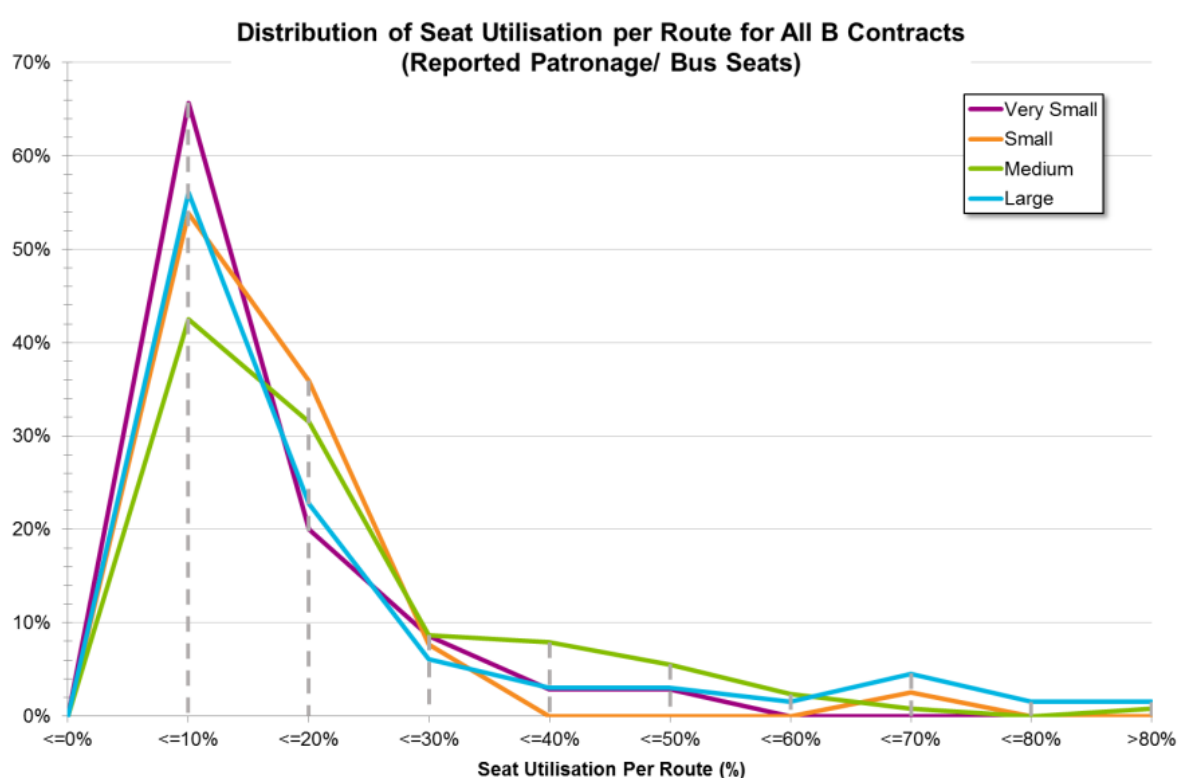
¹⁰⁵ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 33 and p 55.

Bus size is major driver of additional efficiency on regular passenger routes

AECOM found that on average, the reported average bus seat utilisation (patronage per seat trip) for regular passenger services is only 12% (Figure 6.5).¹⁰⁶ This means that for many regular passenger routes, a stepdown to a lower category bus (for example, from Category 3 (ie, 29-43 seats) to Category 2 (ie, 15-28 seats) would provide a more cost-effective service.¹⁰⁷ We note that this excludes school students travelling on regular passenger services.¹⁰⁸

AECOM estimated that if all opportunities to downsize the bus used to provide regular services were taken (allowing for peak loading and school students), the total cost of these services could be further reduced by up to 21%. However, it noted that if regular passenger routes are also used for more highly patronised school services, there may not be an opportunity to downsize.¹⁰⁹

Figure 6.5 Reported bus utilisation for regular passenger services (where data available)



Data source: AECOM, *Efficient Costs Rural and Regional Bus Operators- Final Report*, December 2017, p iii.

Route km, choice of bus makes and models and maximum age requirements also contribute to efficiency

As for school only services, AECOM considered that the higher than efficient reported route distances, and the wide choice of bus makes and models and maximum age limits in the

¹⁰⁶ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p ii.

¹⁰⁷ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, pp 26-27.

¹⁰⁸ Based on a sample of regular passenger routes provide by Large and Medium operators. AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, October 2017, p 9.

¹⁰⁹ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December, 2017, p iii.

contracts also contribute to the difference between the contract and efficient costs for regular passenger services (see section 6.2.2).

6.3 Our recommendations on improving efficiency of contract costs over time

In light of AECOM's findings, we consider that there are several steps TfNSW can take to help improve the cost efficiency of rural and regional bus services. Not all of these improvements can be achieved immediately. In some cases, they may not be possible until buses are retired or the current contracts expire in 2024. We consider that our efficient cost estimates should be used as a benchmark for TfNSW and operators to improve the value for money from bus services over time.

However, over the three-year determination period, we consider the Government should focus on improving the cost-effectiveness of those operators whose cost structures are significantly different to their peers. Key steps include:

- ▼ collecting better information on route distances and operator costs to identify high-cost services
- ▼ reviewing the bus size, the choice of makes and models and the maximum vehicle age limits, and
- ▼ making more use of market testing for any new services.

6.3.1 Collecting better information on route distance and operators' costs

AECOM noted that poor quality of data reported under the contracts meant considerable effort was required to establish route characteristics and identify which buses are used on different routes.¹¹⁰ This information is needed to estimate the distance travelled by each bus category and the efficient costs that should be incurred in providing the services.

AECOM also noted an apparent variation in the types of costs that have been captured in the contract payment categories across operators (in particular labour, fuel, and other).¹¹¹ It recommended more consistent reporting of operators' costs.¹¹² Under the metropolitan and outer metropolitan bus contract, TfNSW requires operators to report costs in more detailed cost categories than under the current rural and regional bus contracts (for example, driver labour, administration labour, fuel, maintenance, depot rent, other depot overheads).

We consider that better information on route distance and operator costs would allow TfNSW to identify where and why some operators' costs are significantly different to their peers, and improve the cost effectiveness of the services over time, in particular during the current contract period.

BusNSW was concerned about the impact of our recommendation for additional reporting on small and very small bus operators.¹¹³

¹¹⁰ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p iv.

¹¹¹ AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p 29.

¹¹² AECOM, *Efficient Costs of Rural and Regional Bus Operators – Final Report*, December 2017, p iv.

¹¹³ BusNSW submission to IPART Draft Report, November 2017, p 5.

We decided to maintain this recommendation for Large and Medium operators. Large and Medium bus operators currently report on a more comprehensive set of obligations either on a quarterly (Large) or six-monthly (Medium) basis. Most operators have relatively sophisticated ticketing systems that have the capacity to generate reports to meet their reporting obligations.

However, for Small and Very Small operators our final recommendation is to require annual reporting on total service kilometres, total dead running kilometres and a smaller subset of costs. The amended recommendations will provide TfNSW with information on the total distance covered by Small and Very Small operators and their key cost items (labour, fuel and maintenance) to assist in obtaining better value for money.

We also note that these recommendations should only apply until contracts are competitively tendered. After tendering, TfNSW should design reporting requirements to ensure that services are delivered to the standards required under new agreements.

Recommendation

- 2 Until contracts are competitively tendered, TfNSW require:
 - Large and Medium bus operators to report annually on a consistent basis on:
 - a. patronage by route using IPART’s new fare bands,
 - b. service kilometres and dead running kilometres by **route**,
 - c. costs incurred in providing the services using cost categories similar to the reporting requirements for metro and outer metro bus operators
 - Small and Very Small bus operators to report annually on:
 - a. patronage by route using IPART’s new fare bands,
 - b. total service kilometres and total dead running kilometres, and
 - c. key cost items (labour, fuel, repairs and maintenance).

6.3.2 Reviewing the bus size, range of makes and models and age limits

AECOM found that the low bus utilisation of regular passenger services means that there is scope to use smaller, more cost-effective buses on many routes.¹¹⁴ To decide on the optimal size and allocation of buses, TfNSW needs to consider the geography of the routes, the timetables, and the expected levels of patronage across all services provided by an operator. There is also scope to consider services across whole regions that are currently serviced by more than one operator.

BusNSW argued that the maximum age limits in the contracts are considered very high by international standards where contracted buses are normally replaced at a much younger age. They also noted that operators are procuring what are considered to be the more expensive (heavy duty) buses in order to meet the current maximum age requirements of the contract.¹¹⁵ One anonymous individual supported our draft recommendations in principle but considered that TfNSW should exercise caution. They noted that the

¹¹⁴ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, October 2017, p 37.

¹¹⁵ BusNSW submission to IPART Draft Report, November 2017, p 7.

maximum service life of buses and average fleet age combine to act as a proxy for safety and comfort, with the general rule of thumb being newer vehicles are more comfortable and safer than equivalent older vehicles.¹¹⁶

As Chapter 2 discussed, operators may use a dedicated bus for each route, several buses on the same route across the day, or the same bus to service multiple routes across the day (including school only routes). Therefore, it is not possible to make one blanket rule about what bus size operators should use for each bus route.

However, we consider TfNSW should review the bus size used by an operator at appropriate times:

- ▼ First, as buses reach the maximum age limit specified in the contracts, TfNSW should not simply approve operators replacing them on a like-for-like basis, but should consider whether a smaller bus or buses could deliver the same services at lower cost, taking into account both the operating and capital costs of the bus or buses.
- ▼ Second, where patronage for a regular passenger services is very low and bus utilisation is below 10% over a six-month period, TfNSW should require operators to demonstrate why the current bus size should be maintained.¹¹⁷

AECOM also found that there is a wide variation in purchase cost on the procurement panel for buses in the same category for Category 3 and Category 4.¹¹⁸ This means that operators may be purchasing more expensive buses than are needed to deliver the minimum required levels of safety and service. In some instances, savings in warranty and maintenance costs may justify a higher purchase cost over the life of the bus.

It is our view that the decision to replace a bus should consider the costs and benefits of replacement compared to extending its life. This should have regard to the condition of the bus, the distance it has travelled, comfort and safety as well as the price of replacement. Where buses have travelled fewer km and are still in good condition, there may be an opportunity to extend their useful life. However, in other cases it may be efficient to replace buses before the maximum age limits in the contracts. We consider that the contracts should allow for both scenarios.

Recommendation

- 3 TfNSW review the reported patronage of bus services to determine whether the size of the bus allocated to routes is appropriate. This review should occur when:
 - A bus operator seeks to replace a bus under its existing contract.
 - For Large and Medium operators, bus utilisation over a six-month period is less than 10% and TfNSW should require operators to demonstrate why they need to maintain the current bus size.
 - For Small and Very Small operators, bus utilisation over a 12-month period is less than 10% and TfNSW should require operators to demonstrate why they need to maintain the current bus size.

¹¹⁶ Anonymous submission to Draft Report, November 2017, p 6.

¹¹⁷ We note that while we consider there are likely to be on-going savings, the assessment would also need to take into account any transaction costs of disposing of the larger bus and buying a smaller bus.

¹¹⁸ AECOM, *Efficient Costs of Rural and Regional Bus Operators - Final Report*, December 2017, p 4.

- 4 That TfNSW require operators to demonstrate that the benefits exceed the costs of replacing buses by considering the condition of the bus, the distance it has travelled, comfort, safety requirements and the cost of replacement. This would allow operators to shorten or extend the life of buses where the benefits exceed the costs.

6.3.3 Making more use of market testing for new services

We consider there is also scope to improve the cost-effectiveness of services by lowering the contract costs to be more in line with our estimates of efficient costs. During 2017, TfNSW began making use of competitive tendering for new services in rural and regional areas. It sought responses from the market for around 13 school routes.¹¹⁹

We consider that TfNSW should continue to seek responses from the market to ensure that contract costs reflect the efficient costs. As noted above, we consider that the lower ends of our efficient cost ranges reflect the efficiency savings that can be made without any changes to existing labour arrangements. That is, through TfNSW collecting better information on route distances so that only efficient route kilometres are funded, and reviewing the choice of bus makes and models.

The upper ends of these ranges reflect the efficiency that can be made with changes to existing labour arrangements. We consider that TfNSW should make more use of competitive tendering to ensure the costs of rural and regional bus services reflect efficient costs.

See Chapter 8 for further information on our recommended frameworks for procuring transport services including on demand services.

6.4 Impact of fares on cost recovery, operators and Government funding

To assess the impact of our fare decisions on the level of cost recovery, we used AECOM's findings on the efficient costs of providing rural and regional bus services and our standard building block method to estimate the total efficient costs of these services over the determination period.

In doing this, we assumed 'business as usual' in terms of the bus fleet and the number of service km travelled in a year. We used AECOM's recommended bus vehicle makes and models in each bus category and applied these to the number of vehicles and average age of buses in the current fleet. We did not include the impact of AECOM's recommended downsizing of the buses used on regular passenger services to better match patronage.¹²⁰ We consider that TfNSW and operators should consider the potential for downsizing buses as well as the nature of the services provided before the current contracts expire in 2024. See Chapter 8 for further information on our recommended frameworks for procuring transport services including on demand services.

We note that the contract costs reported by TfNSW do not include an allowance for replacing buses as they reach the maximum age limits in the contracts. We have included an

¹¹⁹ Information to IPART, TfNSW, 5 July 2017.

¹²⁰ See Appendix E for further information.

allowance for replacing such buses in our efficient cost estimates.¹²¹ We also note that in some cases the contract costs included a transition from higher costs in Year 1 to lower costs later in the later years of the contract.

Our findings on the total efficient costs in Year 1 of the contract period and the average efficient costs from 2018 to 2020 are summarised in Table 6.1.

Table 6.1 IPART estimate of total efficient costs over determination period (\$2017 million)^a

		'School only'	'School and regular' ^b	Total
Year 1 of contract period				
Contract costs	\$ million pa	210.5	203.3	413.8
Efficient costs	\$ million pa	158.2 to 167.7	139.2 to 146.5	297.4 to 314.2
Dollar Difference	\$ million pa	-52.3 to -42.7	-64.1 to -56.9	-116.4 to -99.6
% Difference	%	-25% to -20%	-32% to -28%	-28% to -24%
Average over determination period (2018 to 2020)				
Contract costs	\$ million pa	208.0	195.9	403.9
Efficient costs ^b	\$ million pa	158.3 to 167.9	140.3 to 147.6	298.6 to 315.5
Difference	\$ million pa	-49.7 to -40.1	-55.6 to -48.3	-105.3 to -88.4
Difference	%	-24% to -19%	-28% to -25%	-26% to -22%
Difference in \$/km reported by AECOM ^c		-20% to -14%	-32% to -20%	-32% to -14%

^a The efficient costs ranges reflect driver labour costs - Award rates and EA rates respectively.

^b We estimated total efficient costs by scaling up to include Small and Very small B contracts, in proportion to their share of total contract costs.

^c AECOM reported contract and efficient costs per km for six contract categories, namely Large, Medium, Small and Very Small A contracts and Large and Medium B contracts. Contract costs are average costs over the five year contract period.

Note: Totals may not add due to rounding

Sources: AECOM, *Efficient Cost of Rural and Regional Bus Operators, Final Report*, December 2017, pp 30 – 32, IPART calculations.

We found that regular passenger services account for almost 50% of the efficient costs of school and regular passenger contracts in 2017 (See Table 6.2). Consequently, we estimate that, while revenue from fares will recover around 5-6% of the total efficient costs in 2017,¹²² it will recover around 10-12% of regular passenger services' share of these costs. Cost recovery from fares will be slightly lower in 2020 due to lower fares.¹²³

¹²¹ See Appendix E for further information.

¹²² Revenue from fares in 2017 uses actual fares (not maximum fares).

¹²³ Revenue from fares in 2020 assumes that demand responds to lower fares, and that underlying patronage grows at 0.7% per year (due to population growth).

Table 6.2 Fare revenue as proportion of efficient costs for ‘School and regular’ contracts (sample), 2017 and 2020

Year	Total costs \$2017 million			Revenue from fares \$ 2017 million ^a				Revenue from fares as proportion of	
	Dedicated school services	Regular passenger services	Total	Adult	Concession	RED	Total	Regular passenger service costs	Total costs
2017									
Award ^b	59.4	55.6	115.1	2.6	2.0	2.1	6.7	12.0%	5.8%
EAb	62.5	58.5	121.1	2.6	2.0	2.1	6.7	11.4%	5.5%
2020									
Award ^b	59.5	55.7	115.2	2.0	1.6	2.1	5.7	10.3%	5.0%
EAb	62.6	58.6	121.2	2.0	1.6	2.1	5.7	9.7%	4.7%

^a We used average actual fares (not maximum fares) to calculate revenue from fares in 2017. To calculate revenue from fares in 2020, we assumed that demand responds to lower fares, and that underlying patronage grows at 0.7% per year (due to population growth).

^b The efficient costs ranges reflect driver labour rates, ie, Award rates and EA rates respectively.

Note: Totals may not add due to rounding ex-GST.

Source: IPART calculations.


Our decisions set maximum fares for rural and regional bus operators to charge their customers. The impact of these decisions on bus operators would depend on the fares they currently charge passengers compared to our maximum fares. We note that a number of bus operators currently charge fares below the maximum.

Our decisions should not have a significant effect on the level of Government funding for rural and regional buses in the current contract period. We expect more passengers to travel on the buses as a result of substantially lower fares. But, the additional fare revenue from this increase in patronage may not fully offset the revenue impact of reducing fares.

The impact on each operator depends on how responsive patronage is to lower fares and in some cases operators may receive less revenue from fares. However, we expect the impact on bus operators would be small compared to contract costs. For all operators across all rural and regional areas, we expect the total impact to be around \$1.2 to \$1.7 million a year or less than 1% of the total contract costs. This is slightly higher than we estimated under the Draft Report – the increase is due to fares being based on sections rather than kilometres travelled – the first fare band is 1 to 2 sections (ie, up to 3.2 km) travelled as compared to 0-2 km in the Draft Report.

In its submission to our Issues Paper, BusNSW noted there is provision under the rural and regional bus contracts for TfNSW to adjust contract payments to reflect the impact of changes in fare revenue. BusNSW said if TfNSW changes a fare (or fares) in the contract fares and ticketing schedule as a result of a change in government fare policy, and the change results in a material change in the fare revenue received by the operator, the parties need to agree an adjustment to the Annual Contract Price to reflect the impact of the change in the annual fare revenue.¹²⁴

¹²⁴ BusNSW Submission to IPART Issues Paper, June 2017, p 2.



In our view, any change to contract prices should only take place following monitoring and reporting of any impact of changes in annual fare revenue and would need to be considered on a case by case basis. The annual impact may not become reasonably clear until after the end of each year (eg, the impact for 2018 would not be likely to be known until around April 2019 depending on when operators report to TfNSW). We also note that we have identified several areas where operators can improve the cost-effectiveness and efficiency of the services they provide. The expected fare revenue impacts are a small proportion of the potential savings from these efficiency improvements. We consider that any changes to contract prices as a result of fare revenue impacts should be considered in this context.

7 Delivering a better service for the same cost

Another way to more cost-effectively provide rural and regional people with reasonable access to their local communities is to deliver a better transport service without significantly increasing the total cost to the Government. If a better service is provided, additional people may use the service, and they may be willing to pay more for this service than for a traditional fixed route bus service, generating more fare revenue. The additional usage and fare revenue can lower the cost per passenger journey, improving the value both customers and NSW taxpayers receive from current government funding for rural and regional bus services.

As Chapter 2 noted, the NSW Government is currently consulting on a new 40-year transport strategy for NSW. In developing this strategy the Government has recognised that transport services are undergoing significant change. Technology is central to transport services being delivered by a broader range of service providers, giving customers more choice, service quality and convenience. The government's role is changing from a default transport provider, to ensuring the right policy and regulatory frameworks are in place to support new service providers. More innovative procurement practices are being investigated to better respond to customer needs and deliver better value for money.

The NSW Government is also consulting on its services and infrastructure plan for regional NSW.¹²⁵ This plan envisions more flexible and personalised service delivery options and greater use of on demand services as part of the package of transport services it provides in rural and regional areas. On demand services are a more flexible and customer-focused method of meeting people's transport needs. They differ from traditional public transport services in that some aspects of the service vary according to customer needs and demand – for example, the route, the pick-up and drop-off points, and the type of vehicle used.

To assist the Government in better understanding the potential for on demand services to deliver a better transport service for the same or similar cost, we investigated three issues:

1. What conditions need to be met for on demand services to be cost-effective in rural and regional NSW?
2. What types of on demand services are best suited to rural and regional NSW?
3. What fares are appropriate for on demand services in rural and regional NSW?

The sections below provide an overview of our findings and recommendations on these three issues, and then discuss them in more detail. In Chapter 8 we use these findings to develop frameworks to guide Government procurement of transport services (including on demand services) in the short term and then in the longer term when the current bus contracts end. In Chapter 9 we have developed some case studies to test whether our findings on these issues are reasonable.

¹²⁵ NSW Government, *Draft Regional NSW Services and Infrastructure Plan*, October 2017.

7.1 Overview of findings and recommendations

We found that on demand services have potential to deliver a better transport service for the same or similar cost. However, they need to be well-targeted to address an identified community need and be well-marketed to ensure customers are aware of the services. Customers need to understand how the services work so bus operators can attract sufficient additional usage and fare revenue to offset the additional costs of providing on demand services.

We consider that the development of on demand services should be prioritised in those areas where the bus contract costs are more than 25% higher than the efficient costs. As a rule of thumb, on demand services should only be developed where they can be delivered for a lower cost per passenger journey than the equivalent traditional fixed route bus service. NRMA supported this position in response to our Draft Report.¹²⁶

In the short term, during the life of the current bus contracts, the types of on demand service most likely to be cost-effective in rural and regional NSW are those that add on demand components to existing fixed bus routes. For example, this type of service could involve deviations from the existing fixed route to pick up and drop off customers from pre-arranged stops, or their homes, when they have booked. Alternatively, it could pick up booked customers from within a defined roam zone at one end of the route, and drop them off at just one (or a few) popular destinations at the other end (such as the local airport, hospital or shopping centre).

Our findings for on demand services are consistent with the flexible transport models in the Government's recently released future transport strategy for regional NSW. In the short term, the NSW Government envisions that flexible transport could be introduced to complement existing services, replace existing time or coverage limited services, and provide a new service.¹²⁷

In the longer term, when the current contract terms end in 2024, a wider variety of on demand services may be feasible. However, we consider the Government should allow the market to identify and propose the most cost-effective options by competitive tendering for the provision of transport services in each region. This approach is also consistent with the NSW Government's assessment that in the long term, all local public transport services in regional NSW could be flexible.¹²⁸

We also found fares for on demand services should take account of their better service level and additional delivery cost, and need to be simple and low enough to encourage additional patronage. We consider a surcharge of between \$0 and \$5 (including GST) on the adult fixed route fare would be appropriate, depending on the degree of flexibility provided. We are recommending that in the short term, bus operators have the option of charging passengers a surcharge of up to \$5 for on demand bus services, and that reduced surcharges be available to concession passengers. Stakeholders generally supported this approach to charging for on demand services.¹²⁹

¹²⁶ NRMA submission to IPART Draft Report, November 2017, p 2.

¹²⁷ NSW Government, *Draft Regional NSW Services and Infrastructure Plan*, October 2017, p 105.

¹²⁸ NSW Government, *Draft Regional NSW Services and Infrastructure Plan*, October 2017, p 105.

¹²⁹ See for example Individual (Anonymous) submission to IPART Draft Report, p 5 and CPSA submission to IPART Draft Report, p 7.

7.2 What conditions would need to be met for on demand services to be cost-effective?

On demand bus services have been operating in different forms either as trials or as ongoing services in Australia and overseas for over 20 years. Failed or withdrawn schemes greatly outnumber successful ones. Our review of past and existing services¹³⁰ suggests that for on demand services in rural and regional NSW to be cost-effective, three key conditions would need to be met:

- ▼ the services must attract sufficient additional usage and fare revenue to offset the additional costs of providing them
- ▼ the services must be well-targeted to address an identified community need
- ▼ the services must be well-marketed to ensure the community is aware of them and understand how they work.

7.2.1 Services must attract sufficient additional usage and fare revenue to offset additional costs

On demand services cost more to deliver than fixed route services, so for provision of these services to be cost-effective, they need to attract additional patronage and generate additional fare revenue to offset these additional costs.

Our analysis suggests there are two main sources of additional cost, and the quantum of this cost depends largely on the degree of flexibility in the on demand service. The first source is the extra cost of running the vehicle, such as labour, fuel and maintenance costs (known as vehicle km costs). The more an on demand service deviates from a fixed route (for example, to pick up and/or drop off passengers), and the longer distance and time it needs to travel, the greater the vehicle km costs.

The second source is the additional cost of managing bookings and having the resources available to respond to them (eg, vehicles and drivers). These costs will depend on the scale and sophistication of the service. For example:

- ▼ On demand services offered on a few routes, with a small number of vehicles, and limited times of operation, could be managed via a phone booking system with a person answering the phone and organizing the bookings. In this case, the additional cost would be the salary of the phone operator for the time involved.
- ▼ On demand services offered on multiple routes, with a fleet of vehicles of different sizes and real-time booking capability would probably need an app-based booking and vehicle dispatch system. In this case, the additional cost would include upfront IT costs as well as any on-going maintenance and support fees.

¹³⁰ We have reviewed a selection of evaluation studies of existing or previous on demand bus schemes, of which five are Australian and the remainder are from a wide variety of countries including New Zealand, U.S.A, the United Kingdom, Italy, Finland and others. See Enoch, M et al, *Intermode: Innovations in demand responsive transport*, 2004; Enoch, M et al, *Why do demand responsive transport systems fail?*, 2006; Currie, G. *Demand responsive transit development program report final report*, Institute of Transport Studies, Monash University, 2007; and Scott, R, *Demand responsive passenger transport in low-demand situations*, 2010.

AECOM found that the additional fixed costs of a bus operator providing on demand services (ie, overheads, including a booking management system) vary according to how much in advance bookings can be made. AECOM reported that if bookings are made the day before, the overheads to provide an on demand service represent around 140% to 150% of those to provide a fixed route service. If bookings can be made 30 to 60 minutes in advance, they represent around 180% of those to provide a fixed route service.¹³¹

The use of smart technologies can minimise the additional costs of on demand services. For example, these technologies can be used to optimise the route of an on demand service to pick up booked passengers, and thus minimise the vehicle km costs. They can also reduce the booking system costs. In addition, if they allow real-time tracking, they can also enable a higher level of service and thus attract a further increase in patronage and potentially fare revenue. For example, if people can see where a service is, and where it intends to stop to pick up booked passengers, they can make a last minute booking.

Martin's Albury noted that they already use a smart phone app that informs passengers about the location of their buses at any time.¹³² TfNSW also commented that while the technology is maturing, community expectations are continuing to rise.¹³³ However, the CPSA considered that many older passengers using on demand services may not have access to smart phones, the internet and some may be hesitant about using credit cards to pay for services.¹³⁴ Our ORIMA survey supports that there are differences in the preferences for booking on demand services which depend on the age of the passenger. For example, young people would prefer to use apps to book an on demand service, while older people would prefer phone bookings.¹³⁵

Our analysis also suggests that people may be willing to pay more for the higher level of service provided by an on demand service. In our ORIMA survey, we asked respondents how much extra they would be willing to pay for on demand bus services. We found that:

- ▼ Most respondents (82%) were moderately willing to pay an extra \$2 for an on demand service, and 59% were highly willing.
- ▼ More than half of respondents (57%) were moderately willing to pay an extra \$5, and 31% were highly willing.
- ▼ Around a third (36%) were moderately willing to pay an extra \$10, and 13% were highly willing.
- ▼ Older people were significantly less likely to be willing to pay either an extra \$5 or \$10 for an on demand service than younger people.¹³⁶

In the short term, the cost per passenger journey provides a useful indicator of whether or not providing an on demand bus service (or adding a flexible component to a fixed bus service), is likely to be cost-effective. Although the total costs of providing an on demand

¹³¹ AECOM, *Efficient costs of rural and regional bus operators – Final Report*, December 2017, p 42.

¹³² Transcript of Wagga Wagga public hearing on 7 November 2017, p 35 and <http://www.martinsalbury.com.au/>, accessed on 28 November 2017.

¹³³ Transcript of Wagga Wagga public hearing on 7 November 2017, p 40.

¹³⁴ Combined Pensioners and Superannuants Association submission to IPART Draft Report, November 2017, p 6.

¹³⁵ ORIMA Research, *Survey of rural and regional buses and on-demand transport services*, 9 August 2017, p B33.

¹³⁶ ORIMA Research, *Survey of rural and regional buses and on-demand transport services*, 9 August 2017, pp B31-B32.

service are likely to be higher, if it attracts sufficient additional passengers the cost per passenger journey should be lower than for a fixed route service.

On the other hand, if an on demand service cannot be provided for a lower cost per passenger journey than a fixed route service, then it is not attracting sufficient additional customers to indicate that it is a valued service.

We acknowledge that only a small proportion of bus passengers currently pay the full adult fare. This means that on demand bus routes which serve mostly concession passengers would need to attract more passengers to generate fare revenue to offset additional delivery costs of providing on demand services.

7.2.2 Services must be well-targeted to address an identified community need

For on demand services to attract additional customers, they must be designed to address an identified community need that is unmet or inadequately met by existing fixed route services.

In Australia and elsewhere, on demand bus services are often designed to transport older people or people with a disability who cannot access traditional public transport services. For example, NSW's Community Transport services have evolved to address this need. Eligible passengers can book a trip from a local Community Transport provider, usually several days in advance. The trip may be in a regular car, or a small bus or minivan.

The CPSA commented that as older people and low income households may not have access to the internet and smart phones, this should be considered when designing the booking and payment system for on demand services.¹³⁷ We agree that any technologies used to deliver on demand services need to be appropriate for the passengers using the service.

On demand services have developed to meet a need for some flexibility about where people start or finish their journey and the time that the journey is made. Some examples of on demand services in rural and regional areas that have been targeted to serve a specific community need, include:

- ▼ Airport shuttles: These typically pick people up at their door, and drop them off only at the airport, at a time that allows them to catch their flight. Costs of running the service are usually fully recovered from passengers, who typically pay a fare that is less than it would cost them to take a taxi but higher than the fare for a fixed-route bus service.
- ▼ Employer-sponsored or business park shuttle: These are specifically designed to transport workers to and from their place of employment, to their homes or to a mass transit hub like a train station. The owner of the employment premises typically pays for the cost of the service with passengers paying no fare.
- ▼ Courtesy Transport: This type of transport is often provided by a local pub, other licensed venue or community centres to carry people specifically to and from their premises. As above, the premise owner usually pays for the cost of the service with passengers not paying a fare.

¹³⁷ Combined Pensioners and Superannuants Association of NSW submission to IPART Draft Report, November 2017, pp 6-7.

In other cases, on demand services are designed to fill gaps in fixed route services, such as infrequent fixed services or limited fixed stops. For example, in the Queanbeyan area, the contracted bus operator (QCity Transit) has been operating an on demand service called LocalLink.¹³⁸ QCity Transit initiated the service after observing poor patronage on certain fixed routes and with the aim of improving transport options in the local community. The LocalLink bus picks up customers (who book the service between a day to several weeks in advance) at their home, and drops them at a small number of fixed locations in town.

7.2.3 Services must be well-marketed so communities are aware of them and understand how they work

For on demand services to attract additional customers, the communities they serve must be aware of the service and understand how it works. Experience to date shows that this requires effective community awareness and engagement campaigns, and on-going marketing. The marketing needs to be tailored to the local community and the service providers need to engage with their local community.

Our stakeholder feedback also highlighted the importance of community engagement and awareness of on demand bus services. QCity Transit emphasised the importance of its ongoing marketing and community awareness campaigns to maintain passenger numbers in operating its LocalLink service.¹³⁹

Findings

- 3 In the short term, for on demand bus services to be cost-effective in rural and regional NSW, they would need to:
 - attract sufficient additional usage and fare revenue to offset the additional costs of provision
 - be well-targeted to address an identified community need
 - be well-marketed to ensure the community is aware of them and understand how they work.

7.3 What types of on demand services are best-suited in rural and regional NSW?

Design of demand services vary widely, depending on the community need they are targeted to address. We identified four broad options, each of which has several variations. These include:

1. Fixed route plus deviations

- a) A fixed route bus service that deviates from its route to pick up booked customers from pre-arranged, mutually convenient stops and drops them at fixed stops.

¹³⁸ Route 840 Queanbeyan Demand Responsive Service and Route 850 Bungendore Demand Responsive Service at <http://qcitytransit.com.au/timetables-h>

¹³⁹ IPART consultation with QCity Transit on 3 July 2017.

- b) The same as option 1a, but can also pick up booked customers from their home.
 - c) The same as option 1b, but can also drop booked customers at pre-arranged destinations.
- 2. Fixed route plus roam zones**
- a) A fixed route bus service that can pick up booked customers from many possible pre-arranged stops (including their home) within a defined roam zone, and drop them at just one or a few destinations at the other end. For example, these destinations might include the local airport, hospital and shopping centre. QCity's *LocalLink* service, discussed above, is an example of this type of service, also known as a 'many to one/few' service.
 - b) The same as option 2a, but can pick up booked customers from pre-arranged stops within more than one roam zone, and drop them at pre-arranged stops within these roam zones, or within a destination roam zone ('many to many').
 - c) The same as option 2b, but can also deviate from the fixed route between the defined roam zones to up pick up and drop off booked customers at pre-arranged stops ('many to many with trunk deviations').
- 3. Demand responsive loop or roam zone**
- d) A bus service that travels around a fixed loop and stops only to pick up booked customers at pre-arranged places and drops them at a few fixed destinations.
 - e) A bus service that travels within a defined roam zone and picks up and drops off booked customers at any pre-arranged spot within that zone.
- 4. Fully flexible, point to point**
- f) A taxi or Community Transport service: a regular car, maxi taxi, or minibus service that picks up a booked customer at the place and time of their choosing and drops them off at the place of their choosing.
 - g) The same as option 4a, but can stop at several places before the final destination, perhaps to share the vehicle with another booked customer or to assist the customer with errands.

Figure 7.1 and Figure 7.2 illustrate these options, and show that they form a spectrum from least flexible (option 1a) to most flexible (option 4b). The level of flexibility affects the total cost to provide the service, and uncertainty about vehicle km. The greater the flexibility, the higher the total cost and uncertainty about service km. See Appendix H for more information on the advantages and limitations of the different types of on demand services presented in Figure 7.1 and Figure 7.2.

Legend for on demand route types






	Fixed bus stop where vehicle guaranteed to stop
	Fixed stop that vehicle visits only if customer books
	Booked doorstep pickup or drop off
	Standard route terminus – begin/end point
	Booked or fixed specific destination other than fixed route terminus – shops, hospital, local fair, etc.
.....	Fixed route comparison

Figure 7.1 Types of on demand services

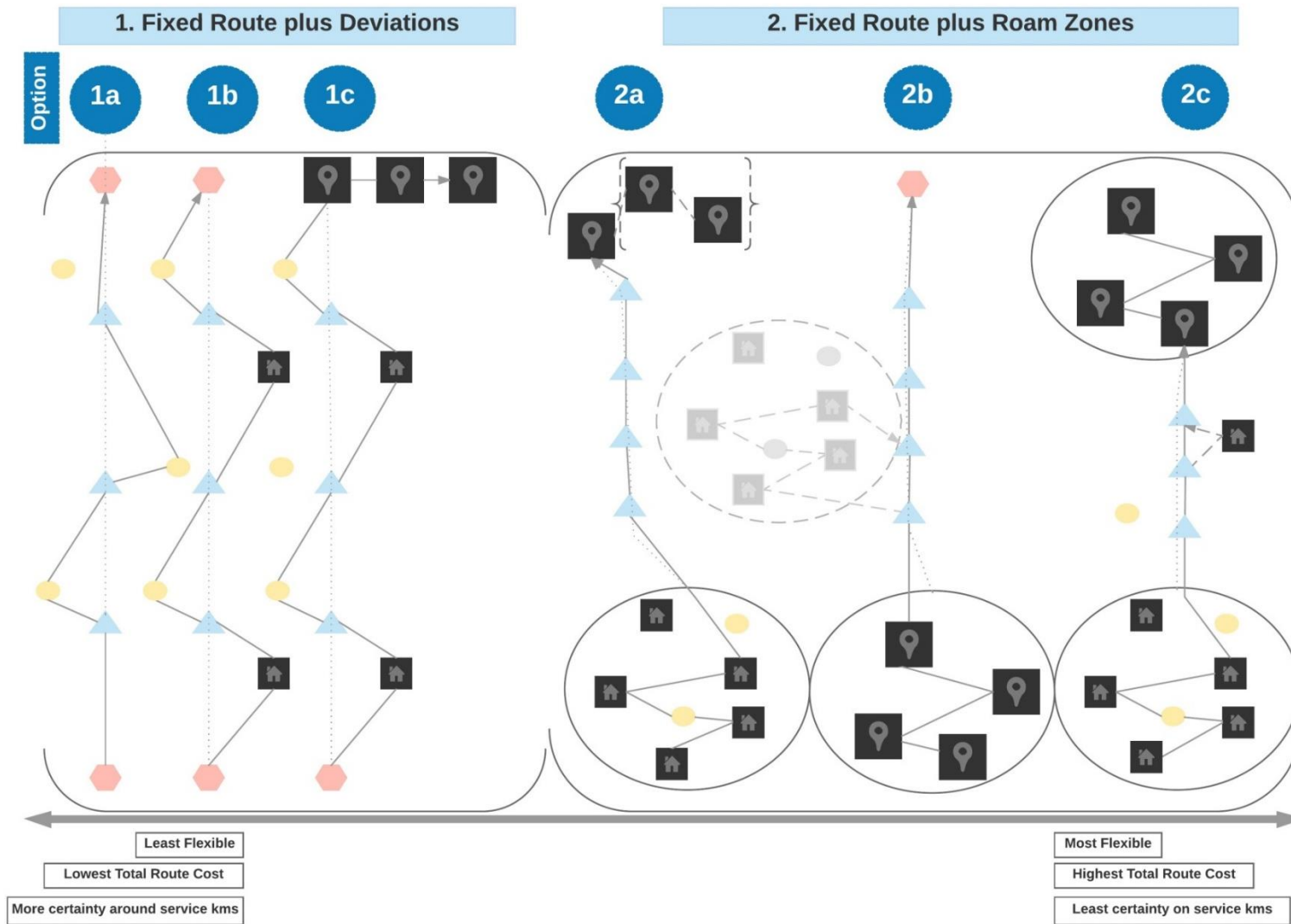
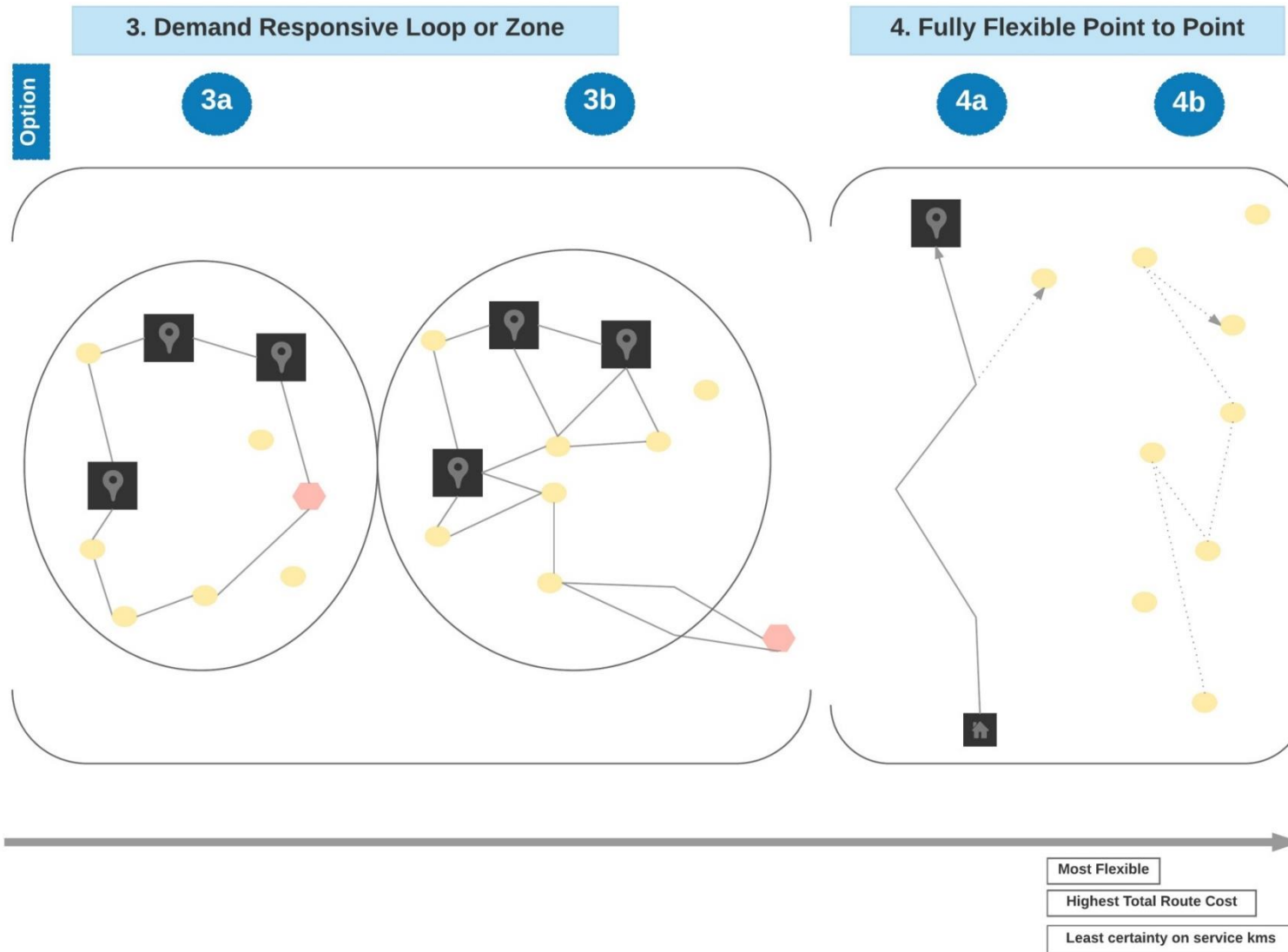


Figure 7.2 Types of on demand services (continued)



We considered each of the above options, taking account of the advantages and limitations (summarised in Appendix H) and stakeholder comments. We also found that:

- ▼ In the **short term**, during the life of current bus contracts, the options likely to be cost-effective in rural and regional NSW are those that add a flexible, on demand component to an existing fixed route. In particular, we consider options 1a, 1b and 2a are most likely to be successful.
- ▼ In the **longer term**, after the current contracts end, a wider variety of options may be cost-effective, including demand-responsive bus services that travel in a loop or roam zone (options 3a and 3b).

7.3.1 In the shorter term, adding on demand components to existing fixed route services are likely to be cost-effective

As Chapter 2 discussed, the Government currently funds the provision of fixed route bus services under contracts with a 5-year term (with an option to extend a further 3 years). The contracts specify the services the bus operator will provide (including routes and timetables), and the payments it will receive. Bus operators also retain farebox revenue.¹⁴⁰

The specified services can only be changed if a contract variation is approved by TfNSW.¹⁴¹ Therefore, during the life of the contracts, on demand services could only be used to supplement or potentially replace poorly patronised fixed route services.

In this context, modifying an existing bus service by enabling it to deviate from the fixed route and bus stops to pick up booked customers at a mutually convenient, pre-arranged place (options 1a and 1b) is likely to be feasible and cost-effective because these options:

- ▼ involve lower total additional costs than other more flexible options, so would not need to attract a large number of additional customers to offset these costs
- ▼ require limited changes to the fixed route and so would be relatively easy to design and operate
- ▼ would make it easier and more convenient for people who live near the fixed route but have difficulty getting to a fixed bus stop to use the service, and
- ▼ would be simple for customers to understand, making it easier to encourage additional use of the service.

Modifying an existing bus service by enabling it to pick up booked customers from many possible pre-arranged stops within a roam zone, and drop them at a few destinations at the other end (option 2a) is also likely to be feasible and cost-effective. This option has similar benefits to 1a and 1b. In addition, it can be used to address a wide range of different needs, such as filling connection or timetabling gaps in existing public transport, providing a targeted feeder service to important destinations, or providing better access for less mobile passengers.

¹⁴⁰ See Table B.2 in Appendix B which describes the features of the new bus contracts.

¹⁴¹ See clause 5.4 on Service Variations in the Rural and Regional Bus Service Contract.

Options with a greater degree of flexibility (2b to 4b) would involve higher total additional costs (due to higher vehicle kms), and more unreliable journey times. This might make it harder to attract sufficient additional customers to offset the additional costs.

In submissions to our Issues Paper, stakeholders generally agreed that combining on demand services with fixed route services may be more likely to work. For example, BusNSW expressed support for modifying poorly patronised routes by introducing an on demand component to make the service more convenient and provide better access.¹⁴² BusNSW also argued that operators should be able to use existing mechanisms in their contracts to achieve this, noting this was consistent with a finding of the recent Legislative Assembly Committee on Community Services inquiry.¹⁴³

These options are also consistent with the flexible transport models in the NSW Government's future transport strategy for regional NSW. In the short term, the NSW Government has identified that 3 models of flexible transport could be introduced. These models are intended to:

1. complement time limited mainstream local public transport services (eg scheduled bus services) in centre/large towns,
2. replace existing time or coverage limited mainstream local public transport service in towns, and
3. introduce services for smaller towns where no mainstream public transport exists.¹⁴⁴

The Government also identified that technology-led innovation has great potential for regional NSW, where new technologies could transform service offerings over longer distances and for smaller populations, with data-driven service models better matching demand to a range of services and vehicle types.¹⁴⁵

The NRMA commented that operating costs are a major factor in the success of on demand services and the most effective type of service needs to target the specific community needs, particularly the capacity and rurality of the town. A small rural town could benefit from on demand services that provide a door-to-door service for pre-booked trips. These communities could benefit from taxi services or community transport being potential providers for on demand services as they are already providing existing services. A regional centre could benefit from converting services operating at set times to and from specific points to a variable non-fixed route that depends on pre-bookings.¹⁴⁶

Another stakeholder also identified that people living in small towns and villages that are a considerable distance from regional centres do not have effective public transport to these centres.¹⁴⁷

Stakeholders also highlighted the need to take local factors – such as geography, population, dwelling density and the physical road network – into account in the design of an on

¹⁴² Bus NSW submission to IPART Issues Paper, June 2017, p 9.

¹⁴³ Legislative Assembly of NSW Committee on Community Services, *Access to Transport for Seniors and Disadvantaged People in Rural and Regional NSW*, December 2016, p vii. Available at <https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-details.aspx?pk=2398#tab-reports>

¹⁴⁴ NSW Government, *Draft Regional NSW Services and Infrastructure Plan*, October 2017, p 105.

¹⁴⁵ NSW Government, *Draft Future Transport Strategy 2056*, October 2017, pp 14-15.

¹⁴⁶ NRMA submission to IPART Draft Report, November 2017, pp 2-3.

¹⁴⁷ G Pund submission to IPART Draft Report, November 2017, p 1.

demand service. BusNSW emphasised that each local community should be assessed case-by-case based on local needs, population density, road infrastructure and topography.¹⁴⁸ The current road network will be an important factor in assessing the feasibility of providing on demand bus services. For example, cul-de-sacs in roam zone areas may constrain the number of possible routes through the zone, while restrictions on where buses can safely turn off and on to a highway may constrain where they can deviate from the fixed route.

At our public hearings in Coffs Harbour and Wagga Wagga, bus operators discussed a wide range of issues on how on demand services could be developed within their existing contracts. QCity Transit shared their experience in operating a successful on demand service over a number of years (see Box 7.1 for a summary of the key points from these discussions).

We consider that there are opportunities to improve fixed route bus services in rural and regional NSW. We have developed a framework to identify these opportunities (see Box 8.1). Bus operators have knowledge of local communities and are in a good position to suggest how these services could be improved. This could involve introducing an on demand component to an existing fixed route service.

QCity Transit commented that they have a couple of route services that probably could benefit from changing the nature of the service to on demand. It noted that its bus contract could reflect a mix of fixed route and on demand services and that these different services can complement each other.¹⁴⁹ We consider that all bus operators and TfNSW should explore the opportunity of improving these services.

In delivering on demand transport, the NRMA recommended that the NSW Government consider what role the available fleets will play. Potential operational barriers to on demand transport include the type of existing fleet available for on demand services, how the fleet is utilised and its accessibility for patrons.¹⁵⁰ At the Wagga Wagga public hearing, TfNSW raised a related issue about bus operators potentially having sub-contracting arrangements with community transport providers or taxis.¹⁵¹ This reflects government's strategic direction that future transport is about customer-focused transport that integrates technology to offer seamless experiences.¹⁵² For example, more personalised services for passengers could bundle traditional transport 'modes' (eg. bus, community transport or train) with technology platforms and new service offerings like car share and rideshare.

¹⁴⁸ Bus NSW submission to IPART Issues Paper, June 2017, p 9.

¹⁴⁹ Transcript of Wagga Wagga public hearing on 7 November 2017, p 30.

¹⁵⁰ NRMA submission to IPART Draft Report, November 2017, p 3.

¹⁵¹ Transcript of Wagga Wagga public hearing on 7 November 2017, p 40.

¹⁵² NSW Government, *Draft Future Transport Strategy 2056*, October 2017, p 19.

Box 7.1 Developing and implementing on demand bus services under existing contracts

At our public hearings, QCity Transit provided a number of comments about their on demand services, Locallink:

- ▼ The service is designed to help people who have accessibility issues in getting to bus stops.
- ▼ Awareness of the service is very important. A broad marketing strategy is used as the area has a mix of demographics.
- ▼ The timetable service has a set route that runs without an on demand service. The on demand services are clearly marked on the timetable that this is a “LocalLink service”. Passengers ring up to book the LocalLink service and they are collected from their homes.
- ▼ If bookings are high, then passengers are informed that arrival times can’t be guaranteed.
- ▼ It is important to use bus drivers that have driven in the area for a long time. Drivers are responsible for working out the route from the list of booked passengers.
- ▼ To provide on demand services requires clever rostering of bus drivers and management of shifts.
- ▼ Under their bus contract the on demand service is captured by using average kilometres travelled.

Source: Transcript of Wagga Wagga Public Hearing on 7 November 2017.

7.3.2 In the longer term, a wider variety of on demand service types should be considered as a part of a package of transport options

In the longer-term, we consider that there is an opportunity for TfNSW to seek proposals from the market to increase the cost-effectiveness of the current bus contracts to improve service outcomes for passengers and provide better value for taxpayers. This can be achieved by competitive tendering **transport services** in each region.

Market-driven solutions to providing transport services can deliver innovative operating models that provide a better quality of service for passengers in a cost-effective manner. These solutions should consider on demand designs as part of a package of transport services provided in each region. The NRMA supported improved contestability and market driven solutions to provide a better quality of service for regional passengers. Further, competition in the rural and regional transport services market will help ensure the right mix of transport – bus, taxi, ride share and community transport – is delivered.¹⁵³

We consider that options 3a and 3b may work well in regional centres where there are issues with the frequency of bus services and larger populations. However, the cost-effectiveness of these options would need to be established, especially where population density within the loop or roam zone is likely to be low.

¹⁵³ NRMA submission to IPART Draft Report, November 2017, p 3.

7.4 What fares should customers pay for on demand bus services?

The fares charged for an on demand bus service will influence the extent to which it can be delivered cost effectively. For example, the fare needs to be simple and low enough to encourage additional customers to use the service, and high enough to ensure these customers generate sufficient additional fare revenue to offset the additional costs of providing the service.

To consider what fares customers should pay for on demand services in rural and regional NSW, we have developed pricing principles for these services (see Box 7.2) and then applied these principles. We found that:

- ▼ a surcharge on top of the fixed route fare appears to be the clearest and most transparent pricing mechanism
- ▼ operators should set the level of surcharge between \$0 and \$5 (maximum including GST) after considering:
 - their customers' willingness to pay and its likely impact on demand for the service, and
 - the design of the flexible service component and how this influences the additional costs of providing it
- ▼ a reduced surcharge should be available for customers eligible for concession fares.

Box 7.2 Pricing principles for on demand bus services

We consider fares for on demand bus services should balance the following pricing principles:

1. Fares should take account of the higher level of service and the additional delivery costs of on demand services.
2. Fares should be tailored to the route and region, as uniform fares may constrain the development of cost-effective services that meet community needs.
3. Fares should have some consistency across the state so that customers know what to expect.
4. Fares should be transparent and simple.
5. Fares should promote access to transport.

7.4.1 A surcharge on fixed route fare is the clearest and most simple pricing mechanism

In line with good practice, fares for on demand services should be clear and simple for operators and passengers. Clear and simple fares are also necessary to encourage additional customers to use the services, and thus help offset the additional costs of providing the service.

We consider that a surcharge on top of the fixed route fare (and applicable only to those customers who book the on demand component of the service) is the clearest and most simple pricing mechanism available. It is also the pricing mechanism used by existing on

demand services, such as Melbourne's Telebus which has operated successfully for more than 30 years.¹⁵⁴

7.4.2 Operators should set the surcharge between \$0 and \$5 based on customers' willingness to pay and likely impact on demand

To encourage additional customers, the level of the surcharge should primarily be based on customers' willingness to pay and its likely impact on demand for the service.

As discussed above, our ORIMA research survey found that approximately half of respondents said they were moderately willing to pay an extra \$5 for on demand bus services (see section 7.2.1). If the surcharge were set at this level, on demand services would be priced somewhere between fixed route bus services and taxi services. It would also be comparable to the surcharge charged by the Melbourne Telebus.

However, this is not to say that the surcharge for all on demand bus services should be set at \$5. For some services, the additional patronage that the on demand component attracts may generate sufficient additional fare revenue without charging a surcharge. Alternatively, this patronage may grow over time to allow the surcharge to be reduced towards zero. QCity's *LocalLink* service (see section 7.2.2) does not charge a surcharge to customers who book a pick up from their home.

We consider bus operators know their costs and passengers best and are in the best position to understand how much they are willing to pay for an on demand service, and what level of surcharge is likely to generate sufficient additional demand. Therefore, they should set the surcharge taking these factors into account, up to a maximum of \$5.

Stakeholders supported this approach in response to our Draft Report. BusNSW supported a fare for on demand services that is commensurate with the type of on demand service and how it compares to a fixed route service. However, BusNSW considered that the fare to be charged for an on demand service is a matter for TfNSW.¹⁵⁵

Another stakeholder also supported a surcharge for an on demand service.¹⁵⁶ At our public hearings, bus operators sought clarification on how the surcharge would work. The surcharge is designed as a maximum per passenger charge to provide bus operators with the maximum flexibility. For example, a bus operator could introduce a family deal to charge for on demand services.

7.5 Operators should also consider the design of the on demand component and how it influences the additional delivery costs

The additional costs of providing the on demand component of a bus service varies according to its design. This suggests that when operators are deciding on the level of any surcharge they should consider the nature of the service including any patronage response.

For example, our analysis indicates:

¹⁵⁴ Scott, R, *Demand responsive passenger transport in low-demand situations*, 2010, p 65.

¹⁵⁵ BusNSW submission to IPART Draft Report, p 8.

¹⁵⁶ Anonymous submission on IPART Draft Report, p 4.

- ▼ For a fixed route with roam zone (option 2a), bus operators should consider the geographic size of the zone and the likely increase in patronage when determining the level of any surcharge. For example, a small and well-designed roam zone can almost double the route length if there are lots of pickups within the zone.
- ▼ For a fixed route with deviations (options 1a and 1b), bus operators should consider the number of deviations and their distance from the fixed route corridors as this drives the total additional delivery cost.
- ▼ For on demand bus services where the main source of flexibility is timing, or services that only run when booked, surcharges should vary with the notice required for booking the service.
- ▼ For fully flexible, point to point (option 4) bus operators would need to consider any additional costs of booking systems in particular as labour is a significant cost. For example, the more time in advance that bookings are made, the easier it will be for operators to effectively service demand.

7.5.1 Reduced surcharges should be available to concession passengers

We consider the surcharge for the on demand component should be reduced for passengers eligible for concession fares. This would promote access for the group with the greatest need for on demand services, and reduce the risk of poor patronage in a situation where there is generally low capacity to pay extra for on demand services.

The Combined Pensioners and Superannuants Association of NSW supported the recommendation that on demand bus operators should make reduced surcharges available to concession passengers.¹⁵⁷ BusNSW considered that applying a concession for approved beneficiaries on a surcharge for on demand services is a matter for TfNSW.¹⁵⁸

Recommendation

- 5 Bus operators be able to charge customers who book an on demand service a surcharge of between \$0 and \$5 (including GST) on top of the fixed route fare.
 - Bus operators should set the level of surcharge based on customers' willingness to pay, the likely impact of the surcharge on the level of demand, and the likely impact of the design of the on demand component and its impact on the additional delivery costs.
 - Bus operators should make reduced surcharges available to concession passengers.

¹⁵⁷ Combined Pensioners and Superannuants Association of NSW submission to IPART Draft Report, p 7.

¹⁵⁸ BusNSW submission to IPART Draft Report, p 8.

8 Procuring transport services including on demand

As noted in Chapter 2, the Government's draft future transport strategy expects more flexible and personalised service delivery options to meet the needs of rural and regional communities.¹⁵⁹ It also considers that market development for transport services will be driven by initiatives including public procurement of innovative service offerings, on demand services and new technology-enabled services.¹⁶⁰

Under this strategy, the government's role is changing from the default transport provider to ensuring the right policy and regulatory frameworks are in place to support new service providers. Government will investigate more innovative procurement practices to better respond to customer needs and deliver better value for money.

TfNSW has recently called for expressions of interest for on demand transport services in rural and regional NSW.¹⁶¹ It is also trialling on demand services, including a weekly booked on demand bus service in the Dubbo area.¹⁶² Depending on the results of these trials, it may decide to procure on demand services during the life of the current bus contracts or after these contracts end.

In addition, TfNSW is also seeking expressions of interest for connected and automated vehicle trials across regional NSW. These trials for driverless vehicles will focus on customer mobility and the challenges of introducing these technologies in regional areas.¹⁶³

To assist TfNSW, we have considered how on demand transport services can be procured in rural and regional areas so they deliver better value for money for both their customers and NSW taxpayers. The sections below provide an overview of our recommendations, then discusses them in more detail.

8.1 Overview of findings and recommendations

In the short term, there is potential to procure cost-effective on demand services to:

- ▼ improve existing services under the current bus contracts, where TfNSW has identified a transport need could be better met by adding an on demand component to a fixed route bus service, or

¹⁵⁹ NSW Government, *Draft Regional NSW Services and Infrastructure Plan*, October 2017.

¹⁶⁰ NSW Government, *Draft Future Transport Strategy 2056*, October 2017, p 27.

¹⁶¹ NSW Government Media Release, On Demand Transport for Regional NSW, 23 November 2017 at <https://www.transport.nsw.gov.au/news-and-events/media-releases/on-demand-transport-for-regional-nsw>, accessed 29 November 2017.

¹⁶² The Dubbo to Tottenham booked transport service is a six-month trial that commenced in May 2017. <https://transportnsw.info/tottenham-dubbo-service>

¹⁶³ TfNSW, *Driverless vehicle projects*, <https://www.transport.nsw.gov.au/projects/programs/smart-innovation-centre/driverless-vehicle-projects#Regional>, accessed on 5 December 2017.

- ▼ provide **new** transport services in addition to those under these contracts, where TfNSW has identified a new transport need, for example to serve a regional growth area or ageing population.

To improve existing services, we are recommending TfNSW prioritise and review existing fixed route services with relatively high costs and low patronage levels (or high cost per passenger journey) to identify opportunities to modify them to better meet community needs (and thus attract additional customers). Where this is the case, it should then negotiate with bus operators to vary the contracted service without increasing the existing cost to government.

In response to stakeholder feedback, we have amended our recommendation and framework (Box 8.2) for procuring new transport services in the short term. TfNSW should consider the existing network when deciding whether to use a competitive tender process or seek proposals from incumbent transport providers. If the new transport services overlap with an existing network, then TfNSW should invite proposals from incumbent operators and select the proposal that provides a higher level of customer service for the least cost. However, if the service is not part of an existing network (such as a new service from a rural town to a regional centre) then a competitive tender process should be used.

In the longer term, when the current contract period ends, there is an opportunity to significantly improve the value for money that public transport services in rural and regional NSW provide their local communities and NSW taxpayers. We are recommending TfNSW procure all transport services through a competitive tendering process, including inviting proposals for innovative transport services (across all transport modes) that provide improved levels of service and greater flexibility to meet community needs at least cost.

We consider that a well-designed competitive tender for transport services should assist in integrating and optimising these services across bus operators and also across different transport modes (including bus, community transport and taxi) in a regional area. Competition – both for the market and in the market, encourages operators to reduce costs, improve their services and innovate. A market-based approach could also be used to create competition for the availability of any government subsidy.

We have developed a series of frameworks and models to assist TfNSW in implementing our recommendations.

8.2 Improving services under existing bus contracts

As Chapter 6 discussed, AECOM's cost analysis indicates that on average, the contract cost of providing regular passenger services in rural and regional NSW is significantly higher than the estimated efficient cost.

We have recommended that TfNSW review the existing bus services over time to assess whether the contract cost can be reduced and/or patronage can be increased. We consider that TfNSW should prioritise those service areas where the contract cost is more than 25% higher than the efficient cost (see section 6.2.3). As part of this review, it should consider whether patronage can be increased by providing on demand services.

To assist TfNSW in implementing this recommendation, we have developed a framework, outlined in Box 8.1. This framework is intended to complement the existing Public Transport Service Planning Guidelines for Rural and Regional NSW,¹⁶⁴ and be applied in the context of future transport plan for regional NSW.¹⁶⁵

We have also developed a bus route cost model to identify the high priority bus services for improvement (in Step 2 of the framework). This model estimates the cost per passenger journey for a regular passenger route using AECOM's efficient unit costs and information on 270 regular passenger routes. A copy of the bus route cost model can be found on our website and Appendix G provides further details on the model.

As a relatively high cost per passenger journey indicates that a service has high delivery costs and/or low levels of usage, it is a good indicator that the service is not cost-effective. By reviewing these services and identifying opportunities to reduce costs and increase usage (for example, by adjusting the route or timetable, or adding a well-targeted on demand component) it may be possible to better meet the transport needs of rural and regional communities without increasing the contract costs.

CPSA argued that bus routes with low patronage must not be abandoned on the grounds of cost-efficiency. Further, cost efficiency should not be considered above the obligation to provide essential services to people in rural and regional areas.¹⁶⁶

There are a number of bus routes in rural and regional areas that have very low levels of patronage. Our final decision is to reduce maximum fares on average by 29% and we expect an increase in patronage. As discussed above, we also consider that under the current contracts there is an opportunity for TfNSW and bus operators to vary services that provide low value for money (ie, those service areas where the contract costs is more than 25% higher than the efficient cost). This could involve better targeting services to meet community needs eg. improving the timetable, changing the route or by introducing an on demand service.

Under the current contracts a Bus Service Alteration Request (BSAR)¹⁶⁷ is available for operators to request changes in service. TfNSW and bus operators can also agree to vary the services (for example following a review of services). We consider that bus operators and TfNSW should consider service variations across multiple routes with one operator.

Recommendation

- 6 In the short term, TfNSW use the framework (Box 8.1) to identify the contracted bus services that provide relatively low value for money and negotiate with bus operators to vary these services to deliver a better service to customers, without increasing existing contract costs.

¹⁶⁴ Transport for NSW, Public Transport Service Planning Guidelines: Rural and Regional NSW, October 2015.

¹⁶⁵ NSW Government, *Draft Future Transport Strategy 2056*, October 2017.

¹⁶⁶ Combined Pensioners and Superannuants Association of NSW submission to IPART Draft Report, p 6.

¹⁶⁷ See clause 5.4 of the Rural and Regional Bus Service Contract.

Box 8.1 Framework for improving existing services under bus contracts

1. Assess community needs for public transport services against current services

Identify the public transport needs for a regional community and compare with the current mix of public transport services in the area to identify unmet or inadequately met needs.

2. Identify high priority bus services for improvement

Using IPART's bus route cost model, estimate the cost per passenger journey for each contracted service. Identify and prioritise those routes where the actual cost per passenger journey is 25% or more higher than the efficient cost per passenger journey.

3. Assess high priority services to identify opportunities for improvement

Assess each high priority service to identify opportunities to improve its design to reduce the delivery cost and/or provide a better level of service for the same cost. This assessment should consider routes, timetables, bus sizes and patronage. It should take account of demographic and geographic characteristics of the area in which the service is provided, and how adequately the service meets identified community transport needs.

The assessment should also consider whether modifying the service by adding one or more on demand components could improve patronage (and thus reduce the cost per passenger journey), taking account of IPART's findings and recommendations on the types of on demand services most suited to rural and regional NSW and the conditions that need to be met for them to be cost-effective (see Chapter 7).

Where two or more high priority services are provided by the same bus operator, these services should be assessed together. There may be opportunities to save costs by better targeting or optimising the route in one service to free-up funds to improve the level of service on another.

4. Negotiate to implement opportunities for improvement through variations to the contract

Where Step 3 identifies feasible opportunities to improve the service(s) in the short term, negotiate with the bus operator to agree on a variation to deliver the improved service(s) under the existing contract without increasing the contract cost.

Where an improved service includes an on demand component, the negotiation should take account of the potential for this component to attract higher patronage and charge a surcharge on top of the fixed route fare, and thus generate higher fare revenue to offset the additional delivery costs.

5. Set fares for on demand bus service components

Where the improved service includes an on demand component, ask the bus operator to propose a fare surcharge for this component, up to a maximum of \$5 (including GST). The surcharge would be applicable to booked customers using the on demand service, and would be charged in addition to the fare for the fixed route component. Bus operators are in the best position to decide whether and how much customers should pay for the on demand service to reflect its better level of service and higher delivery cost.

The NRMA commented that local councils should also be incentivised to contribute to the success of on demand transport through appropriate planning and zoning support. Marketing and promotion in the local area will be critical to addressing barriers to adoption.

The NRMA recommended that local councils be resourced to deliver this in conjunction with an operator, such as funding for promotion as part of a community transport grant.¹⁶⁸

We consider that TfNSW should consider how the provision of different types of transport services (such as more flexible, on demand services) could change the need for bus stop infrastructure. The NSW Government currently provides subsidies for the construction or upgrade of bus stops in country NSW (generally owned and maintained by councils) through the Country Passenger Transport Infrastructure Grants Scheme.¹⁶⁹ Councils and transport providers are currently eligible for funds and \$3.25 million is available in the 2017-19 funding round.

However, the need for bus stop infrastructure may change with more provision of on demand services. For example, an upgrade to a bus shelter in a particular area may not be necessary if an on demand service collects passengers from their homes. In the future, if these funds are not needed, then TfNSW could consider how funds could be used to develop or promote on demand services.

8.3 Providing new transport services

Over time, new and different transport needs are likely to emerge across regional NSW. Some examples could include a new suburb is built on the fringe of a growing regional centre or significant demographic changes in a regional community. Depending on the regional area, this need could potentially be met through a range of service types delivered by a range of operators such as bus, taxi, community transport, and ride/car share.

In our Draft Report we recommended that these new transport services should be procured using a competitive tender process. BusNSW commented that there is a need to consider the context of the additional service before determining how the service should be procured. In particular, if the additional services are part of an existing network, there is a process to vary services under current rural and regional bus contracts.¹⁷⁰

BusNSW argued that if the additional service is to address a capacity issue and the service is operating fully/partly along the same route (or within close proximity) to an existing service, then this additional service should be included in the bus operator's contract (via the Bus Service Alteration Request) and not go to tender. However, BusNSW acknowledged that a tender may be appropriate for a new service in a greenfield area.¹⁷¹

An individual stakeholder was concerned that competitive tendering for transport services could result in fragmentation of services within geographical areas. In particular, users of multiple services may need to pay fares to multiple operators (eg, the on demand operator to access the city centre, then the bus operator while travelling around the city). They suggested that any tender process should ensure that transfers between existing and additional services can occur without fare penalty.¹⁷²

¹⁶⁸ NRMA submission to IPART Draft Report, November 2017, p 3.

¹⁶⁹ See Country Passenger Transport Infrastructure Grants Scheme at <https://www.transport.nsw.gov.au/operations/community-transport-operators/country-passenger-transport-infrastructure-grants-scheme>, accessed on 15 November 2017.

¹⁷⁰ BusNSW submission to IPART Draft Report, November 2017, p 9.

¹⁷¹ BusNSW submission to IPART Draft Report, November 2017, p 9.

¹⁷² Anonymous submission to IPART Draft Report, November 2017, p 5.

In its submission, the NRMA supported improved contestability and market driven solutions to provide a better quality of service to rural and regional passengers in both the short and long term. Further, it argued that more competition in the regional transport services market will help to ensure the right mix of transport (bus, taxi, ride share and community transport) is delivered.¹⁷³

We consider that expressions of interest and/or competitive tenders for transport services can play an important role in ensuring that both customers and taxpayers benefit from efficiency improvements in the delivery of transport services (such as improvements in smart technologies for bus scheduling, bus tracking and booking services). Seeking expressions of interest and/or competitive tenders for **transport services** rather than bus services allows for better integration and optimisation across all transport modes to ensure the most cost-effective solution is procured. For example, in a regional area a new transport service could potentially be provided by a bus operator, community transport, a taxi or ride share.

We agree that the introduction of any new transport service should not fragment existing services and customers should not be disadvantaged. Any new transport service needs to be efficiently and effectively integrated into existing regional transport networks.

Where the new transport service overlaps with services provided by existing transport providers (including bus operators and community transport providers), there may be network benefits that enable the incumbent providers to deliver a new transport service in the most cost-effective manner. In some regional areas, there could be several incumbent bus operators that could potentially provide the new transport service. While in other regional areas there may be only one. We consider that there is value seeking proposal/s from more than one transport provider to ensure that any new service is delivered in the most cost-effective manner. Where there is only one incumbent provider, it is important that its proposal presents good value for money.

We have amended the framework for procuring new transport services set out in Box 8.2 to reflect the potential network benefits from incumbent transport providers.

¹⁷³ NRMA submission to IPART Draft Report, November 2017, p 3.

Box 8.2 Framework for procuring new transport services

1. Assess community needs for public transport services needs against current services

Identify the public transport needs for a regional community and compare with the current mix of public transport services in the area. Identify that these needs have changed, for example when a new suburb is built on the fringe of a growing regional centre or changing population in a regional community, and additional transport services should be provided.

2. Invite proposals to provide additional transport services

These transport services could range from fixed route services (bus) to more flexible services (bus, community transport, taxi, hire car ride share).

Where the new transport service overlaps with existing services, seek expressions of interest and/or competitive tenders from incumbent transport providers.

Where the new transport service does not overlap with existing services, invite all potential service providers to submit response/s expressions of interest and/or competitive tenders to provide the additional service.

3. Evaluate proposals and select best value for money

Evaluate proposals based on service quality, quantity and the cost of providing the service. TfNSW should select the service that provides a higher level of customer service for the least cost. Where only one proposal is obtained TfNSW could compare it with the benchmark unit costs in the AECOM study to ensure value for money.

As previously discussed, the NSW Government is currently seeking expressions of interest for on demand services in rural and regional areas. It is seeking proposals from local innovators as well as bus operators, community transport and taxi operators, who know the local areas and understand what customers need. In addition, we note that recently TfNSW sought to competitively procure from the market around 12 new school routes.¹⁷⁴

This new direction in procuring transport services reflects the Government's view that it can grow the level of competition, innovation and entrepreneurship required to deliver service improvements and accessibility for customers.¹⁷⁵ We support this approach and consider that TfNSW should continue to seek responses from the market to ensure that bus contract costs reflect the efficient costs of providing services.

When procuring new transport services, TfNSW should first evaluate whether these services are part of the existing network. If the new transport services are part of an existing network, then services provided by a bus operator can be varied under the current rural and regional bus contracts using the Bus Service Alteration Request process.

However, if the new transport services are not part of an existing network, then a competitive tender process should be used. Introducing competition in and for the rural and regional transport services market would ensure the right mix of bus, ride share, taxi and community transport is delivered.

¹⁷⁴ See TfNSW tender 2017/013. Provision of School Bus Services in Rural and Regional NSW Various Locations. <https://tenders.nsw.gov.au/?event=public.rft.showArchived&RFTUID=59CAA00B-BC53-3BBB-32941729DC9AC546>

¹⁷⁵ NSW Government, *Draft Future Transport Strategy 2056*, October 2017, p 27.

Recommendation

- 7 Where a need for additional transport services in rural and regional areas is identified in the short term, TfNSW seek:
- expressions of interest and/or competitive tenders from incumbent transport provider/s, where these additional services overlap with an existing network, or
 - expressions of interest and/or competitive tenders from all potential service providers, where these additional services are not part of an existing network.

8.4 Procuring transport services in the longer term

We consider that at the end of the current bus contract period there is an opportunity for TfNSW to seek proposals from the market to improve the cost-effectiveness of the current bus contracts, to improve service outcomes for customers and provide better value for taxpayers. This can be achieved by competitive tendering **transport services** in each region.

Market-driven solutions to provide transport services can deliver innovative operating models that provide a better quality of service for passengers in a cost-effective manner. We note that the NSW Government expects that market development for transport services in the future will be driven by initiatives including public procurement of innovative service offerings, on demand services, and new technology enabled services.¹⁷⁶

Procuring transport services from the market should ensure that both customers and taxpayers benefit from efficiency improvements in the delivery of transport services (such as improvements in smart technologies for bus scheduling, bus tracking and booking services). Further, the Government expects that procuring service outcomes will address service deficit in regional NSW through the delivery of flexible transport, fleet services, rideshare and Mobility as a Service models.¹⁷⁷ This is a business model for customers to access transport services by using a single account and booking interface to access a broad range of transport modes, none of which the customer owns.¹⁷⁸ For example, it would allow a customer to access public transport, car sharing and bike sharing using the same system.

In the long term when bus contracts expire in 2024, we consider that TfNSW should procure transport services by region as defined in the Regional Services and Infrastructure Plan.¹⁷⁹ Each region's transport mix should be tailored to provide the appropriate service level given for the population of the region (and likely change in population). Introducing competition **in** and **for** the rural and regional transport services market would ensure the right mix of bus, ride share, taxi and community transport is delivered. For example, instead of subsidising uncommercial bus routes TfNSW could subsidise rides taken by certain passengers or in certain regions rather than specific operators. The effect of this would be operators can compete to deliver innovative transport services and consumers can choose between transport services that meet their requirements.

¹⁷⁶ NSW Government, *Draft Future Transport Strategy 2056*, October 2017, p 27.

¹⁷⁷ NSW Government, *Draft Future Transport Strategy 2056*, October 2017, p 27.

¹⁷⁸ NSW Government, *Draft Future Transport Strategy 2056*, October 2017, p 46.

¹⁷⁹ NSW Government, *Draft Regional NSW Services and Infrastructure Plan*, October 2017, November 2017, p 6.

The best mix of transport services and delivery models may differ across regions and within regions. Depending on the population density and the type of geography (remote, inland, coastal and outer metropolitan), transport services could potentially be delivered in a number of different ways by a range of operators (such as bus, taxi, community transport, and ride/car share).

In areas where there is sufficient demand for transport services, operators could compete in the market to provide these services. In other areas, there may not be sufficient population density to support competition in the market. In these areas, TfNSW should encourage operators to compete for the government subsidy to provide rural and regional transport services.

The transport services to be procured would include both school travel and regular transport services in the region. We note that at the end of the contract period there is still likely to be a need for much of the current bus fleet. School services will continue to be provided and these typically drive peak transport capacity and determine the required fleet size. However, as discussed in Chapter 6, we consider that there are opportunities for these buses to be better utilised in non-school periods.

In the long term when the bus contracts expire, BusNSW supports using the bus contracts to procure services rather than going to the market. BusNSW noted that TfNSW and bus operators must negotiate in good faith to agree to terms of a new contract.¹⁸⁰ As discussed above, the NRMA supported using the market to procure transport services in regional areas and an individual stakeholder was concerned that competitive tendering for transport services could result in fragmentation of services within geographical areas.

The NRMA also proposed that the NSW Government should continue to seek innovative solutions from the marketplace, including tech and industry start-ups, to trial new approaches that overcome some of the challenges of providing on demand services in regional NSW. Any lessons from current pilot programs (such as the on demand bus trial in Dubbo and surrounding regions) should be applied to future pilots.¹⁸¹

As part of the future transport strategy, the Government is introducing a new Regional Transport Network Model¹⁸² to improve connectivity, integrate services and better use capacity.¹⁸³ We consider that if the tender requirements are carefully specified within the context of the Regional Transport Network model, then it should result in better integration and optimisation of transport services in a regional area.

We consider that a well-designed competitive tender should assist in integrating and optimising transport services across bus operators and also across different transport modes (including bus, community transport, taxi and hire vehicles) in a geographic area.

¹⁸⁰ BusNSW submission to IPART Draft Report, November 2017, p 9.

¹⁸¹ NRMA submission to IPART Draft Report, November 2017, p 3.

¹⁸² The Regional Transport Network Model is a 'hub and spoke' network model radiating out from regional cities rather than a network just focused on Sydney. The model is comprised of a range of modes, reflecting the level of demand and distance travelled.

¹⁸³ NSW Government, *Regional NSW Services and Infrastructure Plan*, October 2017, November 2017, p 8.

Recommendation

- 8 TfNSW seek proposals from the market when procuring transport services to operate in rural and regional NSW from 2024. This should include inviting proposals for innovative transport service models that provide improved transport services and greater flexibility to meet the community need at least cost.

In the longer term, we also expect the development of on demand services will be affected by the following factors:

- ▼ **Community acceptance of on demand transport.** The level of community acceptance and understanding of on demand transport services will be important in developing and growing these services in a regional community. Applying lessons learnt from on demand pilot programs will also be important in developing future projects.
- ▼ **Role of smart technologies.** These technologies can improve how a customer plans and books a trip and also how a broader range of potential providers can deliver on demand services. The diffusion of low cost technologies has the potential to transform the delivery of on demand transport services by giving customers more choice, better service quality and convenience.
- ▼ **Government funding arrangements.** The way the government funds transport services in a regional area will affect the delivery on demand services. For example, under the National Disability Insurance Scheme the government is funding clients rather than operators. This means that an individual could choose from service providers in a regional area which may include community transport, taxis or rideshare. In the future, the government may decide to provide the subsidy to the passenger, rather than the service provider and consumers can choose between transport services that meet their requirements.

9 Case studies of on demand services

To test whether the findings on the potential for on demand services to deliver a better transport service for the same or similar cost (discussed in Chapter 7) are reasonable, we developed three case studies. The case studies show improved bus services that combine a flexible on demand component with a fixed route component (Options 1a, Option 1b and Option 2a) could be cost-effective in rural and regional NSW where:

- ▼ the provision and design of the service is well targeted to an identified community need, and
- ▼ the additional usage and fare revenue (including revenue from an optional surcharge up to \$5) is high enough to offset the additional costs of providing the service.

To develop the case studies, we have constructed a hypothetical regional city with a population of around 60,000. Drawing on Australian Bureau of Statistics data and other available data, we made reasonable assumptions about the median household income and the existing fixed route bus services, and considered the local geography, road network, density, and location of important services and transport hubs (eg, train stations). We then developed three potential bus services with both on demand and fixed route components, and analysed their likely cost-effectiveness.

The sections below provide an overview of the assumptions we made about the hypothetical regional city, describe each case study service, and then discuss our analysis.

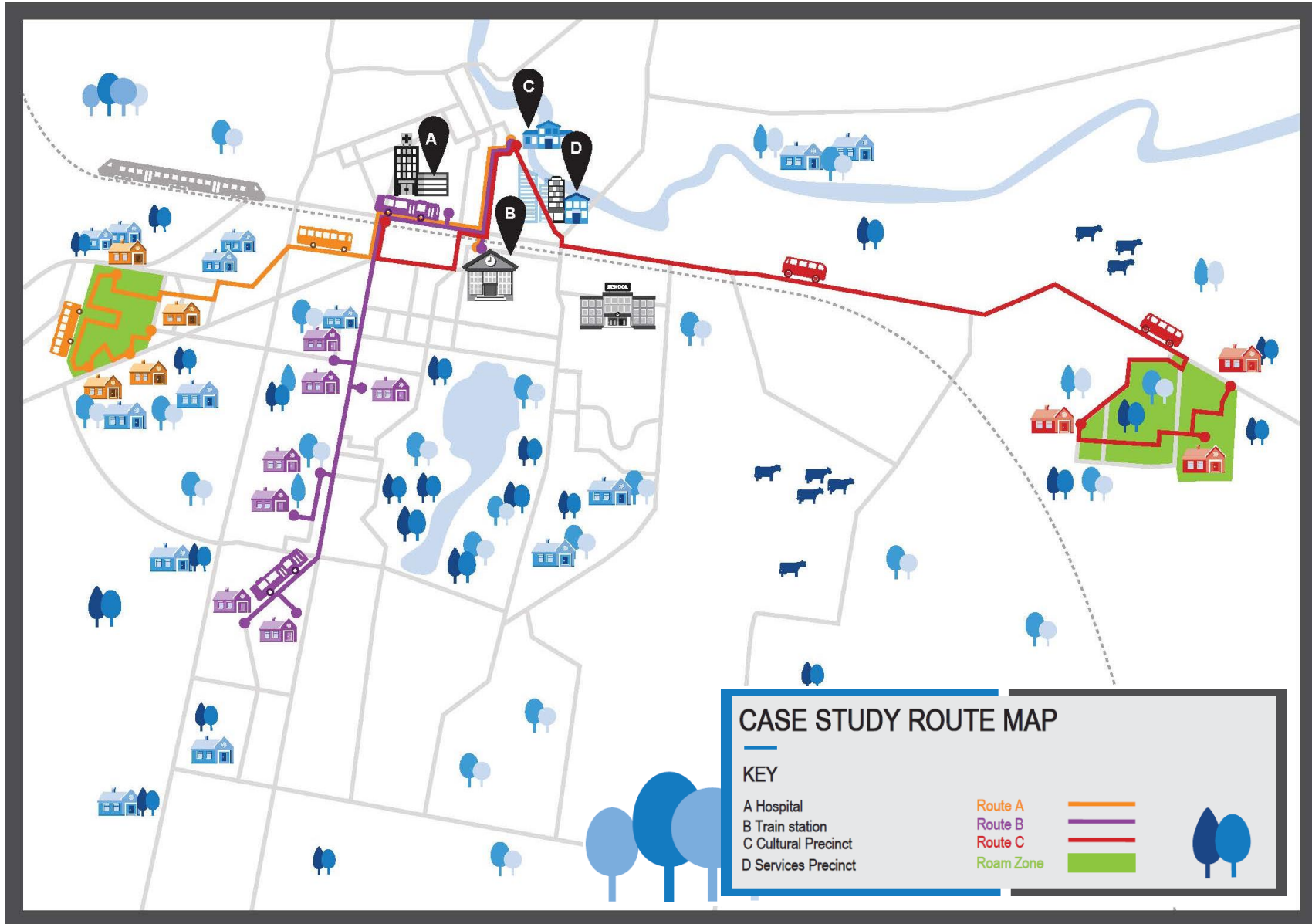
9.1 Overview of the hypothetical regional city and case study services

Our hypothetical regional city has the following characteristics:

- ▼ Population: about 60,000
- ▼ Median total household income: \$60,000
- ▼ Transport services: 20 fixed route bus services, train services with a station in the centre of the regional city, and a regional airport approximately 20km outside town
- ▼ Key employment areas: agriculture, food processing, manufacturing, services, healthcare, education, and public administration.
- ▼ Local services: hospital, combined Centrelink/Medicare office, 20 primary and secondary schools, a university approximately 10km outside town, TAFE in the centre of town, and a central commercial and nightlife district.

Figure 9.1 shows the geography of the regional city and our three case study routes. In all case studies, we located an on demand service component near lower income residents so that the service can provide access to jobs on the other side of the city.

Figure 9.1 Hypothetical city and case study routes



9.2 Case study A: Suburb to centre

This case study is a version of Option 2 discussed in Chapter 7. The service shown in Figure 9.2 includes an on demand roam zone at one end (where it can pick up many booked passengers), and a fixed route with stops at a few key destinations at the other end.

The roam zone is small, and targeted to the needs of a low-income neighbourhood that is not currently serviced by frequent public transport. It is located far from the services in the northern suburbs of the city. The destinations include hospital, train station, services precinct (eg, shops, Centrelink, Medicare office) and cultural precinct (eg, museum, gallery and theatre).

The service may also serve an economic function by delivering casual workers to the services centre where there is a mall, a gym, a tyre and auto centre, and an aquatic centre in close proximity of each other. In reverse, it may also assist casual workers getting home after the 5:30 pm mall close, and especially with late night shopping on Thursdays after the 9 pm close.

Figure 9.2 Case study A: Suburb to centre



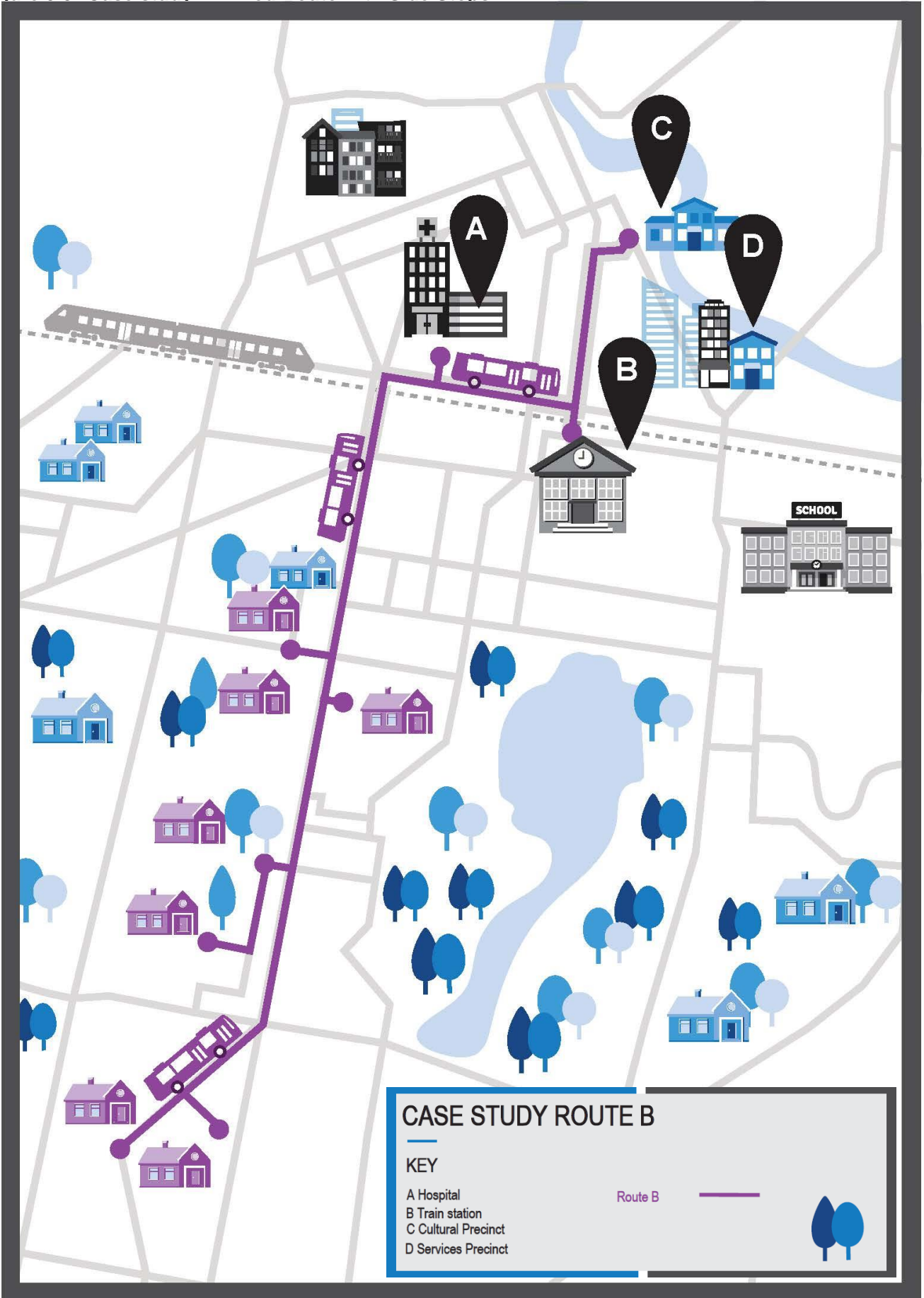
9.3 Case study B: Fixed route with deviations

This route shown in Figure 9.3 is a version of Option 1a or Option 1b discussed in Chapter 7. It duplicates the fixed route bus service, but deviates to pick up and drop off booked passengers at pre-arranged stops off the main route corridor.

The corridor is chosen to enable a tailored pickup and drop off in a low-income suburb with social housing development, and addresses the need to travel northwards for work. Because this route closely mimics the fixed route, the added value of the on demand component in this case may be to address poor route frequency, or to run this service after hours.

The local geography means that there is little difference in terms of additional vehicle km cost between Option 1a (which picks up from a mutually convenient place) and Option 1b (which picks up from the passenger's home). This is because most homes are located not far from the main route corridor. However, the distinction between these two options might be more meaningful in rural settings, where homes are more geographically dispersed.

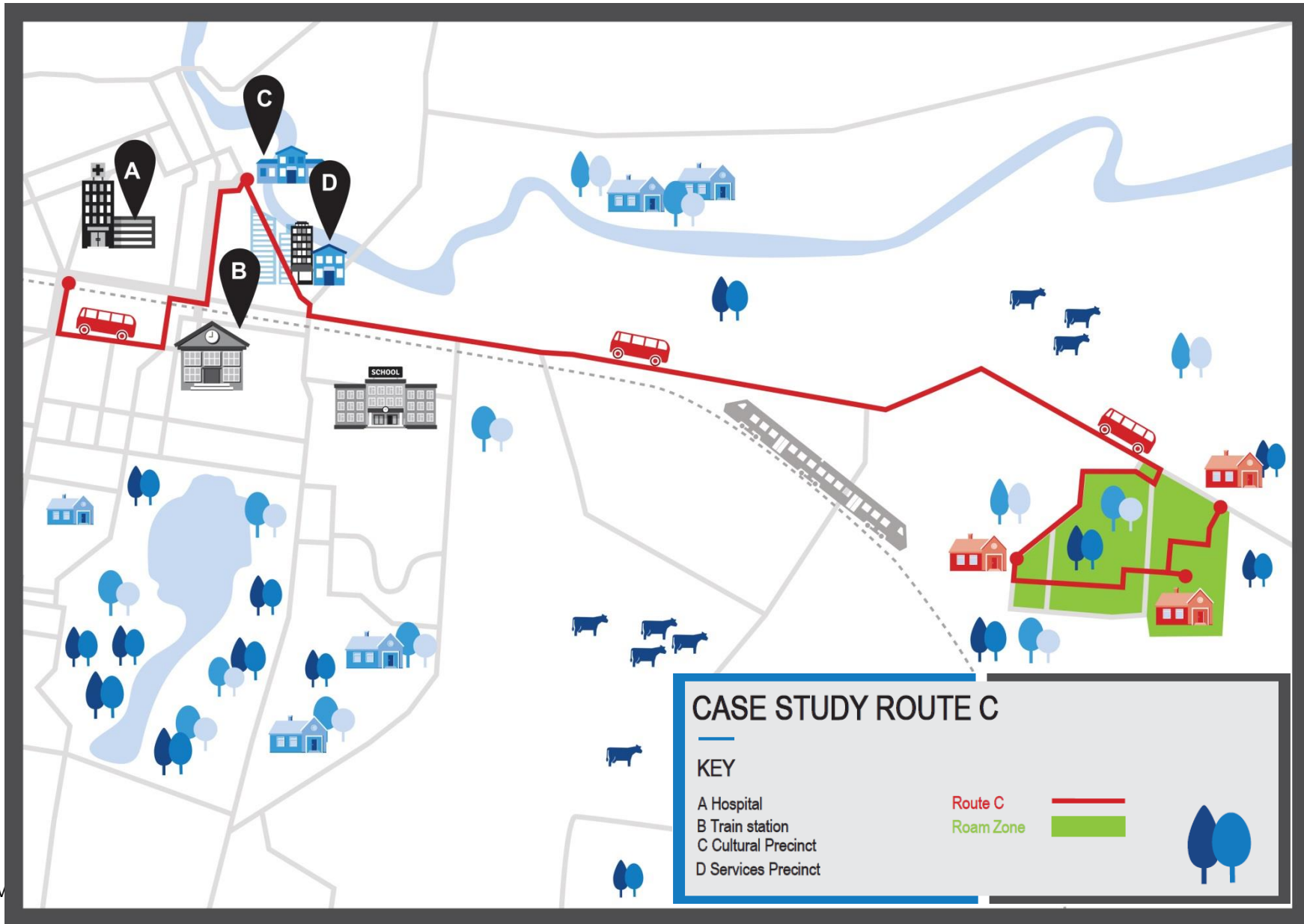
Figure 9.3 Case study B: Fixed Route with Side Stops



9.4 Case study C: Satellite to services

This service shown in Figure 9.4 is another version of Option 2a discussed in Chapter 7, but is specifically designed to function as a service centre and a transport network feeder. The roam zone targets an outlying community and other 'satellite' communities, which are not on the train line and do not have good access to services in their own community. The route picks up at addresses in the suburb, then travels straight into town, passing through an employment precinct and dropping off at the services precinct, train station, and terminates at the hospital.

Figure 9.4 Case study C: Satellite to services



9.5 On demand services costs per passenger journey where there is sufficient patronage response

We used our efficient route cost model (see Chapter 8 and Appendix G) to estimate the cost per passenger journey for each case study service. For each case study, we divided the route into a fixed component and an on demand component and assumed the number of passengers and the length of each component. We also assumed that dead-running made up approximately 30% of the fixed route component. For a full description of our assumptions, see Appendix H.

We modelled all case studies using a 12-seat Toyota Hiace as the service vehicle. We consider a 12-seat vehicle to be appropriate for these routes as it can respond to potential demand spikes in a regional centre, especially as the on demand routes also have fixed route components which would need to accommodate passengers that had not booked the service. However, we consider that in some cases, an 8-seat vehicle may be more appropriate for on demand services operating in more rural or remote areas.

In estimating the costs of providing the case study services, we made conservative assumptions about the vehicle km costs. For example, for the case studies that include a roam zone (Case Study A and C), we assumed a high level of roaming in the zone. That is, we assumed the driver takes the longest possible route through the zone. We took this approach because the exact kilometre distance of the driver's route through the roam zone is uncertain, and it is more useful to estimate an upper bound to the costs. In reality, the actual kilometres travelled will depend on different factors including the number and location of bookings from within the roam zone, and whether or not route optimisation software has been used.

We also assumed the number of booked passengers picked up in the roam zone was relatively low to reflect real patronage data. In particular, in the case studies A and C we did not assume a number of booked passengers consistent with the assumed level of roaming in the zone. This is because we cannot associate a given kilometre of travel in the roam zone with a number of passengers. This is a conservative approach, knowing that bus utilisation is currently a major factor keeping the cost per passenger journey high. Similarly, for Case Study B, we have assumed the minimum number of passengers per deviation from the main route corridor.

Our model uses existing labour cost data for standard bus services. In most rural and regional areas, standard bus services do not operate after hours. We note that the costs of providing on demand services after hours are likely to be higher because of higher labour costs. Further, the model does not account for any marginal costs of booking, dispatch, payment, or other operating systems needed for on demand. As Chapter 7 discussed, we expect these costs to decrease over time.

Lastly, our modelling does not capture the relationship between the flexibility and reliability of the on demand service. Generally, there is a trade-off between flexibility and reliability as highly flexible services add to the journey length and increase uncertainty about the reliability of journey time and this in turn affects the level of patronage. We have assumed that the added journey time and decreased timing reliability have no effect on patronage for the fixed route component of the service.

Table 9.1 shows that each of our three case studies has costs per passenger *within* our recommended surcharge range of \$0 to \$5. If we assume that all booked passengers pay the full fare, and that a moderately sophisticated technology platform can bring the operator's marginal booking and dispatch costs down to zero, then well-designed services may be able to fully recover the additional delivery costs of their on demand component.

If more than the assumed number of passengers used the on demand component, the cost per passenger journey would decrease, while if fewer passengers used it, this cost would increase. We consider that our recommended maximum surcharge provides enough flexibility for operators to develop on demand services and that there is scope for operators to set lower than maximum surcharges to stimulate a patronage response while recovering some costs.

However, we acknowledge that only a small proportion of bus passengers currently pay the full adult fare, and this could affect the level of cost recovery of providing on demand services. Ultimately the level of cost recovery will depend on patronage for the on demand services. This means that on demand services that serve mostly concession passengers would need to attract more passengers to generate sufficient fare revenue to offset additional delivery costs of the on demand component.

Temporal variation is not addressed but is still important for costing

In our cost analysis we have not accounted for possible temporal design features as they will be highly specific to individual bus services and community needs. Some examples of temporal variations for on demand services could include:

- ▼ a service that only runs when it is booked
- ▼ a service that only runs after hours when there are no fixed route bus services, and
- ▼ a service that runs at set intervals during the day (for example, once per hour).

These temporal design features are likely to be important in determining the costs of on demand services and the level of patronage. The temporal design could also influence the dead running required to provide the service.¹⁸⁴ For example, late night services are likely to include more dead running because most people would be collected from the services centre and dropped off in the suburbs. The bus would then have to return to the centre for the next lot of passengers. However, if this service were offered in business hours, (for example, once per hour) then there may be no dead running because the bus would pick up in the suburbs, drive to the centre, but would be able to pick up passengers in the centre before driving back.

By changing the timing of an on demand service it may be possible to reduce the costs per passenger journey of the on demand component. If an operator estimates that the per passenger journey cost of the on demand component equals that of the fixed route component, they could use timing variations as a way to improve patronage and reduce delivery costs.

¹⁸⁴ See Appendix H for further details on how dead running contributes to the costs of providing on demand services.

Table 9.1 Case study costs (ex-GST)

Case Study	Roam Zone Size (sq km)	ROUTE DISTANCE (KM)			NUMBER OF PASSENGERS		COST PER PASSENGER		TAXI FARE ESTIMATE ^a	
		Total	Fixed route	On Demand	Fixed route	On demand	Fixed route	On demand	Taxi for fixed route	Shared taxi for fixed route (per person)
A: Suburb to Centre (Option 2a)	0.86	10.20	5.84	4.36	5	3	\$5.11-\$5.92	\$3.33-\$3.83	\$16.82	\$5.61
B: Fixed Route with deviations (Option 1a or 1b)	NA	9.55	6.53	3.02	2	8	\$12.90-\$14.91	\$1.57-\$1.82	\$18.23	N/A ^b
C: Satellite to Services Feeder (Option 2a)	1.48	16.90	12.80	4.10	4	4	\$9.94-\$11.45	\$2.48-\$2.86	\$31.75	\$7.94

Note: See Appendix H for modelling assumptions.

a We have estimated taxi fares assuming the taxi travels from the edge of the roam zone to the destination (ie, the distance of the fixed route). In the case of a shared taxi, we have assumed that passengers would be collected at one location at the edge of the roam zone and taken to the destination. We note that customer(s) ordering a taxi from within the roam zone would generally pay more but we have used a conservative approach to comparing costs. We have calculated taxi fares using the maximum regulated country taxi fares: a hiring charge of \$4.10, a distance rate of \$2.26/km for the first 12 km and \$3.13/km thereafter, and a booking fee of \$1.20 (including GST). We have assumed: a regular taxi, daytime standard travel, no optional electronic payment surcharge.

b We have not provided a shared taxi fare estimate for Route B because the design of the route makes it unlikely that customers would gather to be picked up from one spot.

Source: IPART analysis.

10 Removing barriers to travel in cross border areas

NSW residents living close to the state's borders with the ACT, Victoria or Queensland often travel to these neighbouring states for work, education or business, or to access services. The NSW Government is committed to collaborating with these states on cross-border travel issues. It has signed Memoranda of Understanding (MOUs) with the ACT and Queensland Governments to ensure local public transport for those living in cross-border regions is seamless. The MOUs identify integrated border bus services, more efficient, flexible transport solutions and improved infrastructure connectivity as priorities.¹⁸⁵

Since the release of our Draft Report, the Government also released its future transport strategy for NSW. This report flags the integration of fares for cross border regions as an initiative for investigation.¹⁸⁶

For this review, we were specifically asked to consider issues related to travel across borders including concession fares and different eligibility criteria for these fares between states. To do this, we sought stakeholder feedback on current barriers to travel across borders in submissions to our Issues Paper and Draft Report, and held discussions with the Cross Border Commissioner, TfNSW and bus operators in border areas. The sections below provide an overview of our findings and recommendations, and then discuss them in more detail.

10.1 Overview of findings and recommendations

We found that the most significant barrier to cross border travel is the current disparity between the fares charged in NSW and those in the bordering states. Other barriers – including misaligned timetables and service frequency, and differences in ticketing systems and eligibility for student travel concessions – are significant in some border areas (Table 10.1).

We consider our decision on maximum fares should be sufficient to address the issue of fare disparities, as they more closely align NSW fares to those in neighbouring states. To address the other main barriers, we are recommending:

- ▼ An on demand service be developed and piloted in the Tweed/Coolangatta area to address issues around service frequency and poor connections at the Tweed interchange.
- ▼ A new or upgraded ticketing system be introduced in the Albury/Wodonga area to facilitate a single ticket for a journey across both the current bus operators' service areas as well as across the border.

¹⁸⁵ NSW Cross Border Commissioner, at http://www.dpc.nsw.gov.au/programs_and_services/office_of_the_nsw_cross_border_commissioner accessed 15 September 2017.

¹⁸⁶ NSW Government, *Draft Regional NSW Services Infrastructure Plan*, pp 40 and 44.

- ▼ Eligibility for travel concessions be extended to NSW residents who attend secondary school, TAFE or other registered training organisations providing vocational education and training (VET) or universities within 50 km of the border providing they are full time, on campus students.

We are also recommending that, in the longer-term and before the expiry of the current contracts in 2024,¹⁸⁷ contracts to provide public transport services in all rural and regional areas be competitively tendered. When tendering for border regions, contracts should ensure that service levels facilitate connectivity to cross border transport services, and address any ticketing issues and necessary fare revenue sharing arrangements.

Table 10.1 Priority issues by border area

Tweed/Coolangatta	Queanbeyan/ACT	Albury/Wodonga
1. Fare disparity	1. Fare disparity	1. Different ticketing systems
2. Infrequent services/poor connections at Tweed interchange	2. Different ticketing systems	2. Circuitous routes
3. Concession eligibility	3. Concession eligibility	3. Concession eligibility
4. Different ticketing systems		

Source: IPART.

10.2 Fares should address fare disparities in cross border areas

We found that disparities between the bus fares charged in NSW and those charged in neighbouring states is the most significant barrier to cross border travel. Our analysis shows that currently, some NSW bus fares are significantly higher than those in neighbouring states (see Appendix I). In addition, stakeholders generally identified fare disparity as the most significant barrier. For example, the Northern NSW Local Health District submitted that consistency in fares for cross border services was important to prevent confusion and make the decision to use public transport easier.¹⁸⁸ BusNSW also considered fares to be the biggest barrier to seamless travel in cross-border areas and noted that in the opinion of Albury/Wodonga operators, fares in the area should be restructured.¹⁸⁹

We consider that addressing fare disparities is a high priority to facilitate improved travel services for border residents. We also consider that our final decision on maximum fares sufficiently addresses this issue, as it better aligns both the level and structure of NSW fares with those in neighbouring states (see Table 10.2).

¹⁸⁷ The contract term is five years from commencement (April – June 2016) with an extension period of three years. For further information see Appendix B.

¹⁸⁸ Northern NSW Local Health District submission to IPART Issues Paper, June 2017, p 3.

¹⁸⁹ BusNSW submission to IPART Issues Paper June 2017, p 7; and submission to Draft Report, November 2017, p 10.

Table 10.2 Comparison of NSW current and final fares with neighbouring states

NSW border area	Typical number of sections	NSW current maximum fare	NSW proposed maximum fare	Neighbouring state fare
Tweed Shire	1-6	\$2.30 - \$6.30	\$2.30 - \$3.40	\$3.20 (1 zone) Queensland
Queanbeyan	11	\$8.80	\$4.90	\$3.06 - \$4.80 (electronic/paper) ACT
Albury	1-6	\$2.30 - \$6.30	\$2.30 - \$3.40	\$2.40 - \$3.20 (1 - 2 zones) Victoria

Source: See IPART, Fact Sheet- Maximum fares for rural and regional buses from 1 January 2017, at <https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/pricing-reviews-compliance-rural-and-regional-bus-fares-for-2017/fact-sheet-maximum-fares-for-rural-and-regional-buses-from-1-january-2017.pdf> and Appendix I for interstate fares in respective border areas.

10.3 On demand booked service should be piloted in the Tweed area

The Cross Border Commissioner noted that service irregularity and poor connections at interchanges was a particular problem at the Tweed Heads interchange.¹⁹⁰ Neither the Commissioner nor other stakeholders identified these issues as being as significant on the ACT and Victorian borders.

The NSW operator on the Tweed/South East Queensland border (Surfside Buslines) currently runs eight routes in the Tweed Shire on a one-hourly basis.¹⁹¹ However, connecting Queensland services run more frequently (every 7 to 30 minutes, depending on time of day).¹⁹² This means that customers travelling from Queensland into NSW face longer waiting periods to connect to services going into the Tweed. Box 10.1 presents a case study of the connectivity and ticketing issues faced by a student travelling from university on the Gold Coast to their home in Pottsville in the Tweed Shire.

TfNSW is currently undertaking service reviews in the Tweed area to identify gaps in customer expectation across all transport modes including train, coach, bus and community transport. We consider that the above issue represents such a gap, and are recommending that TfNSW should work with Surfside Buslines to develop a six-month pilot project to identify whether on demand services are a cost-effective way to address it. In particular, additional services could be booked and provided in peak periods to address unmet demand from people commuting to work or educational institutions across the Queensland border. After six months, TfNSW should evaluate the success of the pilot and its cost effectiveness, and decide whether the current services should continue to be provided as fixed route services or be converted into further on demand services.

¹⁹⁰ Discussion with Cross Border Commissioner, 2 June 2017.

¹⁹¹ For example, see Surfside Buslines Routes 601 and 603 and timetable, at http://www.surfside.com.au/wp-content/uploads/2015/11/SUFSIDE_BUSLINES_ROUTE_NSW_601.pdf, accessed 15 September 2017.

¹⁹² For example, see Translink Route 700 timetable, at <https://jp.translink.com.au/plan-your-journey/timetables/bus/t/700>, accessed 15 September 2017.

Box 10.1 Case study – Travel from Gold Coast to Tweed Shire

Student travel from Southern Cross University, Gold Coast to Pottsville

The nearest university for someone living in the Tweed Shire is the Southern Cross University in the Gold Coast. A public transport journey from the university to Pottsville takes approximately 1 hour 18 minutes (a distance of 34 km by car).

The journey involves:

- ▼ Walking from the university to Bilinga bus stop: A distance of 580 m (about 9 minutes).
- ▼ **Boarding a Surfside (Queensland) bus:** The Route 700 service runs at approximately 7 minute intervals.
- ▼ **Purchasing a paper ticket or using an electronic Go card:** A single adult fare (paper ticket) is \$5.70 or \$3.90 using a *go* card. Half fare concessions are only available to full time university **students residing in Queensland and enrolled at a Queensland institution.**
- ▼ **Alighting at the Tweed Heads interchange to transfer to a Surfside (NSW) bus:** The connecting Route 603 service runs at one-hourly intervals. Waiting time could therefore be up to one hour.
- ▼ **Purchasing a 2nd paper ticket:** The cost of a single adult ticket is currently \$18.50 (half fare concessions are available only to full time students with an **identification card issued by a NSW university.** The distance between Pottsville and Tweed Heads is 32 km (about 17 sections). From 5 March 2018 the maximum adult fare would be \$7.20 and \$3.60 for concessions.
- ▼ Alighting at the appropriate stop at Pottsville.

Source: TransLink, Route 700 timetable, at <https://jp.translink.com.au/plan-your-journey/timetables/bus/t/700>; accessed 13 September 2017; Buslines, Route 603 timetable, at http://www.surfside.com.au/wp-content/uploads/2015/11/SUFSIDE_BUSLINES_ROUTE_NSW_603.pdf, accessed 13 September 2017.

Recommendation

9 TfNSW and Surfside Buslines:

- develop and pilot an on demand booked transport service to provide a higher level of service for travel in peak times (7 am to 9 am and 4 pm to 6.30 pm weekdays) in the Tweed area
- evaluate the cost-effectiveness of this service after six months to decide whether routes continue to be provided as fixed routes or converted into further on demand services.

10.4 New or upgraded ticketing systems should be adopted in the Albury area

Transport hubs or interchanges are fundamental to transport systems both in metropolitan and border areas. For longer journeys, transferring from one bus to another, or to a different mode of transport, may be unavoidable. However, in border areas, this inconvenience can be exacerbated by the need to buy a separate ticket on a different ticketing system.

To address this issue, we considered whether TfNSW should require all border operators to adopt ticketing technology that provides travel under one ticket across borders. Under the current contracts, TfNSW may introduce new systems and equipment on contracted buses and reimburse operators for any costs they incur.¹⁹³

In the Albury area, we found there is a strong case for a new ticketing system as the benefits to customers would be high, and the costs minimal. This is because currently, two bus operators provide bus services in the area – Martins and Dysons, either side of the Dean Street interchange, with Dysons also operating services in Wodonga. Customers need to purchase a second ticket when travelling across both operators’ service areas. Additionally, bus routes do not currently provide direct access across Albury.

Both Martins and Dysons already have (paper) ticketing systems installed, which may only need minor changes to allow them to issue a single ticket for travel across both operators’ areas, including across the border to Wodonga.

As our Draft Report discussed, in the Tweed and Queanbeyan areas there are existing fare products to reduce the inconvenience from different ticketing systems in the neighbouring state. The NSW bus operator in each area offers weekly tickets and electronic tickets are available for travel across the border. Most regular commuters would use these products as they are more convenient.¹⁹⁴ The operator in Queanbeyan (QCity Transit) also provides a direct service to many key destinations in Canberra, such as Civic, Woden, the Canberra Hospital and Brindabella Business Park. Only a limited number of regular commuters would continue their journey beyond these destinations. We consider that the benefits to customers of adopting new ticketing are therefore not likely to outweigh the costs to Governments and bus operators in the Tweed and Queanbeyan areas.

While most respondents to our Draft Report supported our recommendation on an updated ticketing system in Albury,¹⁹⁵ one Individual (Anonymous) considered ticketing systems should also be integrated on the NSW/ACT border.¹⁹⁶ It argued that there is little scope for using our proposed daily ticket around the ACT on journeys undertaken wholly within the Canberra area. We acknowledge that Queanbeyan passengers would not benefit from daily ticket discounts if travelling wholly within Canberra. However, noting that the benefits of a daily ticket would not apply to these passengers, we maintain that the benefits of new ticketing systems would not outweigh the costs in either the Queanbeyan or Tweed areas due to the availability of electronic ticketing across the border.

For the Albury/Wodonga area, we are recommending that TfNSW require the Albury operators to facilitate this ticketing upgrade, and to collaborate with Public Transport Victoria on appropriate revenue sharing arrangements.

Recommendation

10 TfNSW require operators in the Albury/Wodonga area to adopt ticketing systems that:

¹⁹³ See Appendix B for more information on bus contracts.

¹⁹⁴ While our final package of fares does not include a weekly ticket, it does not prevent NSW operators from offering these products.

¹⁹⁵ For example, see Border Rail Action Group submission to IPART Draft Report, November 2017, p 1; The NRMA submission to IPART Draft Report, November 2017, p 3; BusNSW submission to IPART Draft Report, November 2017, p 10.

¹⁹⁶ Anonymous submission to IPART Draft Report, November 2017, p 6.

- allow passengers to purchase a single ticket for their entire journey across both operators' service areas including across the border, and
- facilitate sharing of fare revenue between each operator and Public Transport Victoria.

10.5 Concession eligibility should be extended to NSW residents attending secondary school, TAFE, VET or university within 50 km of the border

The categories of people eligible for free or concessionary travel are generally similar across state jurisdictions. For example, all states:

- ▼ provide free travel for young children, children travelling to and from school under School Student Transport Scheme (SSTS) arrangements, people with certain disabilities, war veterans and widows/ers
- ▼ provide half fare concessions for primary, secondary, tertiary students, jobseekers and pensioners
- ▼ recognise Commonwealth Government-issued concession cards for eligibility for concessionary travel (see Appendix J for more detail).

However, most states do not extend travel concessions to students residing in another state, or resident students enrolled at educational institutions in another state. In particular, NSW residents enrolled in a secondary or tertiary institution in Queensland are not eligible for travel concession in either state. The same is true for Queensland residents enrolled in secondary or tertiary institutions in NSW.

In contrast, the ACT recognises eligibility for interstate residents. For example in the ACT, all Australian school students and interstate seniors card holders are eligible for concessions¹⁹⁷ (albeit ACT seniors over the age of 70 travel free). We also understand that some operators on the Victorian border may have made informal arrangements to recognise some interstate concessions cards.

BusNSW and the NRMA submitted that there should be mutual recognition of concession cards and a standardised concessionary system across all state borders.¹⁹⁸ We consider that at the very least, NSW residents that are full time, on-campus students at secondary and tertiary educational institutions across a border, should have access to similar travel concessions as their counterparts attending NSW educational institutions. However, we have limited our recommendation to include only those educational institutions located within 50 km of the border to ensure we only capture border residents that may have no other choice than to travel to attend an educational institution in a border state.

The current process for validating enrolments may impose additional administrative burdens on out of state institutions. TfNSW would need to negotiate arrangements to facilitate this process. In the long term, TfNSW should also consider a mutual recognition of travel concessions for interstate students that attend NSW educational institutions near state borders.

¹⁹⁷ Transport Canberra, *Concessions*, at <https://www.transport.act.gov.au/myway-and-fares/mywayguide/concessions#cards>, accessed 15 September 2017.

¹⁹⁸ BusNSW submission to IPART Issues Paper, June 2017, p 7; and NRMA submission to IPART Draft Report, November 2017, p 4.

Recommendations

- 11 TfNSW extend concessions to NSW residents attending secondary school, TAFE, VET or university located within 50 km of the border as full time, on-campus students.
- 12 TfNSW reimburse the Queensland Government, Victorian Government, ACT Government or relevant bus operator for the difference between the concession fare and the single adult fare for those NSW residents travelling on a concession ticket attending secondary school, TAFE, VET or university located within 50 km of the NSW/Queensland, NSW/Victoria and NSW/ACT borders as full time on-campus students.
- 13 TfNSW negotiate with the relevant secondary school, TAFE, VET or university in Queensland, NSW and ACT to facilitate the processing of student travel concession applications.

10.6 In the long-term, services should be procured through competitive tendering

We consider that TfNSW should competitively tender to appoint transport operators to provide services when the current contracts expire in 2024. In tendering for services across rural and regional NSW, the following cross border matters could be included in an invitation to tender:

- ▼ alignment of service levels to facilitate connectivity between NSW and border transport links
- ▼ introduction of a seamless ticketing system across a border region, and
- ▼ revenue (fare box) sharing arrangements between governments and bus operators.

Recommendation

- 14 When seeking proposals from the market in cross border regions from 2024, TfNSW should ensure that:
 - service levels meet the need for connectivity to transport links across borders
 - tickets cover travel across borders, and
 - administrative arrangements facilitate sharing fare revenue with state jurisdictions.

11 Concession eligibility and fares

The Government currently provides free and concession fares for students, economically disadvantaged, older people and ex-members of defence forces travelling on rural and regional bus services, including:¹⁹⁹

- ▼ free travel for young children, students travelling to and from school (under SSTS arrangements), profoundly disabled people, WW1 widows/ers.²⁰⁰
- ▼ half fare concessions for primary, secondary, tertiary students and apprentices/trainees, jobseekers, pensioners,²⁰¹ seniors and NSW and Victorian War widow/ers, and
- ▼ unlimited daily travel for a fixed \$2.50 fare in rural and regional areas for pensioners, NSW & Victorian War Widow/ers and NSW seniors on the RED ticket.

Concession fares usually serve social policy objectives and are a matter for the Government, and so fall outside the scope of IPART's fare reviews. However, for this review, we have been asked to consider eligibility for concession fares in NSW and the level of subsidy provided by the NSW Government (excluding free travel under the SSTS arrangements).

The sections below provide an overview of our findings and recommendations then discuss these in more detail.

11.1 Overview of findings and recommendations

We found that the current eligibility criteria and subsidy levels for free and half fare travel are appropriate and should be maintained. The same groups of people are eligible for these concessions when travelling on rural and regional buses and the Opal network. Generally, these groups are consistent with those in other states (see Appendix J). The provision of concession fares to those with very low incomes is standard practice in transport fare schemes.

We found that the price of the RED ticket has remained fixed at \$2.50 since 2005, similar to the Gold Opal. We consider the RED ticket price should be adjusted in line with CPI to maintain price relativities with other fares over time. Our decision means that the price of the RED ticket would be adjusted by 10 cents in each year of the determination period.

¹⁹⁹ See TfNSW, *Rural and Regional Bus Service Contract (Large)* at <https://www.transport.nsw.gov.au/sites/default/files/media/documents/2017/draft-rrbsc-large-271115.pdf>, Schedule 7, pp 158-164; accessed 4 September 2017.

²⁰⁰ Australian & New Zealand war veterans with service related disabilities in receipt of a pension from the Department of Veterans Affairs are also eligible for free travel.

²⁰¹ That is, holders of Commonwealth Pension Concession Cards issued by Centrelink. This may therefore include some young people. See for example, <https://www.humanservices.gov.au/individuals/subjects/concession-and-health-care-cards#a1>, accessed 3 October.

11.2 Eligibility for RED ticket

The RED ticket in rural and regional areas (like the Gold Opal in metropolitan areas) provides further direct subsidies to certain customer groups (Box 11.1). In our review of Opal fares, we found that the eligibility criteria for the Gold Opal are fairly broad.²⁰² We consider that some eligible customer groups – specifically NSW Seniors Card holders – are not necessarily more economically disadvantaged than those eligible for half fare concessions, including full time tertiary students and jobseekers. This is because access to a NSW Seniors Card is not means tested but open to all NSW residents aged 60 or more and averaging 20 or less hours of paid work a week in a 12 month period.²⁰³

Box 11.1 Eligibility criteria for RED ticket

The RED ticket provides unlimited daily travel on rural and regional public transport for a fixed price of \$2.50. Customer groups that are eligible for a RED ticket include:

- ▼ Holders of the Pensioner Concession Card (NSW, Victoria, ACT and other States & Territories) issued by Centrelink, the Department of Veterans Affairs and other States and Territories.
- ▼ Holders of the NSW & Victorian War Widow/ers Card issued by Department of Veterans Affairs.
- ▼ Holders of the NSW Seniors Card issued by NSW Department of Human Services (all NSW residents aged 60 or over averaging 20 hours or less paid work a week in a 12 month period are eligible for a Seniors Card).

Source: TfNSW, *Rural and Regional Bus Service Contract (Large)* at <https://www.transport.nsw.gov.au/sites/default/files/media/documents/2017/draft-rrbsc-large-271115.pdf>, Schedule 7, pp 158-164 accessed 4 September 2017; Service NSW, *Apply for a NSW Seniors Card*, at <https://www.service.nsw.gov.au/transaction/apply-nsw-seniors-card> accessed 30 November 2017.

Most stakeholders considered that the current concession arrangements should be maintained as the RED ticket is valued by pensioners and seniors and it is a large drawcard for users of public transport.²⁰⁴ Some stakeholders argued that the RED ticket should be extended to other low income groups eg, those who are too young to hold a drivers' licence, students and other welfare recipients.²⁰⁵

In our view, our decision to simplify the fare structure and introduce a daily ticket addresses many of the affordability concerns raised by stakeholders. For example, the maximum adult fare for journeys of less than 2 sections (or approximately 3.2 km) is \$2.30, or \$1.15 with a half fare concession.

²⁰² IPART, *More efficient, more integrated Opal fares*, Final Report, May 2016, p 76.

²⁰³ <https://transportnsw.info/tickets-opal/ticket-eligibility-concessions/seniors>, accessed 15 September 2017.

²⁰⁴ See Northern NSW Local Health District submission to IPART Issues Paper, June 2017; Northern Rivers Social Development Council submission to IPART Issues Paper, June 2017, p 6.

²⁰⁵ See Northern Rivers Social Development Council submission to IPART Issues Paper, June 2017, p 6; Byron Shire Council submission to IPART Issues Paper, June 2017, p 7.

11.3 RED ticket prices should be adjusted in line with CPI

The price of the RED ticket has remained fixed at \$2.50 since 2005, similar to the Gold Opal.²⁰⁶ However, all pensions and other Government income support payments are regularly adjusted with cost of living changes. For example, most pensions are indexed twice each year.²⁰⁷ Over the last five years, adult fares for rural and regional buses have increased by an average of 1.4% each year.²⁰⁸

We found that over the period from 2005 to 2016:

- ▼ the general level of prices (measured by the CPI) has risen by 34%²⁰⁹
- ▼ pensions have increased by 76% over this period.²¹⁰

This means that the discount provided to seniors and pensioners has become relatively more generous compared to discounts available to other concession customers who may be more economically disadvantaged.

As noted in our Draft Report we consider that the price of the RED ticket should be adjusted to maintain price relativities with other fares over time. In our Draft Report we recommended that for simplicity and consistency this adjustment should be made using CPI.

Two stakeholders supported an adjustment of the RED ticket price to maintain price relativities.²¹¹ For example, BusNSW noted that “the RED ticket price should be updated and increased in line with other fare products to ensure that cost recovery is not eroded over time”.

However, the Combined Pensioners and Superannuants Association (CPSA) opposed a price increase stating that the RED ticket price should be set at parity with the Gold Opal and frozen at \$2.50.²¹²

For the reasons discussed above we continue to consider that the price of the RED ticket should be adjusted using CPI. We also consider that the price for the Gold Opal could also be adjusted by CPI.

Therefore, we are recommending the RED ticket be adjusted by 10 cents in each year of the determination period as indicated in Table 11.1.

²⁰⁶ IPART, *Review of rural and regional bus fares from January 2018*, Issues Paper, May 2017, p 24.

²⁰⁷ Pensions are indexed by the greater of the movement of CPI or the Pensioner and Beneficiary Living Cost Index (PBLCI) and benchmarked against a percentage of Male Total Average Weekly Earnings (MTAWE). Other income support payments are indexed in line with movements in the CPI. <https://www.dss.gov.au/our-responsibilities/seniors/benefits-payments/pension-rates>, accessed 3 October 2017.

²⁰⁸ IPART, *Review of rural and regional bus fares from January 2018*, Issues Paper, May 2017, p 24.

²⁰⁹ ABS Consumer Price Index 6401.0 and IPART calculations.

²¹⁰ Department of Social Security, see <http://guides.dss.gov.au/guide-social-security-law/5/2/2/10>, accessed 15 September 2017 and IPART calculations.

²¹¹ Anonymous submission to IPART Draft Report, November 2017, p 7; BusNSW submission to IPART Draft Report, November 2017, p 12.

²¹² Combined Pensioners & Superannuants Association of NSW submission to IPART Draft Report, November 2017, p 5.

Recommendation

15 TfNSW adjust the price of the RED ticket as indicated in Table 11.1.

Table 11.1 Recommendation on adjustment to RED ticket prices

Determination year	RED Ticket price
2018	\$2.50
2019	\$2.60
2020	\$2.70

11.3.1 Some consider the \$2.50 cap should apply across the RED and Gold Opal in Opal enabled areas

Some stakeholders raised concerns that pensioners and seniors living in areas where they have access to Opal enabled railway stations as well as rural and regional buses have to pay up to \$5.00 for travel on public transport.²¹³ For example, the CPSA noted that a pensioner travelling by public bus from their house in Lithgow to the train station is charged \$2.50 for a RED ticket and charged up to \$2.50 on the Gold Opal once they get on the train (enroute to Sydney).

In our Draft Report we noted the discount currently provided to pensioners and seniors under the RED ticket is already more generous than discounts available to other concession customers. The intent of the RED ticket is to facilitate access to local services in their local communities for eligible customers.²¹⁴

In addition, eligible pensioners and seniors can access generous train discounts through the Country Pensioner Excursion ticket (CPE).²¹⁵ The \$2.50 CPE fare enables access to train journeys across regional NSW and the ACT including return journeys. However, similar to the RED ticket, the CPE cannot currently be used for travel on the Opal network.

The Gold Opal is a separate product to allow travel for eligible pensioners and seniors within the Opal/greater metropolitan network. The \$2.50 capped fare allows unlimited access to transport services (trains, buses, ferries and light rail) within Sydney, Newcastle and Wollongong.

If the \$2.50 cap applied across the RED and Opal networks, this would enable discretionary travel for eligible customers from one end of NSW to the other for \$2.50 instead of the current \$5.00. We consider a \$5.00 fare is reasonable.

²¹³ See Combined Pensioners Superannuants Association submission to IPART Issues Paper, June 2017, p 4; P Kerr submission to IPART Issues Paper, July 2017, p 7; BusNSW submission to IPART Issues Paper, June 2017, p 6; Anonymous submission to IPART Draft Report, November 2017, p 10.

²¹⁴ TfNSW, *Regional Excursion Daily (RED)*, at <https://transportnsw.info/tickets-opal/regional-tickets-fares/regional-excursion-daily-red>

²¹⁵ TfNSW, *Country Pensioner Excursion ticket (CPE)*, at <https://transportnsw.info/tickets-opal/regional-tickets-fares/country-pensioner-excursion-ticket-cpe>, accessed 6 September 2017.

We considered whether other jurisdictions provide discounts for pensioners and seniors similar to the RED or Gold Opal ticket. We found no direct equivalent to these tickets. Other jurisdictions offer the following concessions:²¹⁶

- ▼ Victoria - 50% discount on full fare (with free travel Saturdays and Sundays in two consecutive zones). Limited free travel vouchers/concessions on trains and coaches are also available.
- ▼ Queensland - 50% discount on first two full fares with free travel for the rest of the day.
- ▼ ACT - seniors over 70 and eligible concession card holders travel free off-peak.
- ▼ Western Australia - discounts of up to 60% in metropolitan and up to 50% in some regional areas.


The current discounts provided to NSW pensioners and seniors under the RED/CPE tickets and Gold Opal arrangements are more generous than discounts available to other concession customers who may be more economically disadvantaged.

We note that since the release of our Draft Report, the Government has announced a trial in Lithgow to waive the bus fare of pensioners connecting to a train service at Lithgow Train Station if they show their Gold Opal card when getting on board. Pending the outcome of the trial similar arrangements may be rolled out in other regional areas.²¹⁷

²¹⁶ Public Transport Victoria, *Regional fares*, at <https://www.ptv.vic.gov.au/tickets/fares/regional/fares/>; TransLink, *One, Two Free for seniors and pensioners* at <https://translink.com.au/tickets-and-fares/fares-and-zones/discounts-and-ways-to-save/one-two-free>; ACT Government, *Concessions*, at <http://www.transport.act.gov.au/myway-and-fares/mywayguide/concessions>; Government of Western Australia, *Concessions WA, Public Transport – Fares* at <http://www.concessions.wa.gov.au/concessions/Pages/Public-Transport-Fares.aspx> accessed 6 September 2017.

²¹⁷ Lithgow Mercury, *Lithgow pensioners get their \$2.50 golden ticket back for transport services*, Nov 20 2017, at <http://www.lithgowmercury.com.au/story/5067027/lithgow-pensioners-get-their-250-golden-ticket-back-for-transport/> accessed 21 November 2017.

A Referral



Passenger Transport Act 2014
Section 123(1)(a)

Referral

I, the Hon Andrew Constance MP, Minister for Transport and Infrastructure, with the approval of the Hon Gladys Berejiklian MP, Premier of New South Wales and Minister administering the *Independent Pricing and Regulatory Tribunal Act 1992*, under section 123(1)(a) of the *Passenger Transport Act 2014*, refer to the Independent Pricing and Regulatory Tribunal (IPART) the following matter for investigation and report:

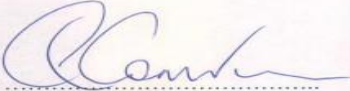
Appropriate maximum fares for rural and regional bus services.

In addition to the matters contained in section 124 of the *Passenger Transport Act 2014*, the following matters are referred to IPART, under section 123(2)(b) of the *Passenger Transport Act 2014*, for consideration in undertaking this investigation:


- The equity of current fares compared to Sydney metropolitan bus fares.
- Benefits and costs from simplifying the current fare structure.
- Issues related to travel across borders, including concession fares and different eligibility criteria between states.
- The development of on demand services in regional areas.
- Issues related to eligibility of concession fares in NSW and the level of subsidy provided by the NSW Government.
- Customers' willingness and capacity to pay given demographics and current service quality in regional NSW

IPART is to publish a draft report as soon as practicable but no later than 15 September 2017.

IPART is to submit its final report and determination under this referral to the Minister for Transport and Infrastructure as soon as practicable but no later than 15 December 2017, or such later date as notified in writing by the Minister for Transport and Infrastructure.

Signed: 
Hon Andrew Constance MP
Minister for Transport and Infrastructure

Date: 2/2/17

Signed: 
Hon Gladys Berejiklian MP
Premier of NSW

Date: 20/2/2017

B Comparison of old and new contracting system

In April 2016, new size-based contracts were entered into between TfNSW and existing bus operators. Under the new contract system, the contract categories are defined by the number of buses contracted per operator, as shown in Table B.1. In total, there are 656 contracts with 576 bus operators. Of a total of 656 contracts, there are seven Large contracts, and 33 Medium contracts. There are 83 Small contracts and 533 Very Small contracts.

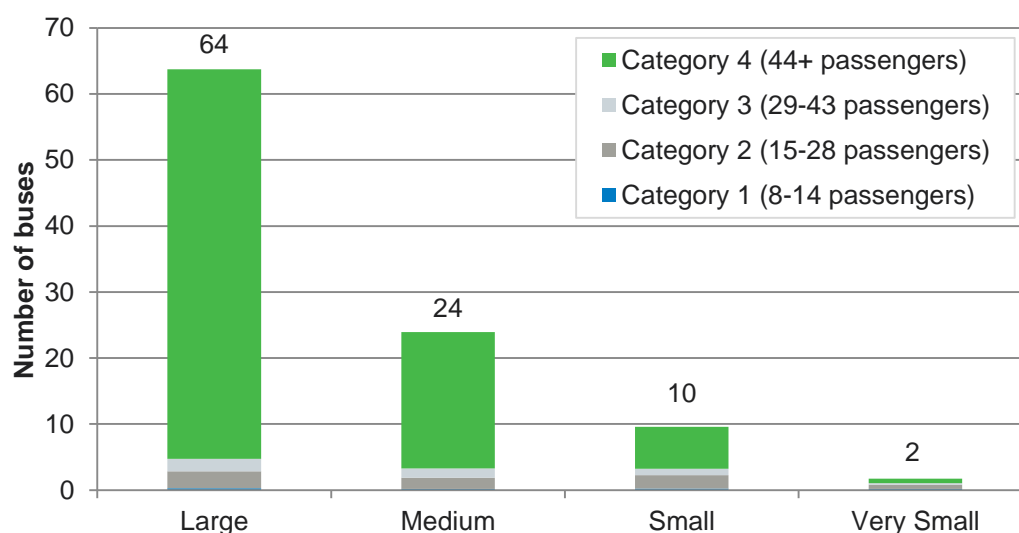
Table B.1 Size-based contract category

Contract type	Number of buses	Number of contracts
Large	More than 40 buses in the contracted fleet of an operator	7
Medium	16 to 40 buses	33
Small	6 to 15 buses	83
Very Small	5 or less	533
Total		656

Source: TfNSW.

Figure B.1 shows the average number of buses per contract. Medium and Large contracts have mostly Category 4 buses, which has authorised adult seating capacity of over 44 passengers. Small and Very Small contracts have a mix of Category 1 to Category 4 buses.

Figure B.1 Average number of buses by contract type



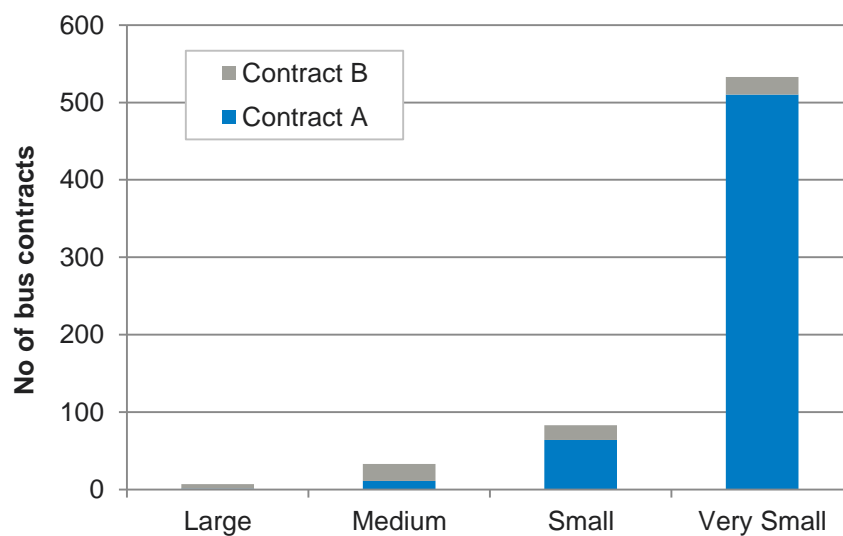
Data source: TfNSW

Prior to the current size-based contract system, there were two types of contracts for rural and regional bus services:

- ▼ **Contract A** which was for the provision of dedicated school bus services, and
- ▼ **Contract B** which was for the provision of regular passenger services to fare-paying passengers. Operators on this contract could also provide dedicated school services, and carry school students on regular passenger services without charging them fares.

Figure B.2 shows the total number of bus contracts by contract size, and their categories under the old contract system. Most Large and Medium contracts were previously classified as Contract B, which was for the provision of regular passenger and dedicated school services. Small and Very Small contracts, accounting for about 94% of the total bus contracts, mainly provided school bus services under Contract A.

Figure B.2 Number of bus contracts under the old and new contract systems



Data source: TfNSW.

Key changes from the old to new contracting system are summarised in Table B.2.

Table B.2 Comparison of old and new contracts

Contract terms	Old contracting system (Contract B)	New contracting system
Tenure (years)	<ul style="list-style-type: none"> ▼ 7 years 	<ul style="list-style-type: none"> ▼ Initial term of 5 years with a possible extension of 3 years subject to meeting Key Performance Indicators (KPIs).
Performance based contract	<ul style="list-style-type: none"> ▼ Contracts were not based on performance. 	<ul style="list-style-type: none"> ▼ Yes. New contracts include reporting on KPIs, which vary by contract type. ▼ For Large and Medium contracts, the contract price may be adjusted where KPIs are not met.
Service design approval	<ul style="list-style-type: none"> ▼ Bus operators were responsible for service design. 	<ul style="list-style-type: none"> ▼ TfNSW is responsible for approving services and service changes.
Exclusivity of contract	<ul style="list-style-type: none"> ▼ Contracts provided operators with an exclusive right to provide bus services for journeys below 40km. 	<ul style="list-style-type: none"> ▼ No exclusive right. TfNSW can now contract with one or more service providers.
Payment model	<ul style="list-style-type: none"> ▼ Contract payment was based on the number of students registered under the School Student Transport Scheme (SSTS), plus top-ups. ▼ Contract payment included an additional payment for change in patronage, and payments for half fare and other concession passengers, which increased when maximum fares determined by IPART increased. ▼ Operators retain any fare box revenue collected. 	<ul style="list-style-type: none"> ▼ Contract payment is an agreed fee for service subject to service charges and indexation. ▼ Contract payment is fixed subject to adjustments or service changes and indexation. ▼ Operators retain any fare box revenue collected. ▼ If TfNSW changes fares and the change results in a material change in the fare revenue received by the operator, TfNSW and the operator will agree an adjustment to the annual contract price to reflect the impact of the change in the annual fare revenue.
Fleet funding	<ul style="list-style-type: none"> ▼ Funded by operators 	<ul style="list-style-type: none"> ▼ TfNSW funds all new buses. ▼ New Category 1 and Category 2 buses are sourced from the NSW Government Pre-Qualification Scheme. ▼ New Category 3 and Category 4 buses are purchased through TfNSW's Bus Procurement Panel.
Responsibility for SSTS administration	<ul style="list-style-type: none"> ▼ Bus operator was responsible for administering SSTS. 	<ul style="list-style-type: none"> ▼ TfNSW is responsible for administering SSTS. This reduces SSTS administration costs for bus operators.
Reporting requirements	<ul style="list-style-type: none"> ▼ Operators were required to provide a summary of costs for the operation of their bus contracts. ▼ Operators were required to report their performance in areas such as reliability, patronage, performance against specified KPIs, complaints, complaint handling processes and service disruptions. ▼ Reporting is not audited. 	<ul style="list-style-type: none"> ▼ Operators are required to provide operational, performance and commercial reports. ▼ The frequency and type of reporting depend on the contract. <ul style="list-style-type: none"> – Large: Quarterly – Medium: Half-yearly – Small and Very Small: Yearly ▼ Reporting is not audited.

Source: Transport for NSW, *Rural and Regional Bus Contracts: Presentation to R&R Operators*, July 2014; Rural and Regional Bus Service Contracts templates available at <https://www.transport.nsw.gov.au/operations/buses-and-coaches> accessed 12 December 2017, IPART, *Rural and regional bus fares from January 2013 – Final report*, December 2012, p 3; pp 4-10, 18, 39.

C Factors we are required to consider

	Chapter
Factors from the legislation (<i>Passenger Transport Act 2014, s 124(3)</i>)	
The cost of providing the services	2,3,6
The need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers	6-9
The protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service	3
The impact of the determination or recommendation on the use of the public passenger transport network and the need to increase the proportion of travel undertaken by sustainable modes such as public transport	3,4,5
The social impact of the determination or recommendation	3,4,5
Standards of quality, reliability and safety of the services (whether those standards are specified by legislation, agreement or otherwise)	2
The effect of the determination or recommendation on the level of Government funding	6
Factors from the Minister's terms of reference	
The equity of current rural and regional bus fares compared to Sydney metropolitan bus fares	4
The benefits and costs of simplifying the current fare structure	4
Issues related to travel across borders, including concession fares and different eligibility criteria between states	10, 11
The development of on demand services in regional areas	7-9
Issues related to eligibility of concession fares in NSW and the level of subsidy provided by the NSW Government	11
Customers' willingness and capacity to pay given demographics and current service quality in regional NSW.	4

D Congestion in rural and regional areas

To consider the congestion benefits of bus services, we modelled the extent of congestion in regional areas by extracting real-time trip time estimates from Google Maps. We found that congestion in regional towns is minimal.

We collected data on trip times for the five largest regional towns that form part of this review (Coffs Harbour, Port Macquarie, Tamworth, Tweed Heads and Wagga Wagga). These towns had estimated populations of between 40,000 and 70,000 in 2016.

The sections below explain our approach and results in more detail.

D.1 Approach to estimating congestion

To model the extent of congestion, we extracted data on travel times for different points within a city throughout a given day. We then assumed that congestion reflects an increase in travel times during 'peak' periods compared to a baseline where we expect no congestion on the road network.

To obtain estimates of travel times, we:

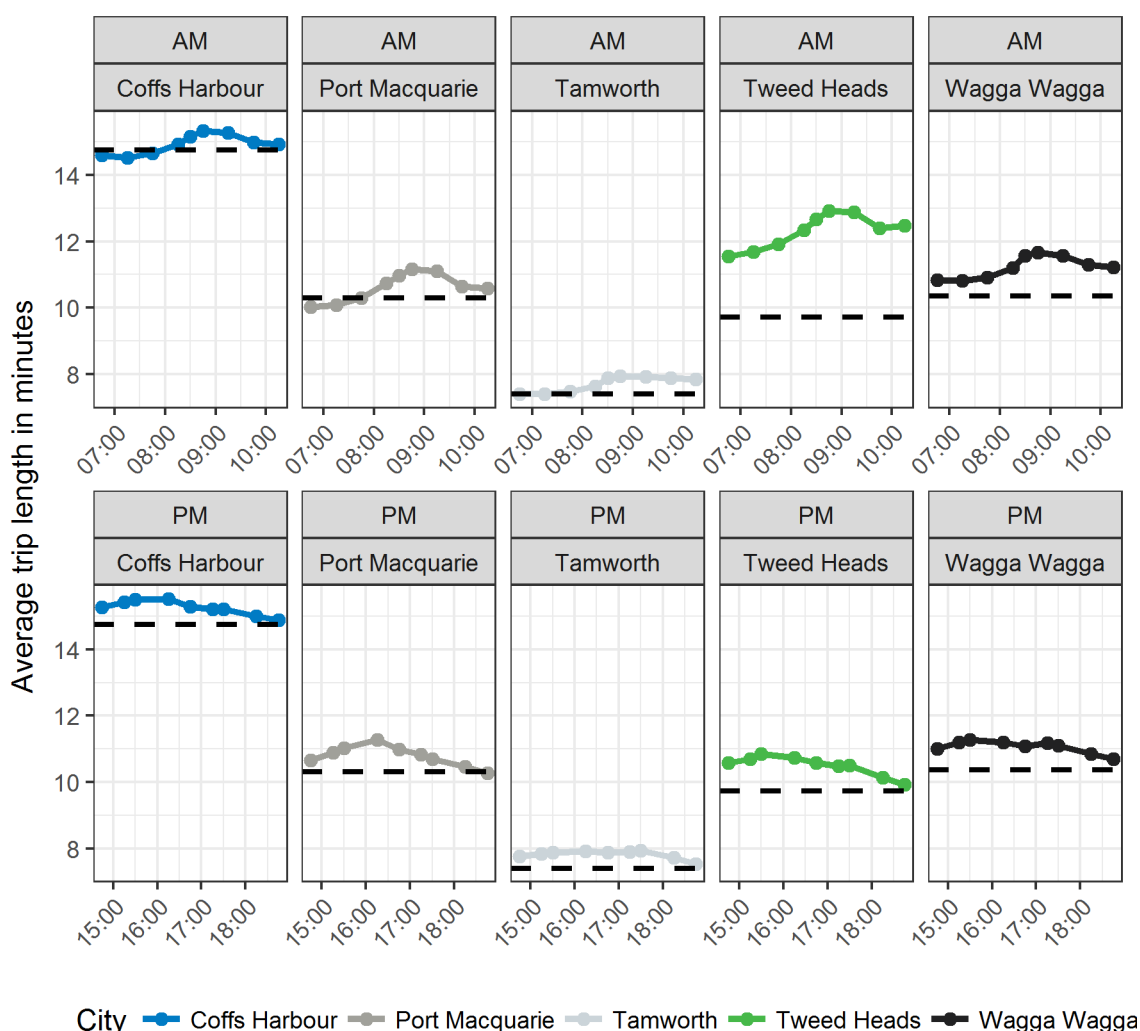
1. Used ABS data to determine the boundaries of the five regional towns. Specifically, we used 'Statistical Area Level 3' data that reflect the area serviced by regional cities with a population over 20,000 people.
2. Decided what routes within the city to collect data on trip times (in other words, where people travel from, and where they travel to, each day):
 - First, the ABS divides each regional town into smaller areas with 200-800 persons, on average ('Statistical Area 1', or SA1). We used the centre of each SA1 as the origin of where people travel from.
 - Second, we selected the destination where people would travel to. As a first exercise, we used the centre of the CBD, which for most towns is the address of the largest shopping centre of the city. We will continue to fine tune the routes that we collect data on. We also modelled the change in travel times to other major employment centres (eg, universities, schools and hospitals) and known traffic bottlenecks within these towns.
 - Third, we modelled a scenario where people travel from each SA1 to the centre of town during the morning peak, and from the centre of town back to the SA1 during the afternoon peak period.
3. Selected the times throughout the day to collect real-time data on travel times. We collected data at 27 times throughout the day:
 - 13 times throughout the morning peak period between 6:00am and 10:00am
 - 13 times during the afternoon peak period, between 2:30pm and 6:30pm, and
 - at 1am in the morning, to form the 'no congestion' baseline.

D.2 Our findings on congestion in rural and regional areas

Figure 1 shows that the increase in travel times during the period 26 July - 4 August. It suggests minimal increase in travel times and congestion during these periods. Other factors unrelated to congestion can affect travel times, including:

- ▼ speed limit reductions in school zones (which may increase travel times during peak periods), and
- ▼ road works (which might increase travel times more during off-peak times than peak periods).

Figure D.1 Average trip times by city and day of week (weekdays only)

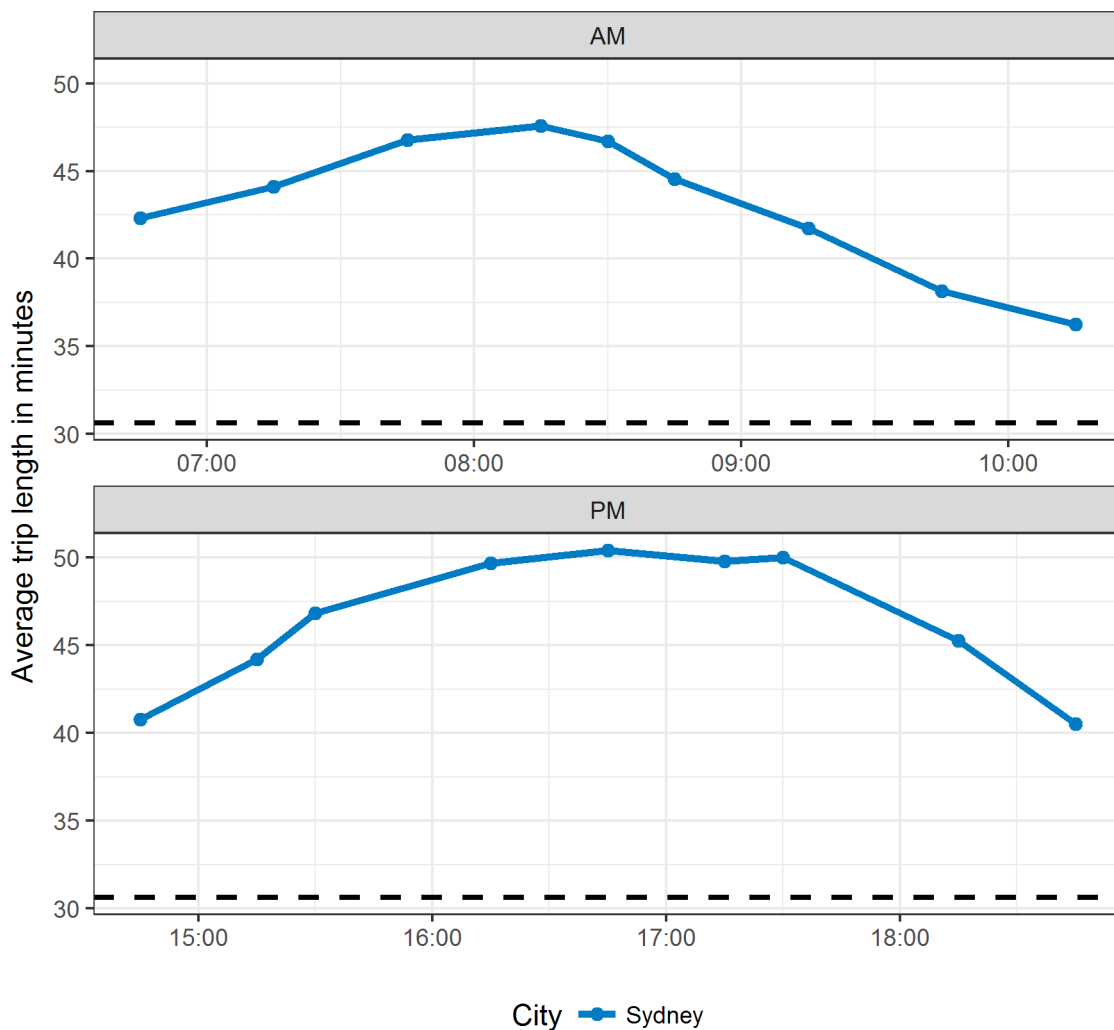


Data Source: Google Maps Distance Matrix API. Each point represents the average weekday trip time to/from the CBD of each regional centre from destinations within the metropolitan area. Destinations are the approximate geographical centre of SA1 statistical areas, as defined by the 2016 Australian Statistical Geography Standard.

Note: The dashed black line represents the average of 'baseline' trips, recorded at 1:30AM. It is expected that this time represents minimal congestion.

By comparison, the results for Sydney (Figure D.2) show a much larger change in travel times for the same period. For this exercise, we extracted data on travel times between the Sydney CBD (George St) and the centre of 267 areas in Sydney (which roughly equate to suburb/postcode boundaries). The morning peak represents average travel time to the CBD, whilst the afternoon peak represents average travel time from the CBD

Figure D.2 Change in Sydney travel times and average speeds



Data Source: Google Maps Distance Matrix API. Each point represents the average weekday trip time to/from the CBD of Sydney from destinations within the metropolitan area. Destinations are the approximate geographical centre of SA2 statistical areas, as defined by the 2016 Australian Statistical Geography Standard.

Note: The dashed black line represents the average of 'baseline' trips, recorded at 1:30AM. It is expected that this time represents minimal congestion.

Figure D.3 Areas where we estimated traffic congestion



Note: The white highlighted areas in the six maps show the regions in each city that we have used to model traffic congestion.
Data source: ABS; Google maps; IPART calculations. Google Maps APIs Terms of Service available from https://developers.google.com/maps/terms#section_10 accessed 27 September 2017.

E IPART's building block approach, efficient costs and cost recovery

We used AECOM's unit costs and our standard building block methodology to estimate the total efficient costs of providing bus services in rural and regional areas. To estimate cost recovery from fares, we separately estimated efficient costs for contracts that provide

- ▼ only dedicated school services, and
- ▼ both dedicated school and regular passenger services.

To estimate costs we assumed 'business as usual' reflects the requirements of the contracts in terms of:

- ▼ the number, type and average age of the bus fleet,
- ▼ the number of service kilometres travelled in a year, and
- ▼ the unit costs of providing the services.

We did not estimate the cost implications of 'optimising' the bus fleet (matching bus size more clearly to likely demand); changing regular bus services; or introducing on demand services. The remainder of this attachment explains in more detail how we estimated 'business as usual' efficient costs. All costs and revenue are shown ex-GST.

E.1 We separated 'School only' from 'School and regular passenger service' contracts

We estimated efficient costs for two types of bus contract:

- ▼ Contracts that provide only dedicated school services ('School only'), and
- ▼ Contracts that provide both dedicated school and regular passenger services ('School and regular').

'School only' contracts include all the Medium, Small and Very small (old) A contracts. 'School and regular' contracts include all the (old) B contracts plus the single Large A contract which, under the new contract system, also provides regular passenger services. However, we excluded from our detailed calculations the Small and Very small B contracts due to data constraints.²¹⁸ These (excluded) contracts account for around 20% of all 'School and Regular' contract costs and buses (see Table E.1).

²¹⁸ These contracts do not report actual service kilometres (which we need in order to estimate efficient costs).

Table E.1 Number of ‘School only’ and ‘School and regular’ contracts and buses included in our analysis

	School only	School and regular (sample)	School and regular (not in sample)	Total
	Medium, Small and Very small A	All Large ^a and Medium B	Small and Very small B	All contracts
Number of contracts	579	29	42	650
Number of buses	1,692	1,059	254	3,005
Average number of buses per contract	3	37	6	5
Contract costs (\$ million) ^b	207.7	161.2	35.2	404.1
Average cost per contract (\$ million) ^b	0.36	5.56	0.84	0.62

^c The Large (old) A contract provides both school and regular passenger services under the new contract system,

^d Average over the five year contract period (before escalation for inflation).

Note: Totals may not add due to rounding.

Source: Data from TfNSW, IPART calculations.

E.2 We used a ‘building block’ approach to estimate efficient costs

This section explains how we calculated total efficient costs based on our standard ‘building block’ approach. It first explains how we calculated a regulatory asset base (RAB) and a working capital balance for ‘School only’ and ‘School and regular’ contracts respectively. It then explains how we estimated efficient operating costs using AECOM’s unit costs. The last section outlines how we used this information to calculate total efficient costs.

E.2.1 We used AECOM’s ‘standard’ bus costs to establish a RAB

To establish a regulatory asset base (RAB) for buses on 1 January 2017 we:

- ▼ Modelled the (actual) existing bus fleet in terms of number of buses in each bus category (ie, in terms of bus sizes - see Box E.1)
- ▼ Used a standard cost for each bus category, based on a representative model for each category. This approach is in line with that adopted by AECOM when they reported unit costs (\$/km).
- ▼ Used an expect life of 15 years for bus categories 1 and 2 buses; and 25 years for categories 3 and 4 buses (based on the maximum service life in the contract).
- ▼ Assumed that buses were on average about half-way though their contract lives – 7 years old for bus categories 1 and 2 and 12 years old for bus categories 3 and 4. This provides a reasonable approximation of the actual average age of the bus fleet.²¹⁹

²¹⁹ See AECOM, *Efficient cost of rural and regional bus operators, Final Report*, December 2017, pp 5 and 18.

Box E.1 Bus categories

Buses are categorised according to the number of seated passengers they can carry.

- ▼ Category 1 – 8 to 14 passengers
- ▼ Category 2 – 15 to 28 passengers
- ▼ Category 3 – 29 to 43 passengers
- ▼ Category 4 – 44 or more passengers

Source: TfNSW

In order to roll forward the RAB over the contract period, we assumed that the total number of buses in each category would remain unchanged²²⁰. We also assumed that buses were continually being retired and replaced by the same model of bus, so as to keep the average age of the fleet roughly constant. As noted in Chapter 6, we consider that TfNSW should review the reported patronage of bus services to determine whether the size of the bus to allocated to routes is appropriate. Table E.2 and Table 4.3 show the RABs for 'School only' and 'School and regular' contracts respectively.

Table E.2 Regulatory Asset Base for 'School only contracts (2017 \$ million)

	2017	2018	2019	2020
Opening value	223.3	222.8	222.3	221.9
Capital expenditure	19.1	19.1	19.1	19.1
Disposals ^a	0.0	0.0	0.0	0.0
Depreciation	19.6	19.6	19.6	19.5
Closing value	222.8	222.3	221.9	221.5

^e When buses are disposed of at the end of their regulatory lives they are fully depreciated and therefore have no residual regulatory value.

Table E.3 Regulatory Asset Base for 'School and regular' contracts (2017 \$ million)

	2017	2018	2019	2020
Opening value	183.8	183.5	183.2	182.9
Capital expenditure	14.2	14.2	14.2	14.2
Disposals ^a	0.0	0.0	0.0	0.0
Depreciation	14.5	14.5	14.5	14.5
Closing value	183.5	183.2	182.9	182.6

^f When buses are disposed of at the end of their regulatory lives they are fully depreciated and therefore have no residual regulatory value.

E.2.2 We estimated working capital requirements

Bus operators receive monthly contract payments,²²¹ but have ongoing expenses that do not necessarily coincide with these payments, eg, fuel, wages and maintenance costs. Therefore, we have estimated average working capital requirements on the basis of

²²⁰ We did not attempt to 'optimise' the bus fleet by, for example, replacing large buses with smaller ones.

²²¹ See Transport for NSW, *Rural & Regional Bus Service Contract (Large)*, Schedule 3.

- ▼ Receivables at 15 days, based on half of the 30 day contract payment period, and
- ▼ Payables at 7 days, based on a fortnightly wage payment cycle and recognising that other payments may be immediate (eg fuel) while others may be paid within 30 days (eg, maintenance bills).

This is our standard approach to estimating working capital requirements. Table E.4 shows our estimated working capital balances.

Table E.4 Working capital balances for ‘School only’ and ‘School and regular’ contracts (2017 \$ million)

	2017	2018	2019	2020
‘School only’ contracts	3.7 to 3.9	3.7 to 3.9	3.7 to 3.9	3.7 to 3.9
‘School and regular’ contracts	2.7 to 2.8	2.7 to 2.9	2.7 to 2.9	2.7 to 2.9

Source: IPART calculations.

E.2.3 We used AECOM’s unit costs to estimate efficient operating costs

We used AECOM’s bottom-up cost analysis to estimate the efficient operating costs of ‘School only’ and ‘School and regular’ contracts. Specifically, we used

- ▼ AECOM’s unit costs per km for variable costs (driver, maintenance and fuel), and
- ▼ AECOMs unit costs per bus seat for overhead costs.

We estimated a range of efficient operating costs based on different wage rates for drivers. The lower bound uses Award wage rates and the upper bound uses the wage rates of typical NSW Enterprise Agreements (EA).²²²

Box E.2 illustrates how we used AECOM’s unit costs to estimate efficient operating costs. Table E.5 shows the total efficient operating costs for ‘School only’ contracts, and Table E.6 shows the total efficient operating costs for ‘School and regular’ contracts (2017 \$ million).

²²² AECOM calculated an overall labour cost of \$38.36 per hour based on wage rates and allowances in typical NSW EAs including allowances paid to casual drivers, and rates for weekends and public holidays. AECOM also noted that if the wage rates and allowances from the Award are used the overall labour cost would reduce to \$32.34 per hour (see section 6.2)

Box E.2 How we used AECOM's unit costs to estimate total efficient operating costs

Variable costs

For each type of bus, AECOM estimated a \$/km variable cost (driver, fuel and maintenance). We used this information in two steps:

- ▼ Step 1, we calculated the total annual variable costs for bus.
- ▼ Step 2, we added the total variable costs for all the buses in the fleet to get the total variable cost.

Step 1 example: Total variable cost for Bus category 4, using EA driver wages

$$\begin{aligned} & (\text{driver } \$/\text{km} + \text{fuel } \$/\text{km} + \text{maintenance } \$/\text{km}) \times \text{annual km per bus} \times \text{number of buses} = \\ & (\$0.99/\text{km} + \$0.53/\text{km} + \$0.15/\text{km}) \times 30,000\text{km} \times 900 \text{ buses} = \\ & \$1.67\$/\text{km} \times 30,000\text{km} \times 900 \text{ buses} = \\ & \$45.1 \text{ million pa} \end{aligned}$$

We repeated calculation for each type of bus in the fleet.

Overhead costs

AECOM also estimated an overhead cost of \$700 per seat per year.^a Again, we used this information in two steps:

- ▼ Step 1, we calculated the total annual overhead costs for each type of bus.
- ▼ Step 2, we added the total overhead costs for all the buses in the fleet to get the total variable cost.

Example: Total overhead cost for Bus category 4

$$700 \text{ per seat} \times 52 \text{ seats per bus} \times 900 \text{ buses} = \$32.8 \text{ million}$$

Total operating costs

We added total variable costs plus the total overhead costs for each type of bus to get total operating costs.

^a AECOM's average cost of \$700 per seat assumes that operators have 10% spare capacity. However, most Very small Small contracts are unlikely to have spare capacity (ie, spare buses). We took this into account by providing an overhead allowance of \$770 per seat for all Very small and 50% of Small contracts.

Source: AECOM data, IPART calculations.

E.2.4 We calculated total efficient costs

Our final step was to calculate the total efficient costs for 'School only' and 'School and regular' contracts respectively, using our standard building block approach. Total efficient costs include:

- ▼ Efficient operating costs
- ▼ A return on RAB, which we calculated by using a real post-tax WACC of 5.4% (see Appendix F)
- ▼ Depreciation (discounted to mid-year value)
- ▼ A return on working capital, using a real post-tax WACC of 5.4%, and

- ▼ An allowance for tax, using the statutory tax rate of 27.5% that is applicable to business with an annual turnover of up to \$10 million per year.²²³

Table E.5 shows the total efficient costs for ‘School only’ contracts, and Table E.6 shows the costs for ‘School and regular’ contracts. Operating costs account for over 80% of the total costs.

Table E.5 Total efficient costs for ‘School only contracts (2017 \$ million)

	2017	2018	2019	2020
Operating costs ^a	125.8 to 135.4	125.8 to 135.4	125.8 to 135.4	125.8 to 135.4
Depreciation ^b	19.1	19.1	19.1	19.1
Return on RAB	11.8	11.8	11.8	11.7
Return on working capital	0.2	0.2	0.2	0.2
Tax allowance	1.3	1.4	1.5	1.6
Total costs	158.2 to 167.7	158.2 to 167.8	158.3 to 167.9	158.4 to 167.9

a The efficient costs ranges reflect driver labour costs - Award rates and EA rates respectively.

b Depreciation in total costs is slightly lower than depreciation in the RAB roll forward. This is because depreciation in the RAB roll forward is the year-end value, whereas depreciation total costs is discounted to a mid-year value.

Source: IPART calculations.

Table E.6 Total efficient costs for ‘School and regular’ contracts (2017 \$ million)

	2017	2018	2019	2020
Operating expenditure ^a	90.1 to 96.1	90.1 to 96.1	90.1 to 96.1	90.1 to 96.1
Depreciation ^b	14.1	14.1	14.1	14.1
Return on RAB	9.7	9.7	9.6	9.6
Return on working capital	0.1	0.1	0.1	0.1
Tax allowance	1.0	1.1	1.2	1.3
Total costs	115.1 to 121.1	115.1 to 121.1	115.2 to 121.2	115.2 to 121.2

a The efficient costs ranges reflect driver labour costs - Award rates and EA rates respectively.

b Depreciation in total costs is slightly lower than depreciation in the RAB roll forward. This is because depreciation in the RAB roll forward is the year-end value, whereas depreciation total costs is discounted to a mid-year value.

Source: IPART calculations

E.3 Efficient costs are significantly lower than contract costs

Our estimated efficient costs are 20 to 25% lower than contract costs for ‘School only’ contracts and 28 to 32% lower for ‘School and regular’ contracts in the first contract year. These differences are in line with AECOM’s reported differences in \$/km costs (Table E.7).²²⁴

Contract costs change over the five year contract period for two main reasons:

²²³ <https://www.ato.gov.au/Business/Small-business-entity-concessions/Concessions/Income-tax-concessions/Small-business-company-tax-rate/>

²²⁴ AECOM’s reported \$/km contract costs are average costs over the contract period. (AECOM, *Efficient cost of rural and regional bus operators, Draft Report*, September 2017, pp 27 - 29).

- ▼ Contract interest and principal payments are only for buses that were in the fleet at the beginning of the contract period. The payments associated with any new or replacement buses are separately taken into consideration.²²⁵
- ▼ Payments in the contract category 'Other' increase on average for some 'School only' contracts and decrease for 'School and regular' contracts.²²⁶

We did not include the impact of AECOM's recommended downsizing of the buses used on regular passenger services to better match patronage. We consider that TfNSW and operators should consider the potential for downsizing buses as well as the nature of the services provided prior to the current contracts expiring in 2023. See Chapter 9 for further information on our recommended frameworks for procuring transport services including on demand.

We also note that the contract costs reported by TfNSW do not include an allowance for replacing buses as they reach the maximum age limits in the contracts. We have included an allowance for these buses in our efficient cost estimates.

Table E.7 Comparison of contract costs and efficient costs (\$2017 million pa)

		'School only'	'School and regular' (total) ^a	Total
Year 1 of contract period				
Contract costs	\$ million pa	210.5	203.3	413.8
Efficient costs	\$ million pa	158.2 to 167.7	139.2 to 146.5	297.4 to 314.2
Difference	\$ million pa	-52.3 to -42.7	-64.1 to -56.9	-116.4 to -99.6
Difference	%	-25% to -20%	-32% to -28%	-28% to -24%
Determination period (2018 to 2020)				
Contract costs	\$ million pa	208.0	195.9	403.9
Efficient costs	\$ million pa	158.3 to 167.9	140.3 to 147.6	298.6 to 315.5
Difference	\$ million pa	-49.7 to -40.1	-55.6 to -48.3	-105.3 to -88.4
Difference	%	-24 to -19%	-28 to -25%	-26 to -22%
Difference in \$/km reported by AECOM ^b		-20% to -14%	-32% to -20%	-32% to -14%

^a Efficient costs are scaled up to include Small and Very small B contracts, in proportion to their share of total contract costs.

^b AECOM reported contract and efficient costs per km for six contract categories, namely Large, Medium, Small and Very Small A contract s and Large and Medium B contracts. Contract costs are average costs over the five year contract period.

Note: Totals may not add due to rounding

Sources: AECOM, *Efficient cost of rural and regional bus operators, Draft Report*, September 2017, pp 27 – 29, IPART calculations

E.4 We estimated cost recovery in two ways

For 'School and regular' contracts, we estimated cost recovery from fares in two ways, namely fare revenue as a proportion of

- ▼ total efficient costs and

²²⁵ Over the first four contract years, these payments fall by around \$6.4 million per year for 'School only' contracts and \$4.9 million for 'School and regular' contracts.

²²⁶ Over the first four contract years, 'Other' payment increase by around \$2.2 million per year for 'School only' contracts fall by around \$5.4 million for 'School and regular' contracts.

- ▼ the share of efficient costs that we allocated to regular passenger services (with the remaining share allocated to dedicated school services).

We allocated costs between regular passenger services and dedicated school services and on the basis of service km.

We found that regular passenger services account for almost 50% of total efficient costs. Consequently we estimate that, while revenue from fares will recover around 5- 6% of total efficient costs in 2017,²²⁷ this revenue will recover around 10-12% of regular passenger services' share of these costs. Cost recovery from fares will be slightly lower in 2020 due to lower fares.²²⁸ (See Table E.8.)

Table E.8 Fare revenue as proportion of efficient costs for 'School and regular' contracts (sample), 2017 and 2020

Year	Total costs \$2017 million			Revenue from fares \$ 2017 million ^a				Revenue from fares as proportion of	
	Dedicated school services	Regular passenger services	Total	Adult	Con-cession	RED	Total	Regular passenger service costs	Total costs
2017									
Award ^b	59.4	55.6	115.1	2.6	2.0	2.1	6.7	12.0%	5.8%
EA ^b	62.5	58.5	121.1	2.6	2.0	2.1	6.7	11.4%	5.5%
2020									
Award ^b	59.5	55.7	115.2	2.0	1.6	2.1	5.7	10.3%	5.0%
EA ^b	62.6	58.6	121.2	2.0	1.6	2.1	5.7	9.7%	4.7%

^a We used average actual fares to calculate revenue from fares in 2017 (not maximum fares). To calculate revenue from fares in 2020, we used our draft fares and assumed that demand responds to lower fares, and that underlying patronage grows at 0.7% per year (due to population growth).

^b The efficient costs ranges reflect driver labour rates, ie Award rates and EA rates respectively.

Note: Totals may not add due to rounding.

Source: IPART calculations

²²⁷ Revenue from fares in 2017 uses actual fares (not maximum fares).

²²⁸ Revenue from fares in 2020 assumes that demand responds to lower fares, and that underlying patronage grows at 0.7% per year (due to population growth).

F Weighted Average Cost of Capital (WACC)

The rate of return is a key input to our calculation of the total efficient costs for dedicated school services and regular passenger services provided under rural and regional bus service contracts. We calculate the allowance for a return on assets – an element of the total efficient costs – by multiplying the Weighted Average Costs of Capital (WACC) by the RAB.

Our approach is to use a post-tax WACC to determine a rate of return.²²⁹ We first estimated a WACC range based on current and long term market data. Then we selected a point within the range (established by the mid-points of the two WACC ranges) using our uncertainty index. As our assessment of market uncertainty is currently within one standard deviation from the long term average of zero (ie, economic uncertainty is neutral), we used the midpoint of the range of WACC values.²³⁰

We have also considered the level of the industry-specific parameters (ie, the equity beta and the gearing level) by investigating:

- ▼ the risks of providing rural and regional bus services, and
- ▼ the value of equity beta and gearing levels of companies that face similar risks to the bus businesses we are regulating.

Table F.1 sets out the market and industry specific parameters that underpin our WACC decision.

Table F.1 WACC parameters and values

	Current market data			Long term averages			WACC range		
	Low	Mid	High	Low	Mid	High	Low	Mid	High
Nominal risk free	2.8%	2.8%	2.8%	4.0%	4.0%	4.0%			
Inflation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%			
Debt margin	1.8%	1.8%	1.8%	3.2%	3.2%	3.2%			
Market risk premium	7.1%	9.2%	11.2%	5.5%	6.0%	6.5%			
Gearing	60%	50%	40%	60%	50%	40%			
Gamma	0.25	0.25	0.25	0.25	0.25	0.25			
Equity beta	0.70	0.85	1.00	0.70	0.85	1.00			
Nominal vanilla WACC	5.9%	7.6%	10.2%	7.5%	8.2%	9.2%	7.6%	7.9%	8.2%
WACC (real post-tax)	3.3%	5.0%	7.6%	4.8%	5.5%	6.5%	5.0%	5.2%	5.5%

Note: Market data sampled to 31 October 2017.

Source: IPART calculations.

For the final decision, we have estimated a real post-tax WACC of **5.2%**. This is based on:

²²⁹ IPART, *Review of WACC Methodology - Final Report*, December 2013.

²³⁰ See IPART, *Review of WACC Methodology - Final Report*, December 2013, p 23 for further details on our decision rule for selecting a point within the range of WACC values.

- ▼ market-based WACC parameters (ie, risk-free rate, inflation rate, debt margin, market risk premium using current market data) estimated as of 31 October 2017, and
- ▼ an equity beta range of 0.7 to 1.0 and a gearing ratio range of 40% to 60%.

Adopting a gearing ratio range of 40% to 60% is a change from our draft decision where we used a point estimate of 50%, although it does not impact our WACC estimates. This is discussed further in section F.1.2.

Our final decision WACC is 20 basis points lower than the draft decision. In response to our Draft Report, BusNSW submitted that the return on capital should be based on the actual financing costs of the capital used to acquire vehicles under contracts.²³¹ The building block model we used to calculate the total efficient costs takes into account how much revenue would be required by an efficient 'benchmark' bus operator, rather than the actual bus operator. Therefore, the WACC reflects efficient financing costs that would be incurred by an efficient benchmark bus operator to attract the necessary investment capital to continue providing a reliable service.

In our regulatory framework, the benchmark operator is defined as 'a firm operating in a competitive market and facing similar risks to the regulated business'.²³² The risks faced by the benchmark entity are reflected in the two industry specific parameters (equity beta and gearing) used in the calculation of the WACC. These industry specific parameters only capture risks faced by an efficient benchmark firm operating in a competitive market. Risks faced by actual bus operators such as those associated with contract terms and conditions (including procurement of vehicles) are not accounted for in estimating the WACC.

The rest of this section provides our consideration of the industry-specific parameters – equity beta and gearing for the bus industry.

F.1 Industry-specific parameters

To determine the appropriate level for the equity beta and the gearing, we have evaluated the risks faced by bus operators. We have compared these risks to other businesses/industries we regulate. We have also investigated market evidence available from companies providing bus services.

In determining the equity beta and gearing level, our current practice is to adopt benchmark values (rather than the values of the regulated entity). This ensures that customers will not bear the costs associated with inefficient funding and capital structures. This is consistent with regulatory practice in Australia.

F.1.1 Equity beta and gearing ratio

The equity beta measures the extent to which the return of a particular security varies with the overall return of the market. It represents the systematic or market-wide risk of a security that cannot be eliminated by holding it as part of a diversified portfolio. It is

²³¹ BusNSW submission to the Draft Report, November 2017, p 4.

²³² IPART's review of WACC methodology is currently considering whether our current definition of the benchmark firm remains appropriate or can be improved. IPART, *Review of our WACC method – Issues Paper*, July 2017, p 12.

important to note that the equity beta does not measure business-specific or diversifiable risks.

The gearing ratio is the ratio of the value of debt to the total value of assets in the business' capital structure. Gearing is used to weigh the costs of debt and equity in estimating the WACC. Since, all else being equal, debt funding is cheaper than equity funding, the lower the level of gearing the higher the WACC and vice versa.

Our final decision is to use:

- ▼ an equity beta range of 0.7 to 1.0, which is the same as the draft decision, and
- ▼ a gearing range of 40% to 60%, instead of a point estimate of 50% used in the draft decision.

Risks relative to other industries

We have reviewed available information on the relative systematic risks of bus transport and updated our empirical analysis using listed comparator firms operating in bus passenger transport business. We found that the **equity beta range (0.70 to 1)** previously used for the 2016 Opal review and the 2014 review of metropolitan and outer metropolitan buses remain appropriate for modelling the efficient cost and cost recovery for providing rural and regional bus services.

Market evidence

Table F.2 presents gearing ratios for comparator firms. The average gearing ratio of firms in Table F.2 is 34%, whilst the average weighted by total capital is 43%. Firms with gearing ratios above 50% represent 47% of the market capitalisation shown in this table. In light of these facts, the gearing ratio estimate of 50% is a reasonable mid-point for a sample of transport firms with some bus operations, and we have therefore established a range of 40% to 60%.

The midpoint gearing ratio is somewhat lower than the 60% gearing ratio adopted for metropolitan bus services in our 2016 Opal review, but firms with gearing ratios above 60% represent only 11% of the market capitalisation.

While there seems to be a high level of variance in comparator firm data, our analysis does not suggest a lower target gearing ratio than the midpoint gearing ratio of 50%. Firms with gearing ratios above 46% represent 72% of the market capitalisation.

Table F.2 Average gearing ratios 2012-2016 for comparator firms

Company	Gearing ratio	Market cap (USDm)	Weight
SEIBU HOLDINGS INCORPORATED	51.2%	6,148	36.0%
KEISEI ELECTRIC RAILWAY COMPANY LIMITED	46.0%	4,194	24.6%
FIRST GROUP PUBLIC LIMITED COMPANY	63.2%	1,543	9.0%
STAGECOACH GROUP PUBLIC LIMITED COMPANY	30.6%	1,532	9.0%
CHUNIL EXPRESS COMPANY LIMITED	0.0%	107	0.6%
ADA SA	30.2%	28	0.2%
SAUDI PUBLIC TRANSPORT COMPANY SJSC	7.7%	506	3.0%
SBS TRANSIT LIMITED	38.5%	455	2.7%
DAIICHIKOUTSU SANGYO COMPANY LIMITED	81.3%	225	1.3%
BOCHUM-GELSENKIRCHEN AG	41.7%	179	1.0%
BREMER STRASSENBAHN AG	83.8%	26	0.2%
MOLS-LINIEN A/S	64.9%	126	0.7%
WEHA TRANSPORTASI INDONESIA TERBUKA PT	60.1%	10	0.1%
EKA SARI LORENA TERBUKA	32.4%	6	0.0%
ATP30 PUBLIC COMPANY LIMITED	27.5%	22	0.1%
KONSORTIUM TRANSNASIONAL BERHAD	59.6%	12	0.1%
DUC LONG GIA LAI INVESTMENT & DEVELOPMENT OF	9.1%	10	0.1%
JORDAN INVESTMENT TOURISM TRANSPORT COMPANY	11.7%	10	0.1%
GETS GLOBAL BERHAD	24.1%	5	0.0%
CITY GROUP COMPANY KSCP	4.7%	222	1.3%
SAIGONTOURIST TRANSPORT CORPORATION	11.8%	3	0.0%
CHINA MOTOR BUS COMPANY LIMITED	0.0%	521	3.1%
TRANSPORT INTERNATIONAL HOLDINGS LIMITED	12.2%	1,173	6.9%

Source: Thomson Reuters Datastream and IPART analysis.

F.1.2 Using gearing ratio with a range instead of a point estimate

Our final decision is to value the gearing ratio with a range of 40% to 60%. This is a change from our draft decision where we adopted a point estimate of 50%. This decision:

- ▼ recognises that comparable firms for the bus industry show a wide variance in their gearing levels and do not suggest a clear point of central tendency, and
- ▼ ensures consistency with our approach for determining an appropriate gearing ratio for the private ferry industry where we have adopted a range instead of a point estimate.

Our decision to use a range of 40% to 60% instead of a point estimate of 50% has no effect on the resulting WACC range or WACC midpoint estimate. This is because the resulting WACC range is set by the midpoints of the current and long term WACC ranges.

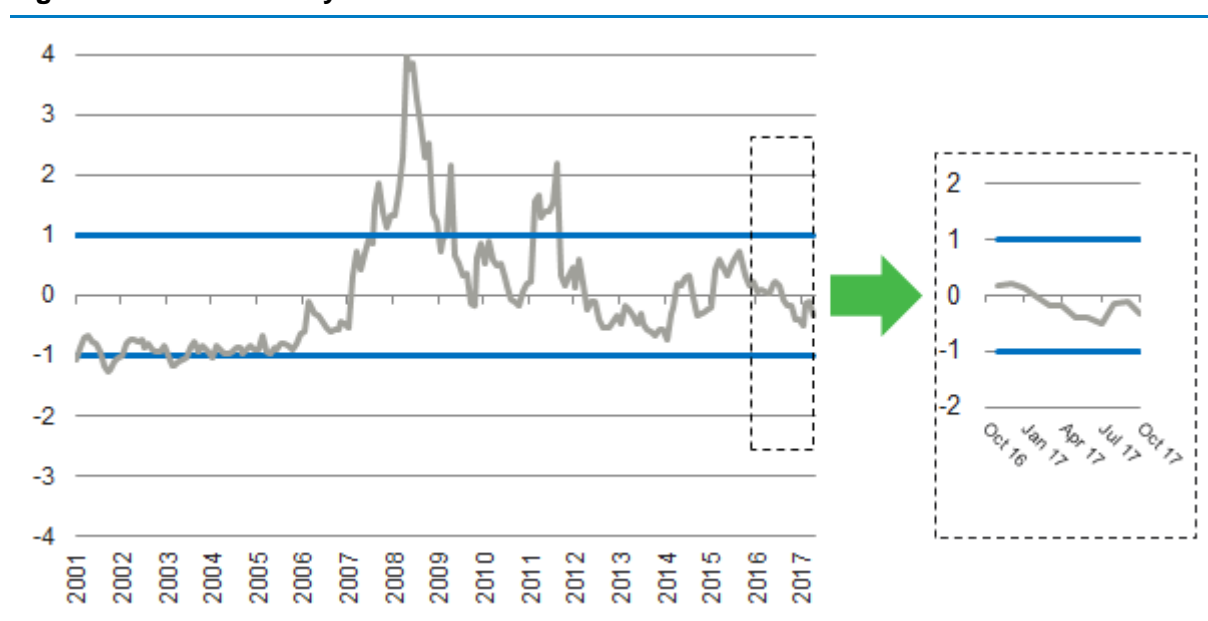
F.2 Our WACC decision rule

We use the uncertainty index to help us choosing a WACC point estimate from within the WACC range:

- ▼ If the uncertainty index is within or at one standard deviation from the long term average of zero (ie, economic uncertainty is neutral), we will select the midpoint WACC.
- ▼ If the uncertainty index is more than one standard deviation from the long term average of zero, we will consider moving away from the midpoint WACC. We will have regard to the value of the uncertainty index and additional financial market information.²³³

Figure F.1 shows that the uncertainty index is currently within one standard deviation from the long term average of zero. Based on IPART’s decision rule, we have decided to adopt the midpoint of the real post-tax WACC range, 5.2%, as the point estimate WACC.

Figure F.1 Uncertainty index



Data source: Thomson Reuters DataStream and IPART calculation.

Our final decision WACC is **20 basis points lower** than the draft decision WACC calculated as of the end of June 2017. The difference in the WACC since the draft decision is due to changes in the market-based parameters.

The table below shows how these market-based parameters have changed since the draft decision. Most parameter movements would reduce the WACC when considered in isolation. However, the increase in the current risk free rate offsets these decreases to some extent.

²³³ IPART, *Review of WACC Methodology - Final Report, December 2013*, p 23.

Table F.3 Changes in market-based parameters and effect on WACC

	Current	Effect on the WACC	Long term	Effect on the WACC
Risk free rate	Increased by 30 bps	↑	Decreased by 10 bps	↓
Inflation	Increased from 2.4% to 2.5%	↓	Increased from 2.4% to 2.5%	↓
Debt margin	Decreased by 30 bps	↓	No change	-
MRP	Midpoint decreased by 30 bps	↓	No change	-

Source: Bloomberg, RBA and IPART analysis.

G Route cost analysis – regular passenger services (excluding school students)

We have developed a bus cost model which calculates the efficient costs of operating an additional service on a bus route for regular passenger services (ie, the efficient marginal cost). Our cost model uses the unit costs estimated by AECOM.

Using the model, we have analysed the current cost per passenger on around 230 regular passenger routes. We have estimated the efficient marginal costs of four different scenarios. These scenarios are designed to reflect differences in how the fleet is utilised across all services (ie, both regular passenger services and school services):

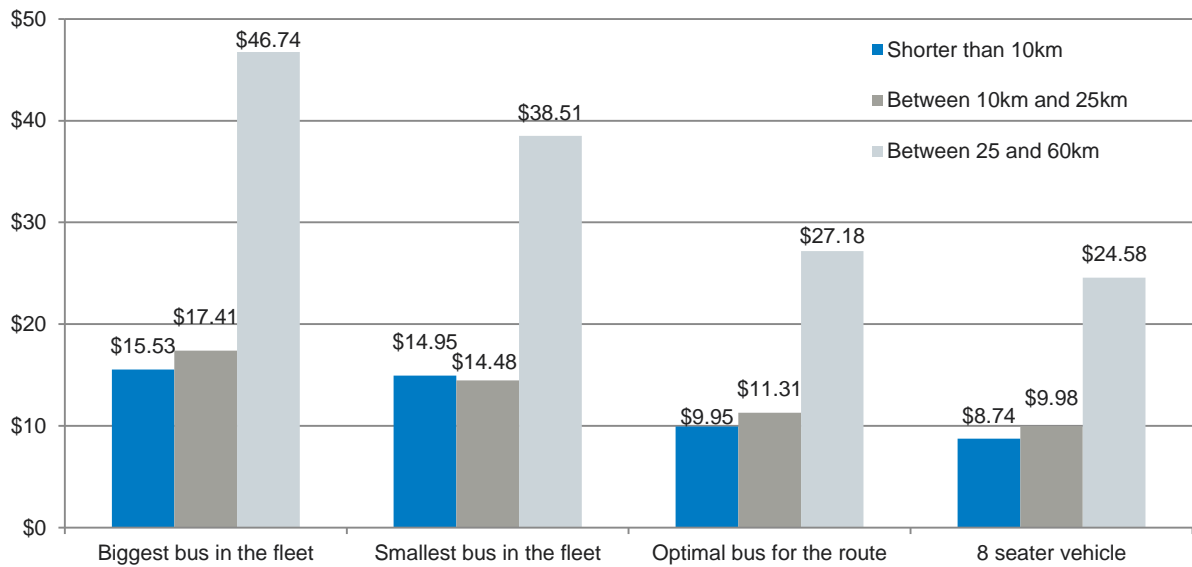
4. **Biggest bus in the fleet:** this assumes that the largest bus in the fleet is used to provide a school service in the morning and regular passenger services at other times. No capital costs of the bus are allocated to the regular passenger services but variable costs and a proportion of overhead costs are allocated to the regular passenger services.
5. **Smallest bus in the fleet:** this assumes that the smallest bus in the fleet is used to provide a school service in the morning and regular passenger services at other times. No capital costs of the bus are allocated to the regular passenger services but variable costs and a proportion of overhead costs are allocated to the regular passenger services.
6. **Optimal bus for the route:** this assumes that the regular passenger service is run as a standalone bus service where the bus is optimised to the level of patronage. The capital costs of the optimised bus as well as variable costs are allocated to the regular passenger service.
7. **8 seater vehicle:** this assumes that the regular passenger service is run as a standalone service using an 8-seat vehicle. The capital costs of the 8 seat vehicle as well as variable costs are allocated to the regular passenger service.

In our modelling we have assumed:

- ▼ Dead running speed is 60 kilometres per hour (km/h) and for calculating the tax allowance an average speed of 40km/h.
- ▼ A vehicle operates on average at 75% capacity to allow for peaks in demand and for identifying the optimal vehicle for the route.
- ▼ An efficient bus operates 60 hours each week for 52 weeks each year, and each service is allocated its share of overheads, depreciation, return on capital and tax allowance based on the service's duration (including dead-running).
- ▼ Fuel costs are based on AECOM's estimates of fuel cost and consumption.

Figure G.1 shows how the median efficient marginal cost per passenger journey for routes of different lengths changes as the fleet utilisation assumption is varied.

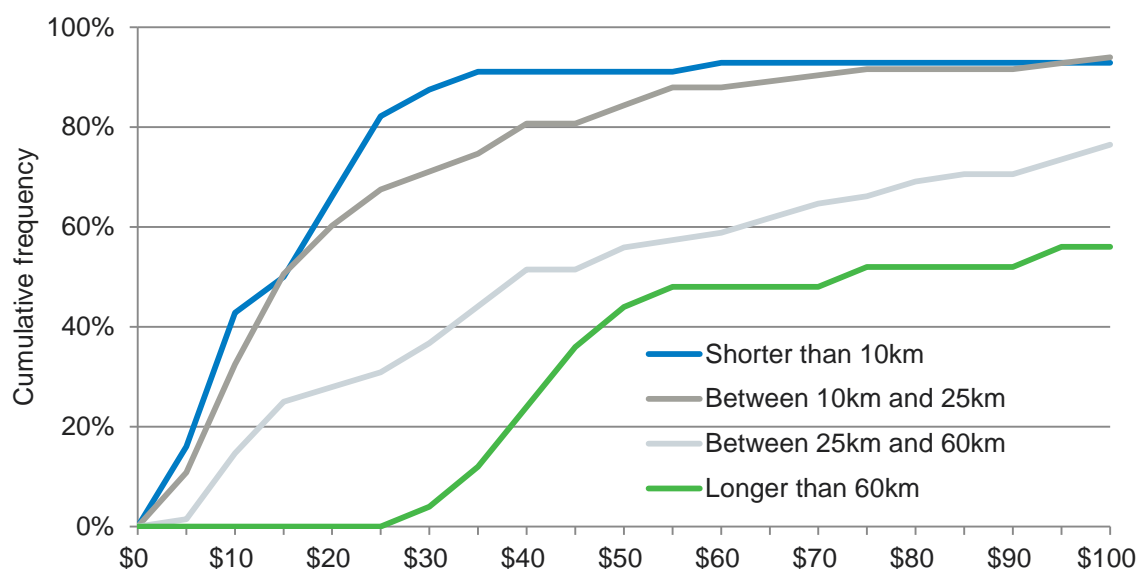
Figure G.1 Median marginal efficient costs per regular passenger journey by route length



Data source: IPART Analysis.

Figure G.2 shows the cumulative distribution of efficient marginal costs per regular passenger journey by route length for the smallest bus in the fleet scenario. For example, around two-thirds of 0-10 km routes have an efficient marginal cost per regular passenger journey less than \$20. This shows that there are many routes with a high cost per passenger journey based on current utilisation.

Figure G.2 Cumulative distribution of cost per regular passenger journey for the smallest bus in the fleet



Data source: IPART Analysis.

As noted in Chapter 6, TfNSW began making use of competitive tendering for school services in rural and regional areas. It sought responses from the market for around 13

school routes.²³⁴ We consider that TfNSW should make more use of competitive tendering to ensure the costs of rural and regional bus services including school routes reflect efficient costs.

²³⁴ Information to IPART, TfNSW, 5 July 2017.

H On demand services and case study assumptions

H.1 On demand services

On demand services can be designed in many different ways to suit local needs and conditions. Table H.1 provides an overview of the advantages and limitations of different types of on demand services described in Section 7.3.

Table H.1 Overview of different types of on demand services

Option	Description	Advantages	Limitations
1a. Fixed route with deviations for booked stops	Normal fixed route service which deviates to pick up passengers from a pre-arranged, mutually convenient stop only when customer books.	<ul style="list-style-type: none"> ▼ Simple to understand for customers ▼ Simple to run for operators ▼ May be able to estimate service kilometres (kms) ▼ Mechanism to better target fixed routes over time 	<ul style="list-style-type: none"> ▼ Limited by local geography as it needs workable pickup points close to fixed route ▼ May exclude mobility impaired customers ▼ Optimal system needs sophisticated technology to maximise bus utilisation at fixed stops
1b. Fixed route with deviations including homes	As Option 1a, but customers can also book pickup from home.	<ul style="list-style-type: none"> ▼ As Option 1a but less likely to be able to estimate service kms ▼ Serves mobility impaired customers 	<ul style="list-style-type: none"> ▼ Limited to areas with specific housing density ▼ More variability of journey times ▼ May require more driver training to assist customers ▼ Optimal system needs sophisticated technology to maximise bus utilisation at fixed stops
1c. Fixed route with deviations and multiple destinations	As Option 1b, but with several destinations at one end which can be either booked or pre-arranged.	<ul style="list-style-type: none"> ▼ As Option 1b ▼ Increased value of service that can travel to key destinations such as hospital and Centrelink 	<ul style="list-style-type: none"> ▼ As Option 1b ▼ Dispersed deviations reduce journey time reliability ▼ Increased uncertainty/variability of dead running with destination on demand
2a. Fixed route plus a roam zone	Many possible pickup points including homes and pre-arranged stops at one end, with one or few destinations on the other end. Final destinations can be booked or fixed but are generally chosen based on community need.	<ul style="list-style-type: none"> ▼ Can be adapted for many purposes including transport network or community services feeder ▼ Works well for mobility impaired and mobile customers ▼ Well suited to satellite towns or outlying suburbs with poor transport ▼ Balances flexibility and 	<ul style="list-style-type: none"> ▼ Limited to specific geography/density that will support a cost effective roam zone ▼ Unpredictable service kms ▼ Risk of unreliable journey times if a roam zone is poorly constructed ▼ Road network of roam zones must be navigable.

		<ul style="list-style-type: none"> reliable journey times ▼ Roam zone routes become predictable over time ▼ Can achieve better bus utilisation and lower per passenger cost of bus journey ▼ More demand responsive ▼ Well suited to fill gaps in after-hours services 	
2b. Fixed route with more than one roam zone	As Option 2a but after picking up at multiple roam zone points, bus delivers to any point within a new drop off roam zone at the other end and possibly to a fixed terminus.	<ul style="list-style-type: none"> ▼ Can act as a feeder route to important services ▼ Can be adapted for many purposes and suit a variety of community needs ▼ Works well for both mobility impaired and mobile customers ▼ Well suited to satellite towns or outlying suburbs ▼ Highly flexible service and more demand-responsive 	<ul style="list-style-type: none"> ▼ Complex for operators and some customers ▼ Stronger geography and density requirements – both roam zones must be cost effective with two sets of sympathetic road networks ▼ Highly unpredictable service kms ▼ Journey time reliability may cause patronage decline and threaten viability ▼ Needs highly sophisticated real time updates for fixed route customers
2c. Many to Many with trunk deviations	As Option 2b, but with booked diversions permitted along the main corridor between pickup roam zones and drop off roam zones, as in Option 1b.	<ul style="list-style-type: none"> ▼ Can be adapted for many purposes and suit a variety of community needs ▼ Works well for both mobility impaired and mobile customers ▼ Well suited to satellite towns or outlying suburbs ▼ Highly flexible and demand responsive 	<ul style="list-style-type: none"> ▼ As Option 2b ▼ Unreliable journey times ▼ Limited to road network with workable corridor pickup point
3a. Demand responsive loop	Bus travels a loop only stopping at pre-determined stops when a customer books, and at a few fixed destinations.	<ul style="list-style-type: none"> ▼ Suited to regional centres ▼ More convenient service for booking customers ▼ Can significantly reduce travel times to the fixed destinations during the off peak period ▼ Highly flexible without the cost of a taxi 	<ul style="list-style-type: none"> ▼ Unpredictable service kms ▼ Value added over well targeted fixed routes in regional centres is unclear ▼ Difficult to assess the value of the service without section based patronage data ▼ Sophisticated technology is likely to be required
3b. Roam Zone only	Bus picks up and drops off as requested at any of the pre-arranged stops in the zone booked in advance by a customer for a certain time window	<ul style="list-style-type: none"> ▼ As Option 3a ▼ Can compensate for poor frequency of regional centre fixed bus routes 	<ul style="list-style-type: none"> ▼ Unpredictable service kms ▼ Difficult to assess the value of the service without section based patronage data ▼ Sophisticated technology is likely to be required

			<ul style="list-style-type: none"> ▼ Highly unreliable journey times once demand passes a certain threshold. May not be able to effectively meet higher demand for the service.
4a. Point to point Taxi or Community Transport	Regular car or maxi taxi picks up passengers at the exact location and time of their choosing and delivers to destination which can be anywhere – traditional taxi service. Some Community Transport may operate this way, but operational models vary widely. Some Community Transport may require more advanced notice of booking.	<ul style="list-style-type: none"> ▼ Maximum demand responsiveness and service flexibility ▼ Excellent for mobility challenged customers ▼ Can be booked with relatively little notice (taxis). ▼ Can be scheduled to repeat pickups regularly (Community Transport) 	<ul style="list-style-type: none"> ▼ Taxis may be a costly option. Could be unaffordable for longer journeys. ▼ Some rural and regional areas do not have enough or any taxis. ▼ Some taxi drivers may not have training required to properly assist special needs customers. ▼ Community Transport is affordable but may be less demand responsive – supply is also variable by region.
4b. Point to point Taxi or Community Transport with multiple stops	As Option 4a, but the route may make several stops along the way to destination at a customer's request, perhaps to share the Taxi/Community Transport vehicle or to assist the customer with errands.	<ul style="list-style-type: none"> ▼ As Option 4a ▼ Even greater flexibility ▼ Especially suited to special needs customers 	<ul style="list-style-type: none"> ▼ As Option 4a ▼ For taxis, usually even greater cost ▼ Less journey time reliability for shared Community Transport

H.2 Case study assumptions

We used our bus cost model to estimate costs of the on demand component of our three case study bus routes. The assumptions used are set out in Table H.2.

Table H.2 On demand case study assumptions

Inputs	Suburb to Centre (Route A)	Fixed Route with Side Stops (Route B)	Satellite to Services (Route C)
Length of trip (km)			
	En-route	5.84	6.53
	Deadrunning	1.75	1.96
Duration of trip (minutes)			
	En-route	30	30
	Deadrunning	10	10
Number of passengers		5	2
For on-demand			
	Distance of detour (km)	4.36	3.02
			4.1

Added time from detour (minutes)	15	20	15
Number of passengers on detour	3	8	4
Include in marginal cost			
Dead-running	Yes	Yes	Yes
Spare capacity	10%	10%	10%
Fuel (\$/litre)	1.16	1.16	1.16
Maintenance	Yes	Yes	Yes
Labour	Yes	Yes	Yes
Overheads	100%	100%	100%
Depreciation	0%	0%	0%
Return on Assets and Tax allowance	0%	0%	0%
Vehicle	Toyota HiAce Commuter	Toyota HiAce Commuter	Toyota HiAce Commuter

Source: IPART Analysis.

Table H.3 On demand case study costs

Outputs	Suburb to Centre (Route A)	Fixed Route with Side Stops (Route B)	Satellite to Services (Route C)
Fixed route marginal cost			
per route	\$25.57-\$29.58	\$25.81-\$29.82	\$39.76-\$45.78
per km	\$4.38-\$5.07	\$3.95-\$4.57	\$3.11-\$3.58
per passenger	\$5.11-\$5.92	\$12.90-\$14.91	\$9.94-\$11.45
per passenger km	\$1.75-\$2.03	\$3.95-\$4.57	\$1.55-\$1.79
On demand marginal cost			
per route	\$9.99-\$11.50	\$12.58-\$14.58	\$9.92-\$11.43
per km	\$2.29-\$2.64	\$4.16-\$4.83	\$2.42-\$2.79
per passenger	\$3.33-\$3.83	\$1.57-\$1.82	\$2.48-\$2.86
per passenger km	\$1.53-\$1.76	\$1.04-\$1.21	\$1.21-\$1.39

Source: IPART Analysis.

We assumed that dead running is approximately 30% of the total fixed route based on an analysis of actual reporting under the current bus contracts. However, other assumptions such as journey time, allocation of total journey time to fixed versus on-demand components, and amount of time needed for the deadrun, are based on distance travelled. We also assumed that on average, a passenger on the detour (either in a roam zone or a side stop) is on the bus for 50% of that detour. This assumption holds well for side stop designs but less so for roam zones, particularly if roam zones are drawn over areas where houses are evenly spaced.

H.2.1 Vehicle type is 12-seat Toyota Hiace

We have assumed a 12-seat Toyota Hiace as the service vehicle for all the case studies. We consider that a 12 seat vehicle is appropriate to respond to potential demand spikes in a regional centre, especially as the on demand case studies also have fixed route components which must accommodate unexpected (and non-booked) passengers.

H.2.2 Spatial coverage within roam zones

Where a case study bus route has a roam zone, we have assumed that the driver takes the longest possible route through this zone. This increases the number of kilometres reported for the 'detour' component of on demand routes. We have chosen this approach because the exact kilometre distance of the route through the roam zone is uncertain, and it is more useful to estimate an upper bound to costs. The actual kilometres will depend on different factors including the number and location of bookings from within the roam zone and whether or not route optimisation software has been used.

H.2.3 Fixed route demand responses are not modelled

For on demand bus services there will often be a trade-off between the flexibility and reliability of the services. Highly flexible services with roam zones or door pickups add to the length and may increase uncertainty around the reliability of the journey time. This can trigger a cycle where patronage drops due to unreliable journey times, at which point the journey becomes more reliable with fewer passengers, hence stimulating patronage again. We have chosen Option 2a as a route type with potential in rural and regional NSW, because it can balance this trade-off by keeping the roam zone small and the on demand passengers spatially clustered.

Our modelling does not capture the relationship between the flexibility and reliability of the on-demand service. Generally, there is a trade-off between flexibility and reliability as highly flexible services add to the journey length and increase uncertainty about reliability and this in turn affects the level of patronage. We have assumed that the added journey time and decreased timing reliability have no effect on patronage for the fixed route component of the service.

H.2.4 Other cost considerations

Our model uses existing labour cost data for standard bus services. In most rural and regional areas, standard bus services do not operate after hours. We note that the costs of providing on demand services after hours are likely to be higher because of higher labour costs. Further, the model does not account for any marginal costs of booking, dispatch, payment, or other operating systems needed for on demand. As Chapter 7 discussed, we expect that these costs to decrease over time.

Our model does not account for the way in which a roam zone or any other flexible element may contribute to the deadrun. For late night services where most of the demand is for pickups in town and drop-offs in suburbs or villages without much or any patronage going the other way, the service would likely require a deadrun close to 100% of the route.

I Cross border fares

I.1 NSW–QUEENSLAND

Table I.1 Surfside Buslines (NSW) Fare Schedule (\$)

Zones	Adult fares				Pension/Child fares			
	Single	Daily	Off-Peak Daily	Off-peak Weekly	Single	Daily	Off-Peak	Weekly
1	2.30	4.60	3.50	18.40	1.20	2.40	1.80	9.60
2	3.40	6.80	5.10	27.20	1.70	3.40	2.60	13.60
3	5.20	10.40	7.80	41.60	2.60	5.20	3.90	20.80
4	6.00	12.00	9.00	48.00	3.00	6.00	4.50	24.00
5	6.90	13.80	10.40	55.20	3.50	7.00	5.30	28.00
6	7.60	15.20	11.40	60.80	3.80	7.60	5.70	30.40
7	8.20	16.40	12.30	65.60	4.10	8.20	6.20	32.80
8	8.80	17.60	13.20	70.40	4.40	8.80	6.60	35.20
9	9.60	19.20	14.40	76.80	4.80	9.60	7.20	38.40
10	11.30	22.60	17.00	90.40	5.70	11.40	8.60	45.60
11	12.00	24.00	18.00	96.00	6.00	12.00	9.00	48.00
12	12.90	25.80	19.40	103.20	6.50	13.00	9.80	52.00
13	13.90	27.80	20.90	111.20	7.00	14.00	10.50	56.00
14	14.90	29.80	22.40	119.20	7.50	15.00	11.30	60.00
15	16.40	32.80	24.60	131.20	8.20	16.40	12.30	65.60
16	17.50	35.00	26.30	140.00	8.80	17.60	13.20	70.40
17	18.50	37.00	27.80	148.00	9.30	18.60	14.00	74.40
RED	2.50							

Source: <http://www.surfside.com.au/tickets-and-fares/> accessed 23 April 2017.

Table I.2 TRANSLink (Queensland) – South East Queensland Adult fares (\$)

Zones travelled	go card	go card off-peak	Single paper ticket
1		3.20	4.60
2		3.90	5.70
3		5.96	8.60
4		7.85	11.40
5		10.32	15.00
6		13.09	19.00
7		16.28	23.60
8		19.32	28.00

Note: Concession fares are 50% of the adult fares.

Source: <https://translink.com.au/tickets-and-fares/fares-and-zones/current-fares>, accessed 23 April 2017

I.2 NSW-ACT

Table I.3 Qcity Transit (NSW) Fare Schedule (\$)

Sections	One Way (\$)		Return (\$)	
	Full fare	Concession	Full fare	Concession
1	2.20	1.10	4.00	2.20
2	3.20	1.60	5.80	3.20
3	4.00	2.00	7.20	4.00
4	4.70	2.30	8.50	4.60
5	5.30	2.60	9.50	5.20
6	5.90	2.90	10.60	5.80
7	6.40	3.20	11.50	6.40
8	6.90	3.40	12.40	6.80
9	7.40	3.70	13.30	7.40
10	7.80	3.90	14.00	7.80
11	8.00	4.00	14.40	8.00
12	8.30	4.10	14.90	8.20
13	8.40	4.20	15.10	8.40
14	9.00	4.50	16.20	9.00
15	9.40	4.70	16.90	9.40
16	9.70	4.90	17.40	9.80
17	10.10	5.00	18.20	10.00
18	10.40	5.20	18.70	10.40

a: Average section length is 1.6km.

Note: Qcity Transit indicated that with the exception of the first section, its fares are below the maximum fares set by the NSW Government.

Source: <http://qcitytransit.com.au/fares-sections>, accessed 24 April 2017.

Table I.4 ACTION Buses (Canberra) Fare Schedule (\$)

	My Way Adult		MyWay Concession		Cash Fare ^a	
	Peak	Off Peak	Peak	Off Peak	Adult single	Adult daily
Fare	3.06	2.43	1.53	0.00	4.80	9.20
Weekday cap	9.20		4.60			
Weekend/ public holiday cap	5.59		2.07			

a Single cash fare tickets include 90 minute free transfer. Daily tickets are valid until midnight on the day of purchase.

Note: Free 90 minute transfer applicable for all tickets - enables connecting to a different bus or commencing a return journey using the same ticket.

Source: <https://www.transport.act.gov.au/myway-and-fares>, accessed 24 April 2017.

I.3 NSW-Victoria

Table I.5 Martin's Albury buses – Fare Schedule (\$)

Section	Single Fares		Return Fares	
	Adult	Pensioner/Child/ Student	Adult	Pensioner/Child/ Student
1	2.30	1.10	4.40	2.20
2	3.20	1.60	6.20	3.10
3	3.90	1.90	7.60	3.80
4	4.00	2.00	7.80	3.90
5	4.10	2.00	8.00	4.00
6	4.20	2.10	8.20	4.10
7	4.30	2.10	8.40	4.20
8	4.40	2.20	8.60	4.30
9	4.50	2.20	8.80	4.40

Note: Martin's Albury buses notes that with the exception of the first section, all its fares are below the restraints set by the NSW Government.

Source: <http://www.martinsalbury.com.au/ticketing/fares-sections>, accessed 1 May 2017.

Table I.6 Wodonga - Albury Category A Fare Schedule (\$)

Ticket type	Fare for one zone	Fare for two zones
Full Fare 2 hour	2.40	3.20
Concession 2 hour	1.20	1.60
Full Fare Daily	4.80	6.40
Concession Daily	2.40	3.20
Full Fare Weekly	22.40	32.80
Concession Weekly	11.20	16.00
Full Fare Monthly	94.80	134.40
Concession Monthly	47.40	67.20

Source: Victorian Fares and Ticketing Manual, Effective 1 January 2017, Regional Towns Bus Fares, Category A, p 129.

J Concession eligibility for public transport in NSW, Queensland, ACT and Victoria

Table J.1 Concession eligibility for public transport buses – NSW, Queensland, ACT and Victoria

NSW Rural and Regional	Sydney Metro (Opal network)	Queensland	ACT	Victoria
FREE TRAVEL				
Children				
▼ 3 and under	√	4 and under	5 and under	4 and under
▼ Primary/ secondary school students (SSTS)	√	√	√	√
Aged				
	-	-	ACT Seniors aged 70+	-
People with disabilities				
▼ Vision impaired persons plus attendant and guide dog	√	√	Permanent impairment and TPI Travel Pass	√
▼ Assistance Animals (Hearing Dog)	√	√		√
▼ Attendants for profoundly disabled persons	√	x	Not specifically mentioned	Not specifically mentioned
Veterans/ War Widow/ers				
▼ World War 1 veterans and wives /widows plus attendant	√		DVA Gold Cards with TPI or EDA plus attendant	DVA Gold Card with TPI or EDA (Victorian resident)
▼ Australian & New Zealand war veterans with service related disabilities and Department of Veterans Affairs (DVA) pension plus attendant	√		DVA Gold Cards embossed with Totally and Permanently Incapacitated (TPI) or Extreme Disablement Adjustment (EDA)	
▼ Blinded Soldiers plus attendant	√			
▼ People recognised for service to the State plus attendant	Not specifically mentioned			
▼ Companion accompanying person with profound disabilities of lifelong nature	Not specifically mentioned			
CONCESSION – Half fare				
Children/ Students				
▼ Primary and Junior Secondary Students 4-15	√	Children 5-14	All students of Australian institutions	Children 5-18
▼ Secondary students 16-18	√	√		
▼ Full-time University, TAFE, private college				

(16+) or full time School Students (19+)	√	√ (Queensland residents)		
Apprentices/Trainees				
Indentured Apprentice/Trainee	√	Post-secondary students residing in Queensland	Not specifically mentioned	Not specifically mentioned
Pensioners/Seniors				
▼ Seniors (all states/territories)	√	√	√	√
▼ Pensioners (Centrelink and DVA issued cards - all states/territories)	√	√	√	√
All Pensioners but only NSW Seniors also entitled to RED tickets ^a	Gold Opal			
Centrelink customers				
Jobseekers (on maximum benefit)	√	√	Not specifically mentioned	√
Asylum seekers				
Also entitled to RED ticket	√	√	Not specifically mentioned	√
NSW & Victorian War Widowers				
(with DVA card)	√	Queensland residents with Gold DVA card	DVA Gold Card	DVA Gold or White Card
Also entitled to RED ticket				

^a RED ticket approved for services under a Rural and Regional Bus Service Contract that allows Approved Beneficiaries unlimited travel for that day on the Operator's contract bus services.

Note: Eligibility conditions may apply for some travel entitlements. As well, different transport concession authority cards may be issued by different jurisdictions. However, most Commonwealth Government-issued concession cards are accepted across jurisdictions.

Source: <https://www.transportnsw.info/tickets-opal/ticket-eligibility>; <http://www.transport.nsw.gov.au/sites/default/files/b2b/bus/draft-rrbsc-medium-271115.pdf>; https://www.transport.act.gov.au/_data/assets/pdf_file/0009/1041849/Concession-Cards-2017-A3-Poster-v1.pdf; <https://translink.com.au/tickets-and-fares/concessions>; https://www.ptv.vic.gov.au/search/getSearchForm?Search=concession&UserFilter%5B0%5D=0&UserFilter%5B1%5D=1&action_getSearchResults.x=0&action_getSearchResults.y=0; <https://transportnsw.info/search/node?keys=gold+opal&=Search>; accessed 24 April, 2017



K IPART bus passenger and operator surveys

We conducted online surveys of passengers and operators of rural and regional bus services. The surveys were posted on the IPART website and completed on an opt-in basis following the release of our May Issues Paper. 202 passengers and 78 bus operators completed the surveys. We have used these findings to inform our final decisions and recommendations on fares and on demand services.

The sections below summarise the findings of IPART's online survey.

K.1 Bus passenger survey

Our bus passenger survey gathered information from local residents about the characteristics of their bus travel and sought feedback on the fare levels and how services could be improved, including the development of flexible bus services.

K.1.1 What we asked rural and regional bus passengers

We asked local residents about:

- ▼ the frequency and purpose of their travel by bus
- ▼ whether they travel using a concession card
- ▼ if they have school aged children, how often they travel to/from school using the School Student Travel Scheme (SSTS)
- ▼ whether there are any issues travelling by bus across borders
- ▼ views about the level of adult bus fares
- ▼ willingness to pay more for more convenience bus services (for example, flexible pick-up and drop-offs, booking a service with an app).

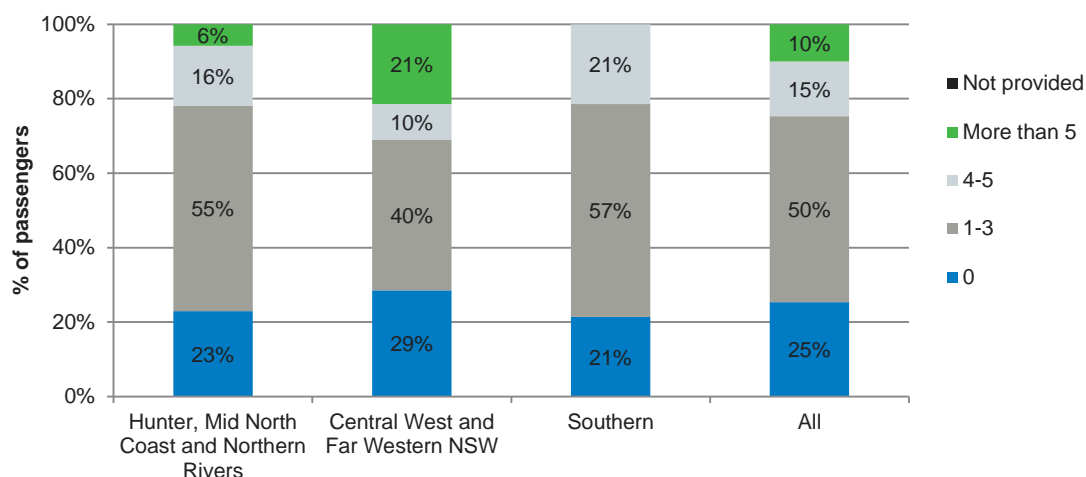
K.1.2 What are the key findings from the survey?

Most passengers use bus services 1-3 times a week

Figure K.1 shows that around 40% to 60% of the respondents across all regions said they use local bus services 1-3 times a week.²³⁵ 21% to 31% use bus services at least 4 times a week.

²³⁵ Responses from the Illawarra have been excluded, due to an insufficient number of responses from Illawarra (n=2).

Figure K.1 Frequency of travel by local buses in rural and regional NSW



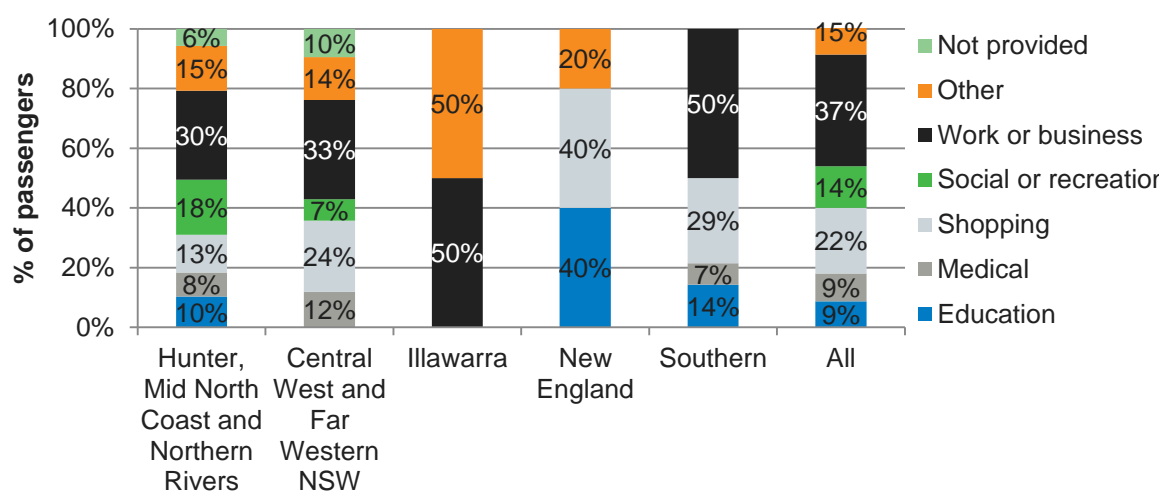
Note: There are an insufficient number of responses from Illawarra (n=2) and New England (n=5) to present the survey results at a regional level.

Data source: IPART rural and regional bus passenger survey, June 2017.

Most passengers use local bus services to travel for work, recreation and shopping

Passengers use local bus services for a range of reasons. They use buses to travel for work or business (37%), shopping (22%), social or recreation (14%), medical appointments (9%), and education (9%).

Figure K.2 Purpose of bus travel in rural and regional NSW



Note: There are an insufficient number of responses from Illawarra (n=2) and New England (n=5) to present the survey results at a regional level.

Data source: IPART rural and regional bus passenger survey, June 2017.

Across all regions, more than 50% of the respondents said that they use bus services to travel in or out of town. Some respondents answered they use bus services to travel across a border to a neighbouring state or territory, such as Queensland and Australian Capital Territory. Several issues were raised in relation to travelling across a border, such as

connectivity of services across border (eg, need to change bus), fare integration (eg, need to purchase different tickets to complete their journey or not being able to use the Opal card).

Most students use bus services every day to travel to/from school

We asked passengers whether they have school aged children and if so how often they travel to/from school using the School Student Travel Scheme (SSTS). Overall, 21% said they have school aged children using local buses to travel to/from school under the SSTS. Of these, more than 90% answered their child travel to/from school using the SSTS every day.

Passengers answered bus services were not good value for money

Overall, 47% did not consider their local bus services were good value for money.

K.1.3 How might local bus services be improved?

The survey respondents provided various ideas on how to improve local bus services. In general, the most common themes were:

- ▼ more regular bus services, including outside of business hours and on weekends
- ▼ more affordable fares
- ▼ more reliable bus services
- ▼ rural and regional bus services to be part of the Opal network
- ▼ buses running more direct routes and express bus services (for longer journeys)
- ▼ better connectivity with different buses and train
- ▼ improved services such as newer vehicles, more comfortable seating, and electronic ticketing system
- ▼ up-to-date information on bus routes and timetables
- ▼ flexible pick-up or set-down points, or on demand bus services using smaller buses, which are accessible via an app, and
- ▼ improved bus utilisation with smaller buses.

K.2 Bus operator survey

The bus operator survey gathered information on different bus operations, including the level of bus utilisation during peak and off-peak periods, and sought feedback on the development of more flexible bus services.

K.2.1 What we asked rural and regional bus passengers

We asked bus service providers who hold a rural and regional bus service contract with Transport for NSW (TfNSW) about:

- ▼ what bus services they provide

- ▼ how many buses they have
- ▼ how full bus services are on a typical day, and
- ▼ what are the constraints to services being provided more flexibly.

K.2.2 Who participated in this survey?

The surveys were conducted online following the release of our Issues Paper in May 2017. 78 rural and regional bus operators completed the survey.

The respondents were from a range of different regions, including Central West and Far Western NSW (42%), Hunter, Mid North Coast and Northern Rivers (14%), New England (18%), Southern (12%), and Murray-Murrumbidgee (12%). We did not receive any response from operators in the Illawarra region.

K.2.3 What are the key findings from the survey?

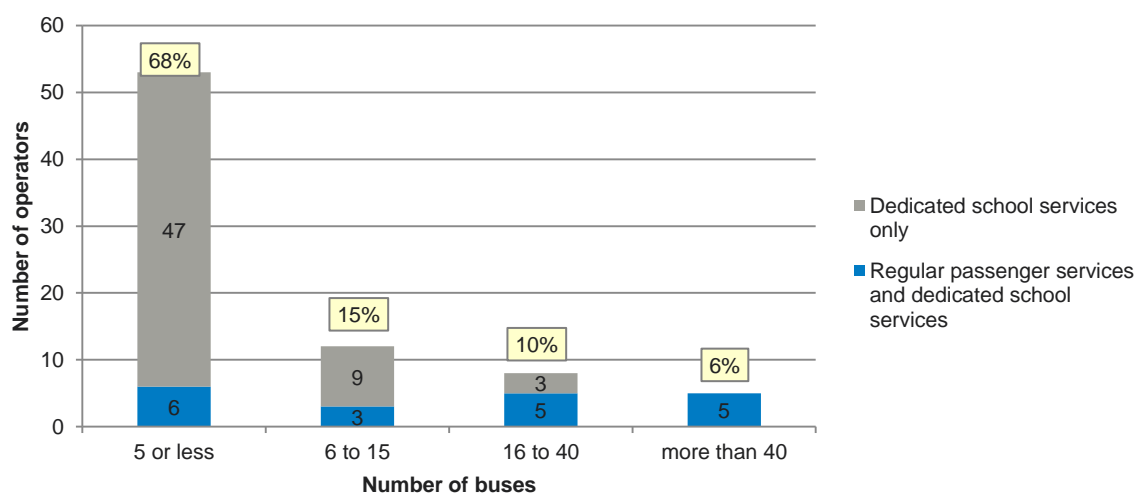
Most bus operators provide dedicated school services only

76% of the respondents said they provide dedicated school services only. The remaining 24% provide both dedicated school services and regular passenger services.

Most bus operators have no more than five buses

Figure K.3 shows that 68% of the respondents said they have no more than five buses in their fleet – these operators hold “Very Small” contracts with TfNSW. 15% hold “Small” contracts with six to 15 buses. 10% and 6% hold “Medium” and “Large” contracts, respectively. The majority of the “Small” and “Very Small” operators provide dedicated school services only.

Figure K.3 Number of buses in operators’ fleet



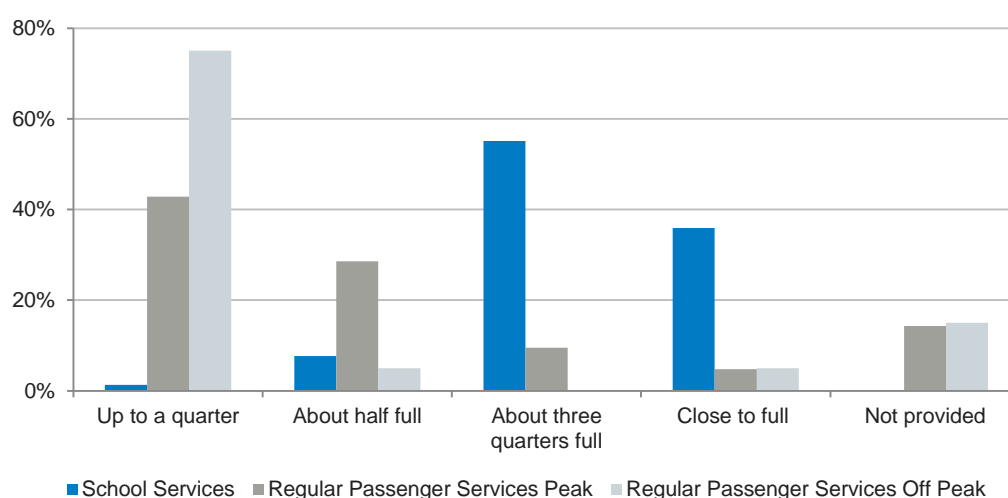
Data source: IPART rural and regional bus passenger survey, June 2017.

Most school bus services run more than 75% full unlike regular passenger services

55% of the respondents providing school services only said bus services are about three quarters full on a typical day. 36% answered school services run close to full capacity.

On the contrary, regular passenger services run less than half full on a typical day during both peak and off-peak periods. Of those operators providing regular passenger services in addition to dedicated school services, 43% said their regular passenger services run less than a quarter full on a typical day during the **peak period**. Only 5% said services run close to full during peak periods. During the **off-peak**, 75% said their regular passenger services run less than about a quarter full, and 5% said services run close to full during peak period.

Figure K.4 Bus utilisation for different services



Data source: IPART rural and regional bus passenger survey, June 2017.

K.2.4 What constrains the development of more flexible bus services?

We sought feedback on the development of more flexible bus services in rural and regional areas. In particular, we asked whether there are any constraints that could prevent the development of more flexible bus services in their respective regional areas.

While several respondents considered more flexible bus services would be well supported, some raised a number of issues including:

- ▼ Potential demand given the demographic and population profile: Some respondents said most people in rural and regional areas have their own vehicle and hence flexible bus services could be underutilised.
- ▼ Operational issues in terms of costs and finding qualified drivers willing to take on a split shift type of work:
- ▼ Handling multiple pick-up and drop-off bookings, and
- ▼ Possibly competing with the Community Transport Service for passengers.