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TTF – L.E.K. Consulting

Public Transport Barometer
December 2016

A Review of Key Public Transport Indicators for Australia

Contents

About

Tourism & Transport Forum (TTF)

Tourism & Transport Forum (TTF) is the peak industry group for the Australian tourism, transport, aviation and investment sectors. A national, member-funded CEO forum, TTF advocates the public policy interests of leading corporations and institutions in these sectors.

TTF is one of Australia's leading CEO networks and represents over 460,000 employees. In addition to strong policy advocacy for its member sectors, TTF works at many levels to provide influence, access and value to Member businesses.

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The TTF – L.E.K. Consulting *Public Transport Barometer* has been developed to provide up-to-date insight into the performance of major metropolitan public transport networks in Australia. Each edition will monitor public transport across Australia as well as explore specific challenges and opportunities facing service providers. The *Barometer* will promote the role of public transport in our capital cities and look at how operators are achieving improvements in customer service nationwide.

In this second edition we observe how public transport patronage across Australia has continued to grow for most modes compared to a year ago. We can also see how our measures of punctuality show a range of variability across different modes and cities. However we can see that punctuality has improved in some cities when looking at the multi-year trend (in particular Melbourne's rail system).

In each issue of the *Barometer*, we examine a specific issue affecting the public transport industry today and put this 'In the Spotlight'. In this issue, we explore how technology is changing the customer experience for transport users and discuss ten key technology trends.

L.E.K Consulting and Tourism & Transport Forum (TTF) are delighted to partner together to present this second edition of the *Transport Barometer*.

Simon Barrett
Senior Partner, L.E.K. Consulting

Margy Osmond
Chief Executive Officer, Tourism & Transport Forum

Patronage – An Overview

Of all Australia's capital cities, Sydney and Perth have delivered the most consistent growth in patronage over the last three years. Sydney has grown rail patronage by an average of 2.5% per annum since 2012, and this growth rate has been accelerating. Bus punctuality has continued to improve following the introduction of new contracts in 2012/13.

NSW is also seeing improvements and high levels of customer satisfaction in their bus networks, in particular those that are operated by the private sector.[1] This provides a strong argument for the NSW government to pursue the franchising of State Transit Authority (STA) buses. Ferry patronage in Sydney declined in part due to wharf upgrades, but has been flat overall across three years.

Perth's rail and bus services continue to deliver relatively steady long term growth over three years. The small ferry service remains weak, with patronage declining for the third year running.

Melbourne public transport patronage growth has continued to slow with rail showing only modest growth and tram in decline over the past three years.

Brisbane's[2] rail system achieved its first year of growth in several years, but bus and ferry patronage both declined.

Adelaide has not published transport performance data for total boardings by mode, however total patronage, including initial boardings and transfers, is said to have increased by 5.5 per cent across the Adelaide Metro network in 2014-15.[3]

1 Transport for NSW, Customer Satisfaction Index.

2 Includes Brisbane and South East Queensland.

3 Department of Planning, Transport and Infrastructure Annual Report 2014-15. Excluding effects of changes to capture of "free services" patronage.

Rail patronage

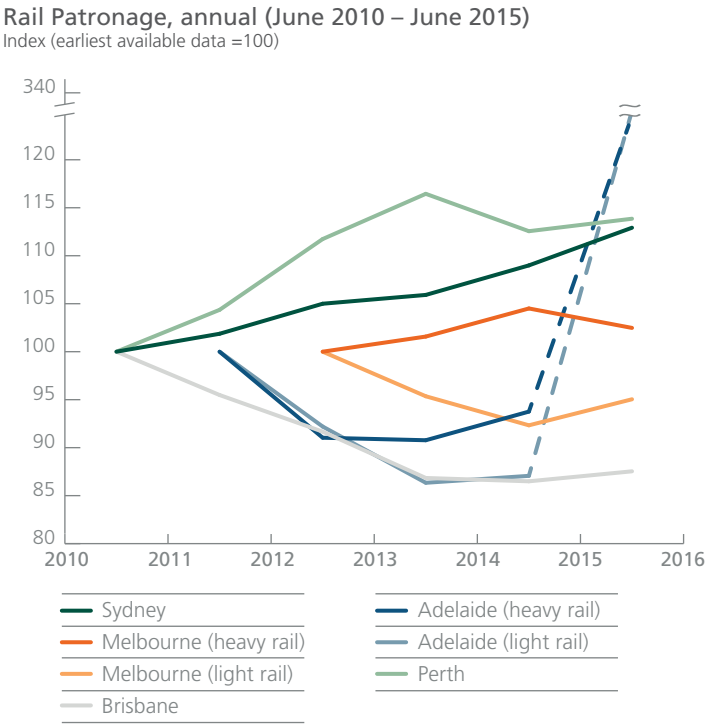
Rail patronage shows a considerable variability across different cities (Figure One). In the most recent year, growth has been strongest in Sydney with Sydney Trains achieving average annual growth of 2.5%p.a. over three years. Melbourne's rail patronage declined slightly in 2015 but has been positive overall across the last three years. (Figure Two). Patronage on Melbourne's light rail (tram) rose strongly in 2015 (2.9%) after two prior years of decline.

Brisbane's rail patronage rose slightly in 2015, the first annual rise for several years following both disruption caused by floods and the impact of earlier significant fare rises.

Transperth Trains' delivered moderate growth in 2015, after a weak 2014, but with positive growth overall across the last three years

Adelaide does not provide total boardings split by mode. Initial boardings data shows a marked increase due to inclusion of all free travel in data capture for the first time in FY15. Free travel included approximately 8.3 million free trips using services such as the Adelaide Oval Footy Express, City Connector, Free City Tram and Free Jetty Road Glenelg Tram.

Figure 1: Rail and light rail patronage



Note: Methodology change in Adelaide (FY15)

Figure 2: Rail patronage: Year on year change (CAGR%)

	Y-o-Y patronage growth			Patronage Δ 2012-15	Population Δ 2012-15	GSP / capita Δ 2012-15
	Jun 2012-13	Jun 2013-14	Jun 2014-15			
Sydney*	+0.9%	+2.9%	+3.6%	+2.5%	+1.8%	+0.8%
Melbourne (Heavy rail)	+1.6%	+2.9%	-1.9%	+0.8%	+2.1%	-0.3%
Melbourne (Light rail)	-4.6%	-3.2%	+2.9%	-1.7%		
Brisbane	-5.3%	-0.4%	+1.2%	-1.5%	+1.7%	+0.2%
Perth	+4.2%	-3.3%	+1.2%	+0.6%	+2.1%	+2.3%
Adelaide (Heavy Rail)**	-0.3%	+3.3%	n/a	+1.5%^	+1.0	+0.5%
Adelaide (Light Rail)**	-6.4%	+0.8%	n/a	-2.8 ^		

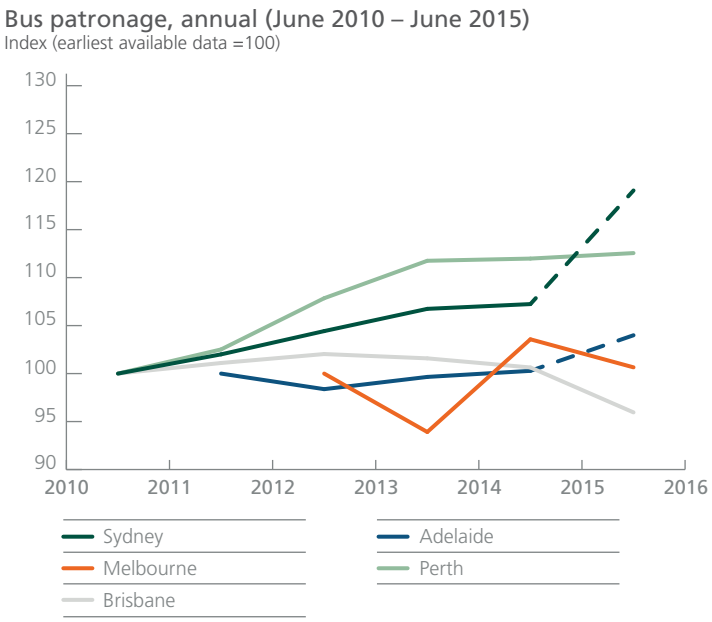
Note: * Sydney Trains and NSW Intercity ** Initial boardings only. Methodology changed in FY15 to include all free boardings ^ Patronage change FY2012-14

Patronage

Bus patronage

Performance across bus networks has been mixed, with little or no growth across many cities. Patronage growth in Melbourne took a step backwards in 2015 after very strong growth in the prior year but remains positive over three years. Brisbane's bus network saw a significant decline in patronage in 2015, continuing a negative trend over three years. Perth bus patronage experienced continued steady growth over the three years to 2015. Adelaide initial boardings appear to have increased, however this may be overstated due to the impact of recording all free services patronage for the first time in FY15. In Sydney, a change to the way bus patronage data is captured has prevented comparison to previous years.

Figure 3: Bus patronage



Note: Methodology change in Adelaide (FY15)

Ferry patronage

Ferry patronage went backwards across all three cities, with declines ranging from 7% in Sydney to 14% in Brisbane. While the three year trend is flat for Sydney, the Perth service has been consistently losing patrons.

Figure 5: Ferry patronage

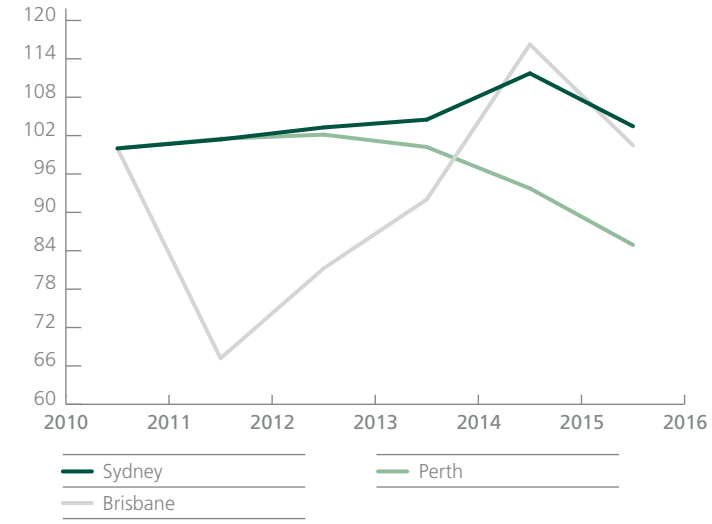


Figure 4: Bus patronage: Year on year change (CAGR%)

	Y-o-Y patronage growth			Patronage Δ 2012-15	Population Δ 2012-15	GSP / capita Δ 2012-15
	Jun 2012-13	Jun 2013-14	Jun 2014-15			
Sydney*	n/a	+0.5%	n/a	n/a	+1.8%	+0.8%
Melbourne	-6.1%	+10.3%	-2.8%	+0.2%	+2.1%	-0.3%
Brisbane	-0.4%	-0.9%	-4.7%	-2.0%	+1.7%	+0.2%
Perth	+3.6%	+0.2%	+0.5%	+1.4%	+2.1%	+2.3%
Adelaide**	+1.3%	+0.6%	n/a	+1.0%^	+1.0%	+0.5%

Note: * Methodology changed in FY13 and FY15 ** Initial boardings only. Methodology changed in FY15 to include all free boardings ^ Patronage change FY2012-14

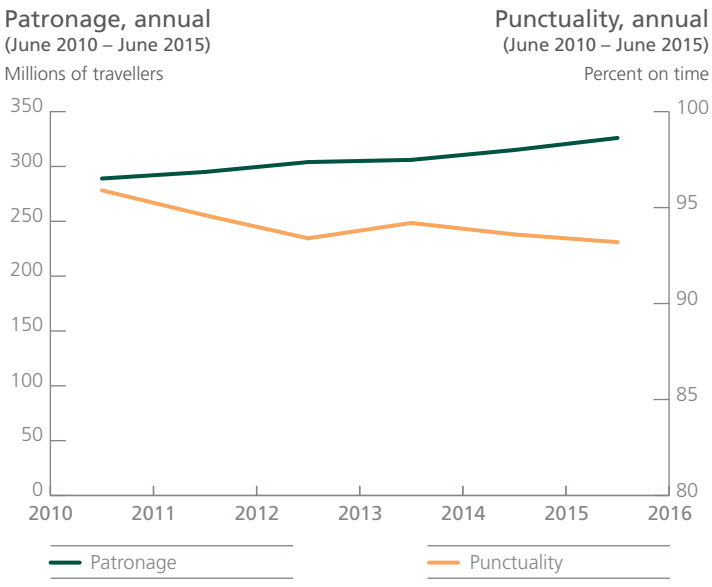
Figure 6: Ferry patronage: Year on year change (CAGR%)

	Y-o-Y patronage growth			Patronage Δ 2012-15^	Population Δ 2012-15	GSP / capita Δ 2012-15
	Jun 2012-13	Jun 2013-14	Jun 2014-15			
Sydney	+1.2%	+6.9%	-7.4%	+0.1%	+1.8%	+0.8%
Brisbane	+13.3%	+26.3%	-13.6%	+7.3%	+1.7%	+0.2%
Perth	-1.9%	-6.5%	-9.4%	-6.0%	+2.1%	+2.3%

Sydney

Rail

Sydney Rail* performance metrics time series



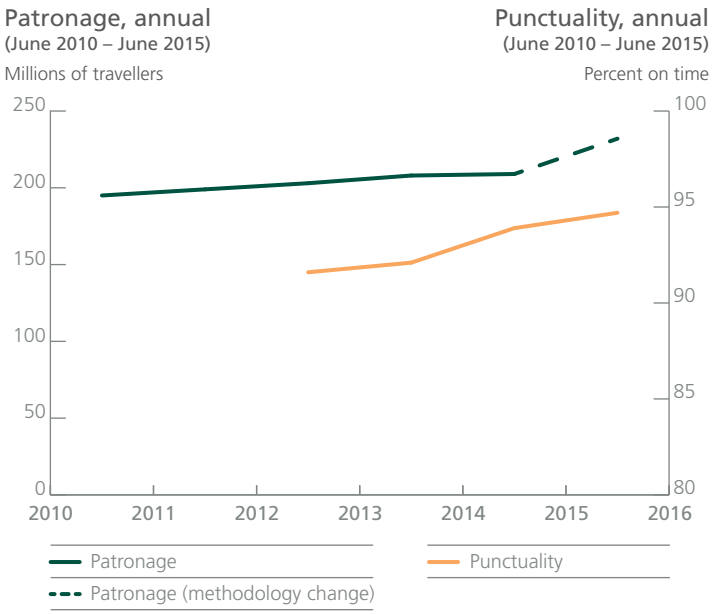
	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	326.4 million	+3.6%	+2.5%
Punctuality	93.2%	-0.4%	-0.2%
Reliability	n/a	n/a	n/a

- Sydney rail patronage continues its steady growth and has been the strongest in the country over the last three years
- Punctuality remains broadly in line with historical levels

Note: *Sydney Trains and NSW Intercity trains.

Bus

Sydney Bus* performance metrics time series



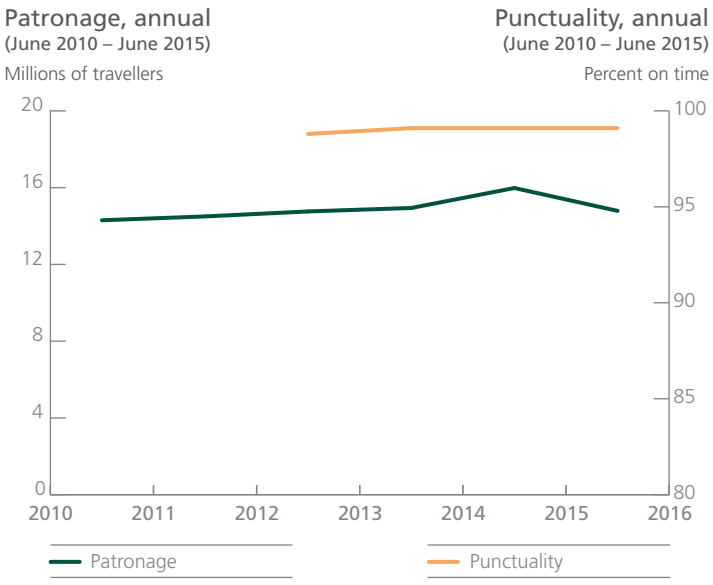
	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	232.0 million	n/a	n/a
Punctuality	94.7%	+0.8%	+3.1%
Reliability	n/a	n/a	n/a

- From January 2015, Sydney changed its patronage methodology to include School Student Transport Scheme and Free Shuttle boardings
- Punctuality data improved by nearly 1% in 2015

Note: *Metropolitan STA and private bus operators. Methodology change FY15.

Ferry

Sydney Ferry* performance metrics time series



	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	14.8 million	-7.4%	+0.1%
Punctuality	99.1%	0.0%	+0.3%
Reliability	99.7%	-0.1%	-0.2%

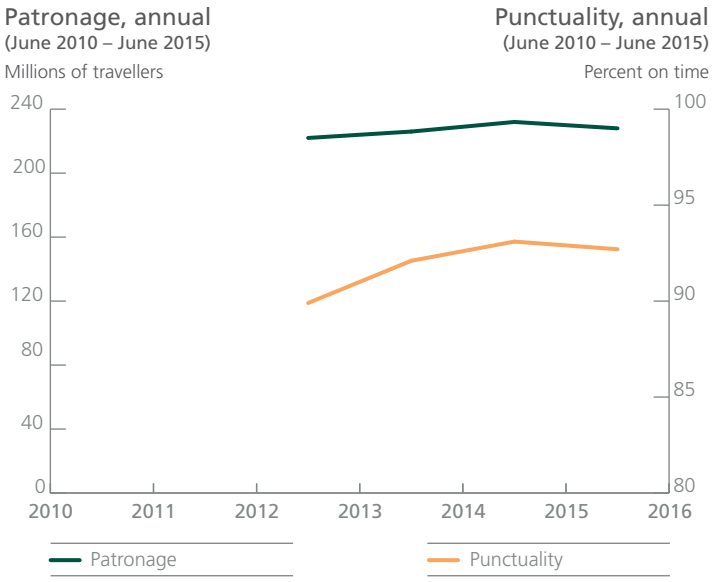
- Ferry patronage fell significantly in 2015, but has been flat overall across the last three years. The TfNSW ferry wharf upgrade program has been attributed with somewhat impacting patronage in 2014-15[4]
- Punctuality and reliability performance remains very strong

Note: *Harbour Ferries only.
4 Transport for NSW Annual Report 2014-15

Melbourne

Rail

Melbourne Rail performance metrics time series

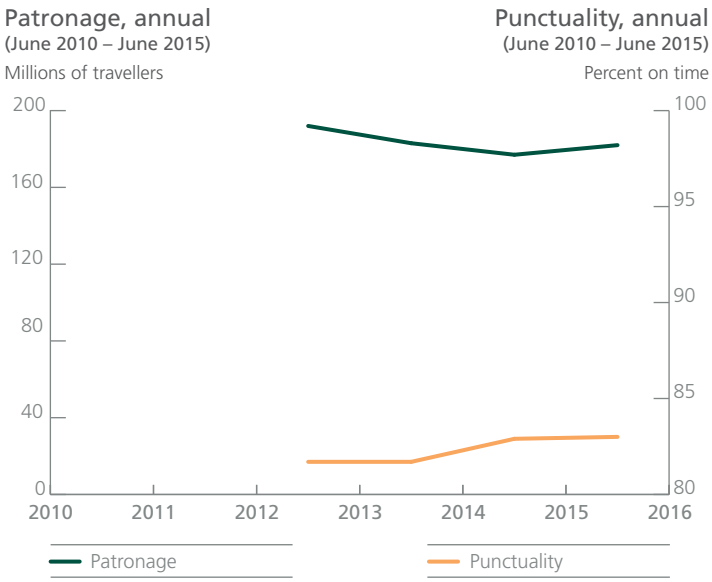


	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	227.5 million	-1.9%	+0.8%
Punctuality	92.7%	-0.4%	+2.8%
Reliability	98.8%	-0.1%	+0.3%

- Rail patronage fell slightly in 2015, but has grown across the last three years
- Punctuality deteriorated slightly after several years of strong improvement

Light rail

Melbourne Light Rail performance metrics time series



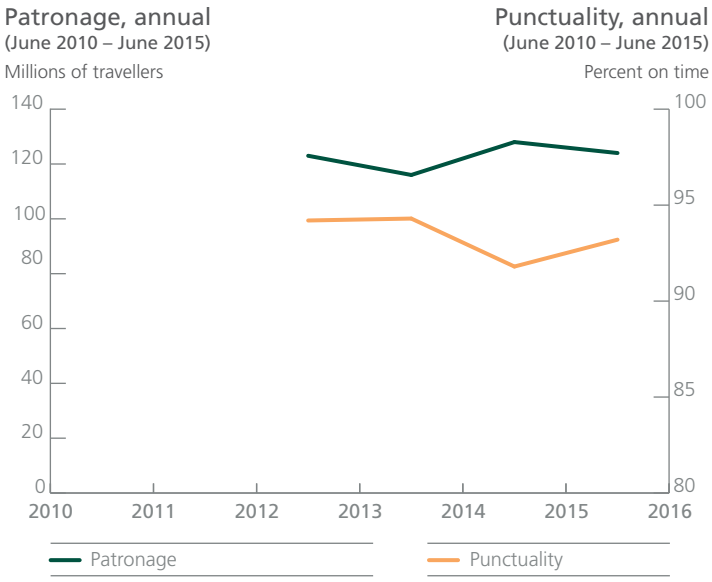
	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	182.1 million	+2.9%	-1.7%
Punctuality	83.0%	+0.1%	+1.3%
Reliability	99.1%	+0.2%	n/a

- Light rail patronage rose strongly during 2015, somewhat reversing the trend of the prior two years. This is due to the new Free Tram Zone which increased tram boardings in the CBD by more than 20%[5]
- Punctuality and reliability both improved slightly

5 Public Transport Victoria Annual Report, 2014-15

Bus

Melbourne Bus performance metrics time series



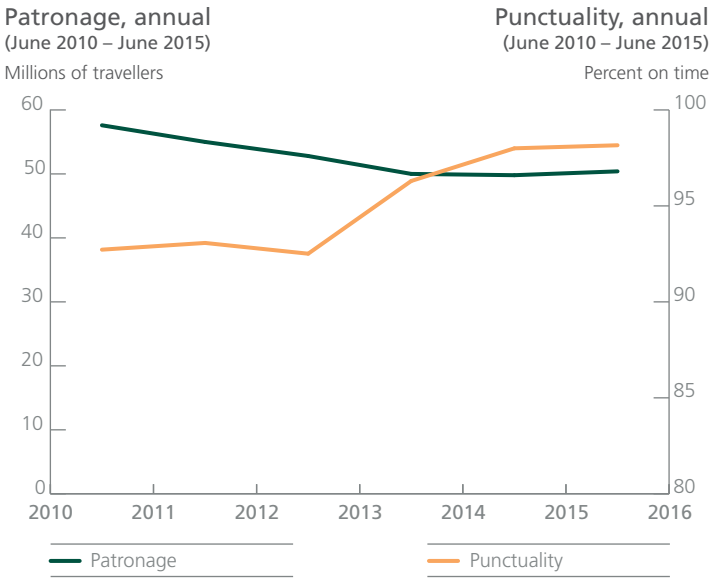
	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	124.0 million	-2.8%	+0.2%
Punctuality	93.2%	+1.4%	-1.0%
Reliability	99.9%	0.0%	0.0%

- Bus patronage decreased in 2015 after strong growth in the prior year. It is broadly flat overall across the last three years
- Reliability of bus services remains very strong, whilst punctuality improved

Brisbane & South East Queensland

Rail

Brisbane Rail* performance metrics time series



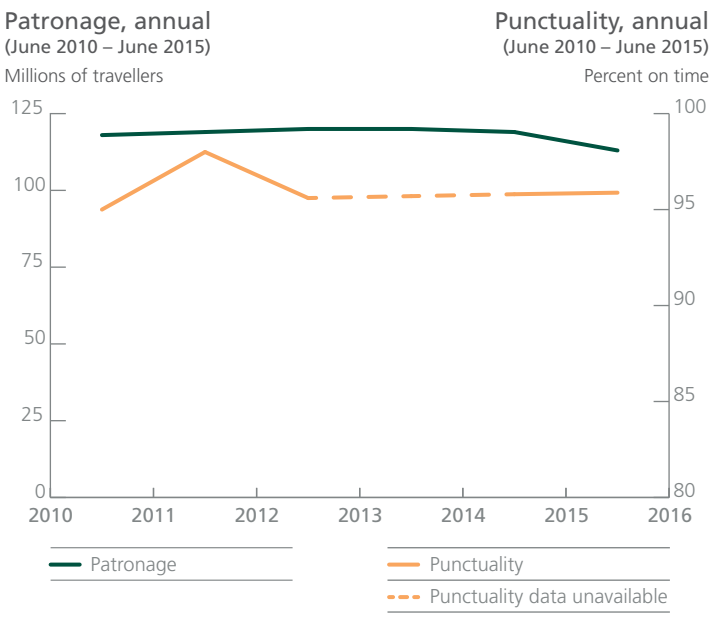
	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	50.4 million	+1.2%	-1.5%
Punctuality**	98.2%	+0.2%	+5.6%
Reliability***	99.8%	-0.0%	n/a

- Brisbane rail patronage grew for the first time in several years
- Punctuality continued to improve

Note: *Includes South East Queensland services
**Citytrain only
***Service standard changed from FY13

Bus

Brisbane Bus* performance metrics time series



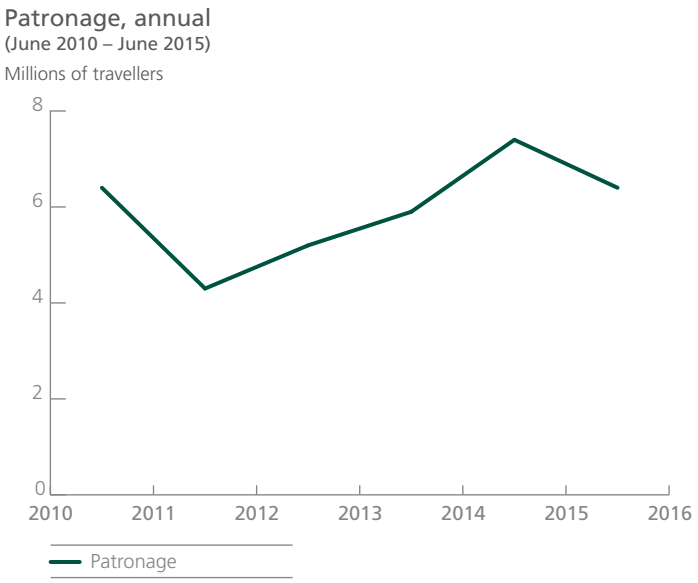
	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	113.1 million	-4.7%	-2.0%
Punctuality	95.9%	+0.0%	+0.2%
Reliability	100.0%	-0.0%	-0.0%

- Bus patronage has been declining in 2015, attributed to mode shift to G: Link light rail services.[6] It is down overall across the last three years
- Punctuality is high and stable, averaging 96% on-time services
- Brisbane bus reliability remains at 100%

Note: *Includes South East Queensland services.
6 Department of Transport and Main Roads Annual Report 2014-15

Ferry

Brisbane Ferry performance metrics time series



	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	6.4 million	-13.6%	-7.3%
Punctuality	n/a	n/a	n/a
Reliability	n/a	n/a	n/a

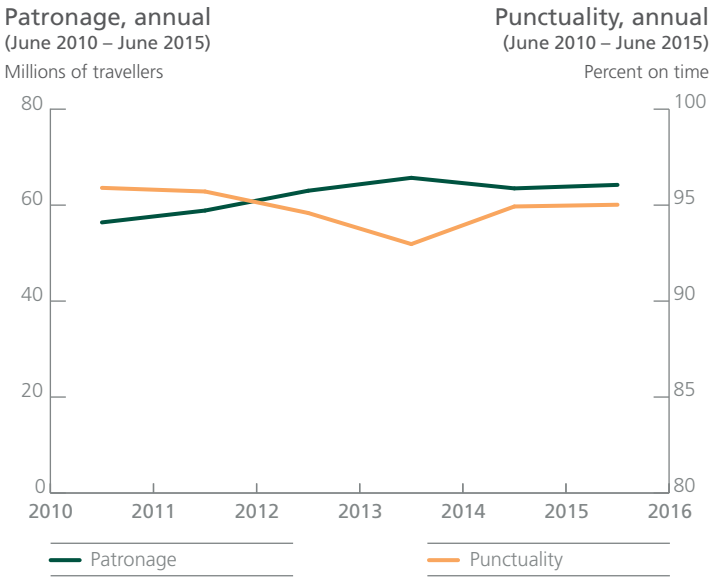
- Brisbane ferry patronage dropped significantly in 2015, after several years of strong growth and recovery after the Brisbane Floods. This is attributed to terminal closures and works and timetable changes[7]

7 Department of Transport and Main Roads Annual Report 2014-15

Perth

Rail

Perth Rail performance metrics time series



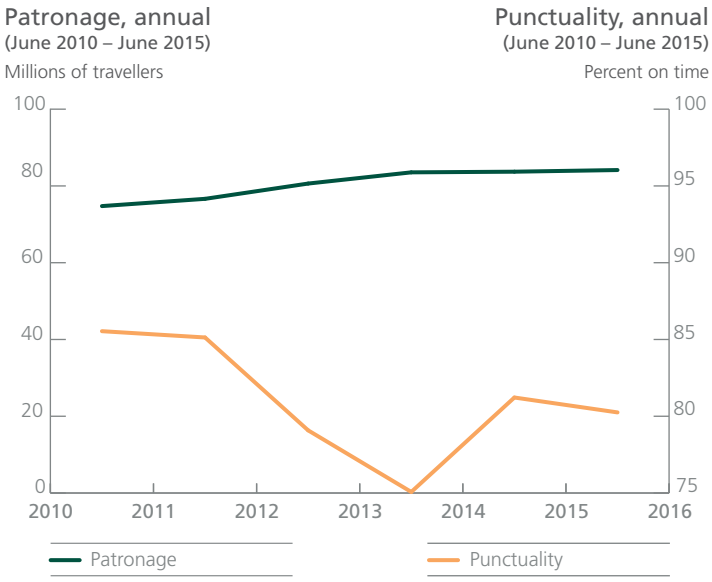
	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	64.2 million	+1.2%	+0.6%
Punctuality	95.0%	+0.1%	+0.4%
Reliability	n/a	n/a	n/a

- Perth's rail system continues to grow steadily. However, while there was a small increase in total boardings in the 12 months to June 2015, fare paying boardings fell 1.2%[8]
- Punctuality is stable at 95%

8 PTA Annual Report 2014-2015

Bus

Perth Bus performance metrics time series

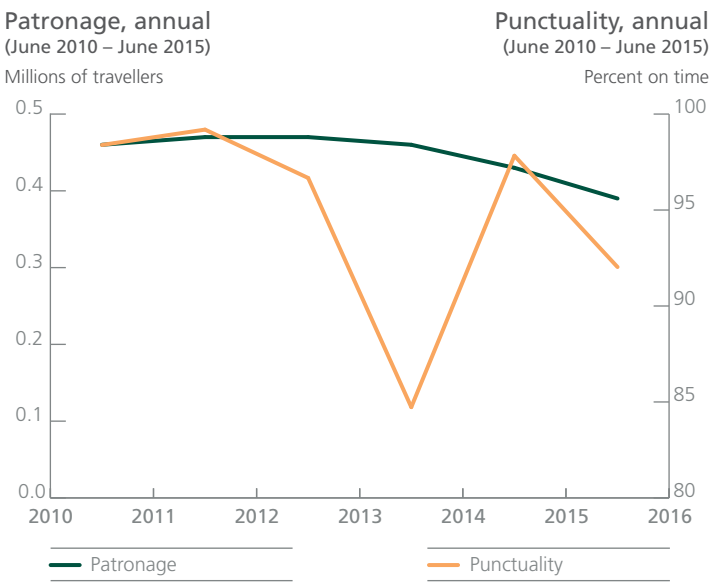


	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	84.1 million	+0.5%	+1.4%
Punctuality	80.3%	-1.0%	+1.2%
Reliability	n/a	n/a	n/a

- Perth's bus system continues to grow steadily
- Punctuality declined somewhat to 80%

Ferry

Perth Ferry performance metrics time series



	June 2015	1 year change CAGR/PPTΔ	3 year annual change CAGR/PPTΔ
Patronage	0.4 million	-9.4%	-6.0%
Punctuality	92.0%	-5.8%	-4.6%
Reliability	n/a	n/a	n/a

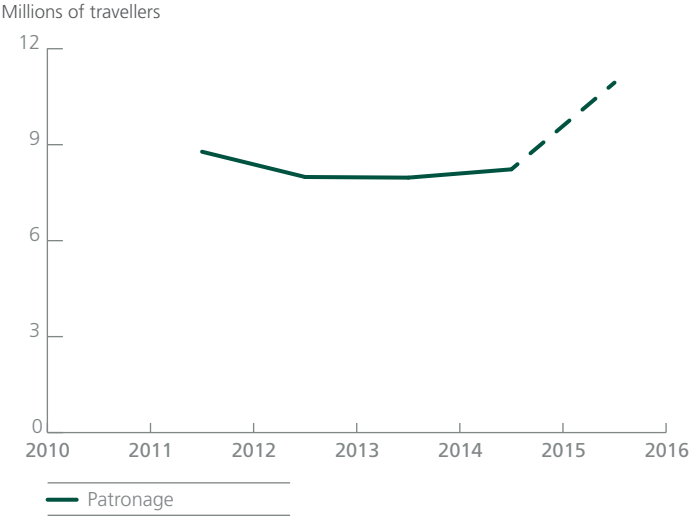
- Perth's ferry service experienced significant declines in 2015, the third year in a row of falling patronage
- Punctuality also declined

Adelaide

Rail

Adelaide Rail performance metrics time series

Patronage, annual, initial boardings
(June 2010 – June 2015)



	June 2015	1 year change CAGR/PPTΔ	2 year* annual change CAGR/PPTΔ
Patronage*	10.9 m	n/a	+1.5%
Punctuality	n/a	n/a	n/a
Reliability	n/a	n/a	n/a

* Initial boardings only

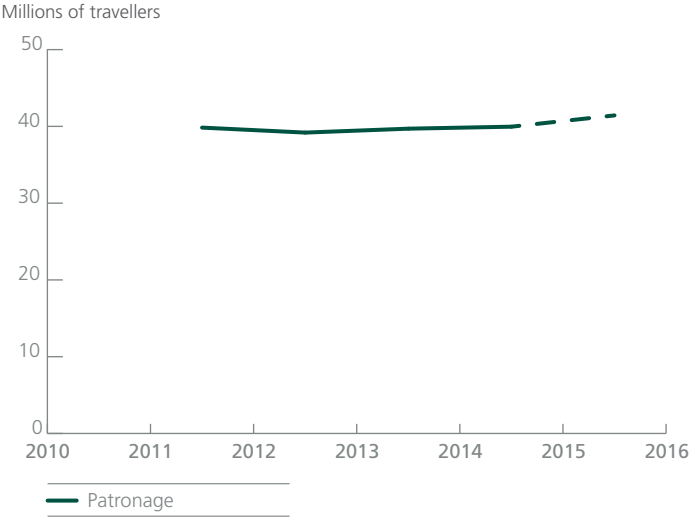
- Limited data is published is published for Adelaide. The FY15 figures include all free boardings (not solely seniors) in patronage data, accounting for the spike in growth in initial boardings
- Patrons made 8.283 million free trips to June 2015, including on the Adelaide Oval Footy Express, City Connector, Free City Tram and Free Jetty Road Glenelg Tram services

Note: Methodology change FY15
*FY2012-14

Bus

Adelaide Bus performance metrics time series

Patronage, annual, initial boardings
(June 2010 – June 2015)



	June 2015	1 year change CAGR/PPTΔ	2 year* annual change CAGR/PPTΔ
Patronage*	41.4 m	n/a	+1.0%
Punctuality	n/a	n/a	n/a
Reliability	n/a	n/a	n/a

* Initial boardings only

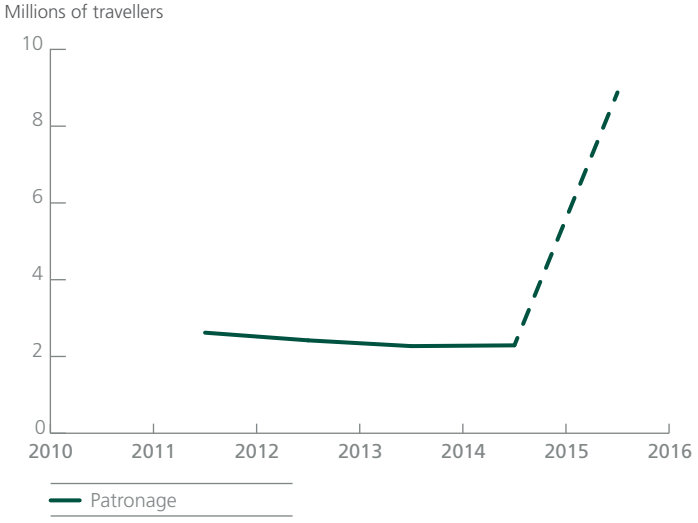
- Initial bus boardings have increased between 2012 and 2014, but year on year comparisons are not possible

Note: Methodology change FY15
*FY2012-14

Light rail

Adelaide Light Rail performance metrics time series

Patronage, annual, initial boardings
(June 2010 – June 2015)



	June 2015	1 year change CAGR/PPTΔ	2 year* annual change CAGR/PPTΔ
Patronage*	8.9 m	n/a	-2.8%
Punctuality	n/a	n/a	n/a
Reliability	n/a	n/a	n/a

* Initial boardings only

- Adelaide FY15 figures include all free boardings (not solely seniors) in patronage data, accounting for the spike in growth in initial boardings
- Patrons made 8.283 million free trips to June 2015, including on the Adelaide Oval Footy Express, City Connector, Free City Tram and Free Jetty Road Glenelg Tram services

Note: Methodology change FY15
*FY2012-14

In the Spotlight
How transport technology will transform the customer experience

Technology is transforming the customer's experience in all forms of transport – from public transport to private cars, taxis and hire cars to boats.

Services such as ride-sharing and other "disruptive" services are springing up with a rapidity and vigour that threatens to leave legislators and regulators, as well as players in existing markets, running to catch up.

And everything suggests it has only just begun. New services and paradigms will continue to emerge, and their take-up escalate.

In this section, we look at the top ten technology shifts that are transforming the transport sector.

Top 10 technology shifts

New technology is rapidly transforming what's possible in public and private transport. The following top 10 shifts have the potential to enable customers to experience transport in a fundamentally new way. Some of these shifts will happen quickly, some will take more time. Transformation will be unpredictable, and in this environment it is important for governments and the private sector to understand how to drive innovation and respond to what will inevitably be a dynamic future.

1. CARDLESS TRANSACTIONS

The last 20 years have seen transport agencies introduce proprietary smartcards - such as Oyster, Opal, Myki, and Go - in transport. The next 20 years could see these smartcards disappear altogether as agencies embrace "open-loop" ticketing, enabling customers to pay for transport directly with contactless bank-issued cards and smartphones. This is already happening in several transport agencies worldwide, such as Utah, London, and Chicago, in which customers no longer have to rely on dedicated, proprietary smartcards to access public transport. This increases convenience of travel for customers, and shifts responsibility for ticketing and fare collection to retail banks.

3. OPEN DATA

Governments collect vast amounts of transport data. Increasingly - in areas such as road and traffic information, and public transport and ticketing – they are starting to share it. Democratising this data represents a significant opportunity for governments to spur innovation, providing the private sector with the raw materials to develop novel products and services and ultimately deliver greater value to their customers.

2. INNOVATIVE COMMUNICATIONS

There is a generational shift occurring in how people use technology to obtain information, make decisions and communicate. People expect more personalised, real-time and dynamic communications, and transport is no exception. However, given the constant flow of non-transport data and information available, it is a real challenge for governments, transport operators and other service providers to cut through this and engage meaningfully with customers. Innovative use of social media has the potential to not only drive customer engagement but also to transform how well governments and operators understand customers.

4. INTELLIGENT VEHICLES

Driverless vehicles will transform mobility. They will change our travel behaviours and expectations, and profoundly disrupt existing transport markets. While it is impossible to predict exactly how things will play out, opportunities and disruptions will emerge across the transport sector. Car ownership, registration, insurance and driver licensing will be transformed, as will the taxi and car hire sectors, public transport and freight and logistics.

Government has a strong role to play given the disruptive power of driverless vehicles as well as the need to ensure that safety and regulatory frameworks are appropriate.

5. INTELLIGENT CHARGING

Technology is increasing the sophistication of how charges and rules for parking and tolling are set to achieve desired policy and commercial outcomes. For example, technology could be used to provide discounts on parking nearby public transport stations to encourage use of public transport; this could even be set on a real-time, variable basis based on road congestion, parking availability and/or public transport utilisation. For the customer, transactions will be increasingly automated and frictionless (fewer surprises, more information and context provided) supported by technology development such as by vanishing cards, mobile wallets and intelligent vehicles.

6. INTELLIGENT JOURNEY PLANNING

With a wealth of new information, customers will have the means to make informed decisions about their end-to-end journey, and governments and operators will have a rich understanding of the customer's travel experience.

Real-time tracking from data sources such as geolocation data, vehicle loads and travel speeds will inform dynamic customer communication systems and proactive customer management. Information will be increasingly:

- personalised (for example, people with a disability receive information on disability access)
- relevant (the customer's GPS and calendar are integrated)
- synchronised (delays, vehicle GPS are integrated)
- multi-modal (combining private transport, public transport, active transport).

7. COLLABORATION BETWEEN GOVERNMENT AND PRIVATE BUSINESSES

Historically, governments have been the main source of information about travel patterns, typically through a combination of ticketing and tolling data, manual counts and observations and surveys. Today, the private sector has a vast wealth of travel-related data that would be invaluable for better understanding customer behaviour and informing transport planning. This includes geolocation data, traffic and congestion information and consumer preferences and attitudes. Government and the private sector will increasingly work together to deliver an improved customer experience and more efficient transport outcomes.

8. THE SHARING ECONOMY

Innovative transport services based on the sharing economy will continue to evolve, creating new flexible capacity and generating trips that would not have occurred otherwise. Adoption of ride-sharing, as well as car and bike sharing, is increasing, although these applications are currently at the margin of commercial viability. It is important that governments consider a more flexible regulatory framework to accommodate how the sharing economy will evolve, particularly in relation to driverless vehicles.

9. SMART ACCESSIBILITY

Technology will enable users with a disability to have access to more relevant information (e.g. larger information screens for visually impaired users, apps that enable barrier-free journey planning) and smarter transport solutions to accommodate their needs (e.g. flexible transport). The travel experience will also become more personalised: for example, customers will use a travel card or smartphone that stores their needs and preferences and operators will provide personalised information to the customer about access to platforms, safety, wayfinding etc.

10. SINGLE GOVERNMENT INTERACTIONS

Customers increasingly able to consolidate their interactions with different government agencies into a single profile or portal, both transport and non-transport. To make this possible, there will continue to be an increase in the sharing of information between government agencies within privacy law constraints. Agency responsibilities will also change in some cases.

The next 10-15 years offers the prospect of more disruption in mobility than we have seen for many decades. Some commentators view the move to autonomous vehicles as being as significant as the shift from horse and cart to motor cars in the early 1900s! What is clear is that mobility will look the same by 2030 and both Governments and the private sector will need to be nimble and innovative to make the most of the opportunities that technology disruption will create.

Methodology & Sources

The key sources used in this report are summarised in the table below. Throughout this publication changes in patronage are presented as a Compound Annual Growth Rate (CAGR) and changes in punctuality and reliability data are presented as a Percentage Point Change (PPTΔ).

City	Mode	Metric	Source	Data Availability	Definition
Sydney	Rail	Punctuality	Transport for NSW (TfNSW) Annual Report; Sydney Trains Performance Data	Annual, FY2010-FY2015 Monthly Jan 2002 – Dec 2015	• Percent on-time running • Based on suburban services arriving within 5 minutes and intercity services arriving within 6 minutes of scheduled arrival time • Not adjusted for force majeure • Measured during AM and PM weekday peak periods
		Patronage	TfNSW Annual Report	Annual, FY2010-FY2015	• All boardings, paid and unpaid
	Bus	Punctuality	TfNSW Annual Report	Annual, FY2012-FY2015	• Percent on-time running • Measured by sample survey at commencement of bus trip
		Patronage	TfNSW Annual Report	Annual, FY2010-FY2015	• All boardings, paid and unpaid
	Ferry	Punctuality	TfNSW Annual Report	Annual, FY2012-FY2015	• Percent on-time running • Based on services arriving within 5 minutes of scheduled arrival time • Adjusted for force majeure
		Reliability	TfNSW Annual Report	Annual, FY2012-FY2015	• Percent of timetable services delivered • Adjusted for force majeure and exempt service
		Patronage	TfNSW Annual Report	Annual, FY2010-FY2015	• All boardings, paid and unpaid
Melbourne	Train	Punctuality	Public Transport of Victoria Annual Report	Annual, FY12-15	• Percent on-time running • Based on services arriving no more than four minutes and 59 seconds after the scheduled arrival time • Metro train services only • Not adjusted for force majeure
		Reliability	Public Transport of Victoria Annual Report	Annual, FY12-15	• Percent of timetable services delivered • Metro train services only • Data prior to June 2011 is inverse of services not cancelled, after which timetables services delivered is reported
		Patronage	Public Transport of Victoria Annual Report	Annual, FY12-15	• All boardings, paid and unpaid

City	Mode	Metric	Source	Data Availability	Definition
Melbourne	Light rail	**Punctuality**	Public Transport of Victoria Annual Report	Annual, FY12-15	• Percent on-time running • Based on services arriving no more than 59 seconds before or four minutes and 59 seconds after the scheduled arrival time • Not adjusted for force majeure
		Reliability	Public Transport of Victoria Annual Report	Annual, FY12-15	• Percent of timetable services delivered • Data prior to June 2011 is inverse of services not cancelled, after which timetables services delivered is reported
		Patronage	Public Transport of Victoria Annual Report	Annual, FY12-15	• All boardings, paid and unpaid
	Bus	**Punctuality**	Public Transport of Victoria Annual Report	Annual, FY12-15	• Percent on-time running • Based on services arriving no more than 59 seconds before or five minutes and 59 seconds after the scheduled arrival time • Not adjusted for force majeure
		Reliability	Public Transport of Victoria Annual Report	Annual, FY12-15	• Percent of timetable services that operate and are completed • Data prior to June 2011 is inverse of services not cancelled, after which timetables services delivered is reported
		Patronage	Public Transport of Victoria Annual Report	Annual, FY12-15	• All boardings, paid and unpaid
Perth	Rail	**Patronage**	PTA Annual Report	Annual, FY10-15	• All boardings, paid and unpaid
		Punctuality	PTA Annual Report	Annual, FY10-15	• Percent on time running • Based on services arriving and departing within 4 minutes of scheduled arrival time
	Bus	**Patronage**	PTA Annual Report	Annual, FY10-15	• All boardings, paid and unpaid
		Punctuality	PTA Annual Report	Annual, FY10-15	• Percent on time running • Based on services arriving and departing within 4 minutes of scheduled arrival time
	Ferry	**Patronage**	PTA Annual Report	Annual, FY10-15	• All boardings, paid and unpaid
		Punctuality	PTA Annual Report	Annual, FY10-15	• Percent on time running • Based on services arriving and departing within 3 minutes of scheduled arrival time

Methodology & Sources continued

City	Mode	Metric	Source	Data Availability	Definition
Brisbane	Bus	Patronage	Translink & Dept. Transport & Main Roads Annual Report	Annual, FY10-15	• All boardings, paid and unpaid
		Punctuality	Translink Tracker Translink & Dept. Transport & Main Roads Annual Report;	Quarterly (Fiscal) Q1 09/10 – Q4 12/15 Annual FY10-15	• Percent on-time running • Based on services arriving within 6 minutes after or 2 minutes before the scheduled arrival time.
		Reliability	Translink customised data	Monthly, Jun 12-Jun 15	• Percent of timetable service completed
	Rail	Patronage	Translink & Dept. Transport & Main Roads Annual Report	Annual, FY10-15	• All boardings, paid and unpaid
		Punctuality	Translink & Dept. Transport & Main Roads Annual Report	Annual, FY10-15	• Percent on-time running • Based on services arriving less than 4 minutes after the scheduled arrival times
		Reliability	Translink & Dept. Transport & Main Roads Annual Report	Annual, FY10-15	• Percent of timetable service completed
	Ferry	Patronage	Translink & Dept. Transport & Main Roads Annual Report	Annual, FY10-15	• All boardings, paid and unpaid
Adelaide	Bus, Train, Light rail	Patronage	Department of Planning, Transport and Infrastructure Annual Report	Annual, FY11-15	• All initial boardings only. Includes all unpaid from FY2015
All cities		Population and GSP / capita	ABS		

L.E.K.

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