# OUT!

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## Introduction

*No. It’s not about the cricket or the ‘cultural’ review.[[1]](#endnote-1)*

*Although a cultural review might be in order.*

*It’s about outer urban transport. OUT for lovers of the tla.*

*And the reason for it: in October Infrastructure Australia released a report on the subject. Sort of. Part of its ‘reform series’ although this time without referring to help from industry (lobby) group Infrastructure Partnerships Australia.[[2]](#endnote-2)*

*The report is the second in the series concerning public transport. The first was a disgrace.[[3]](#endnote-3)*

*This one is a considerable improvement. But as they say in the research classics: more needs to be done. Hence line 2 above.*

## The report

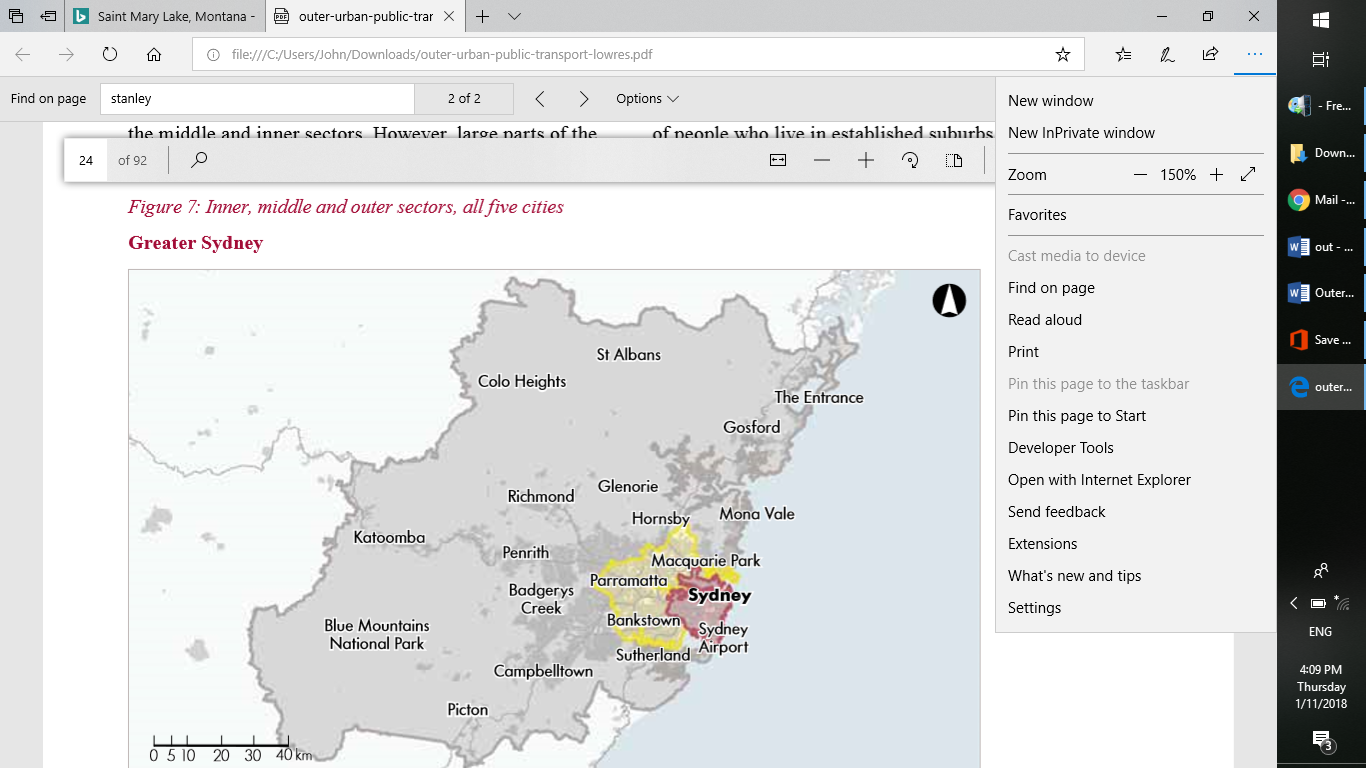
The report was as quickly picked up as forgotten by the media. After blaring that many people in Australia’s big cities suffer – shock horror – transport disadvantage.[[4]](#endnote-4)

How so? It’s mainly in two unusual definitions.

Definition 1:

‘Outer’ urban areas are said to be those an hour or more (commuting) from CBDs. Most of Australia’s major urban areas fall within this definition. Map 1 shows Sydney.

**Map 1: Sydney area**



The report provides good reason for this definition; people commute between these areas and the city centre to work.

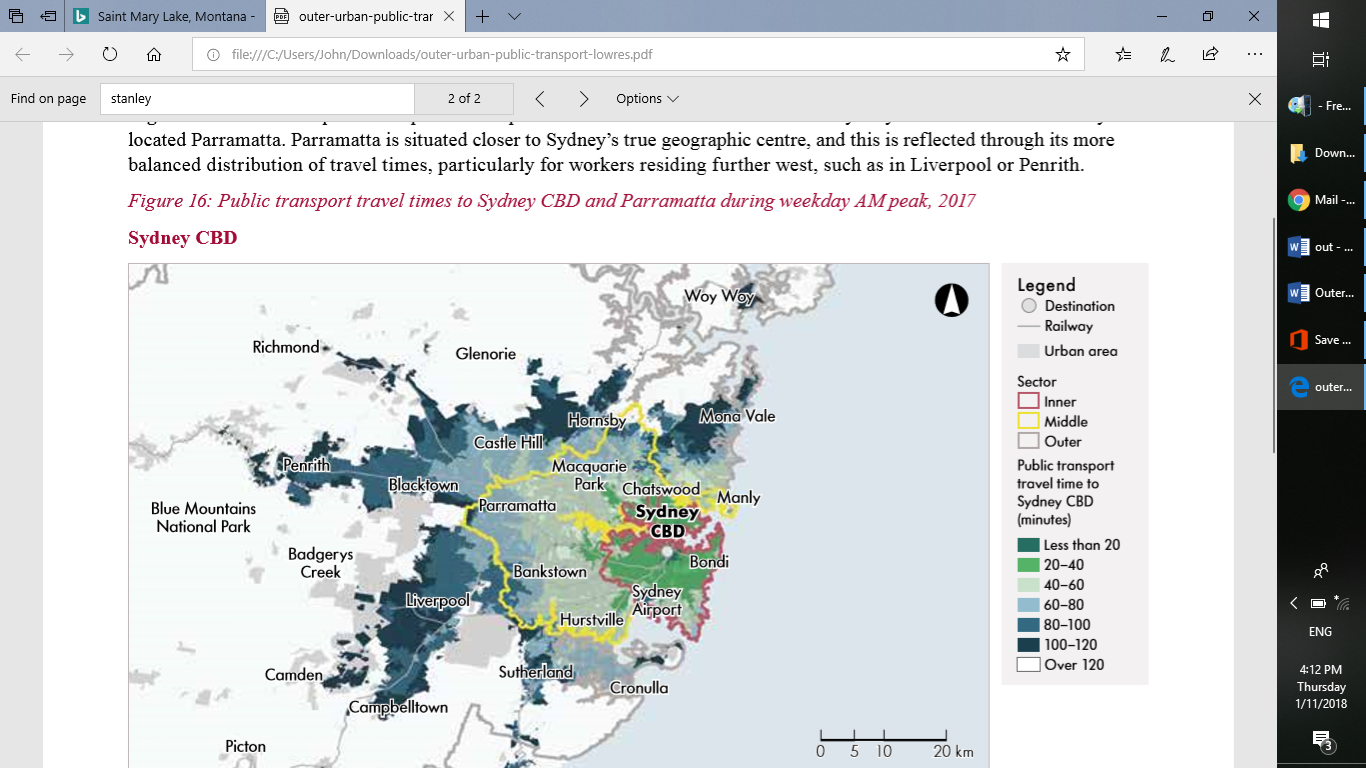
The report claims half the population of Sydney, Melbourne, Brisbane and Perth reside in such areas. Probably an underestimate.

Yes, Prime Minister, The Shire is on the outer even if not the boondocks.

Definition 2:

Transport disadvantage is said to occur when it takes a long time to travel to the CBD possibly due to distance, low service frequency etc. Which is largely coincidental (by definition) with ‘outer’ urban areas. Map 2 shows Sydney.

**Map 2: Sydney transport disadvantage – travel time aspect**



Some of the travel times look a bit strange. The beagle kennel near Campbelltown is a 50-60 minute train ride to town. Not 100 or more minutes. Nonetheless the point made is quite right.

Outer areas largely coincide with this definition of transport disadvantage. The explanation: public transport is relatively costly in these suburbs which tend to:

* be newer and larger in area;
* have lower population densities;
* have fewer public transport (converging) routes.

### Recommendations

Relate to transport services and urban land use. They are made for all Governments and include:

* States should improve transport coordination;
* ‘new modes’ such as ‘on demand’ services should be tried;
* people should be encouraged to transfer between services;
* public transport nodes should be accessible by car, cycling and walking;
* land use planning should be efficient and include employment centres in ‘outer’ suburbs.

## Comments

### An improvement and a surprise

The discussion – much of which dwelt on service planning – and recommendations are unexceptional from a run-of-the-mill transport perspective.[[5]](#endnote-5)

This is a considerable improvement on Infrastructure Australia’s previous report on public transport which made ill-considered and biased comments based on inadequate and flawed research.[[6]](#endnote-6)

However, it is surprising to see such a report from Infrastructure Australia for three reasons:

1. The Commonwealth has no responsibility in this field.
2. The subject matter, as considered, has few if any implications for Infrastructure Australia’s job.
3. (2 above) reflects analytic errors; in fact, outer urban transport has big implications for Infrastructure Australia and major infrastructure projects – but not in outer urban areas.

The above matters are outlined below. The mistakes contribute to Infrastructure Australia continuing its unjustifiable bias towards certain project types.

### Commonwealth

Infrastructure Australia is a Commonwealth organisation.

The Commonwealth has no responsibility for matters in the report.

Yet the report – like previous publications - provides no argument as to why the Commonwealth should have a role in the subject. Nor what should be done to ensure a principled approach – where role reflects responsibility.[[7]](#endnote-7)

Nor does it provide any guidance as to how the Commonwealth should exercise its influence.

Hence it is unclear why the report has been produced.

### Infrastructure Australia’s job

Infrastructure Australia’s job is to advise the Commonwealth Government (see above) on national infrastructure matters.[[8]](#endnote-8)

It is to consider the merit of proposals for major projects for which public monies are sought.

The most efficient public transport for travel *within* outer areas is smaller vehicles e.g. buses. As buses use general purpose roads there is no particular infrastructure issue within outer urban areas, let alone any issue of nationally significant projects.

Yet the report segues between public transport services and infrastructure, with Infrastructure Australia’s interest supposedly arising from a view that the latter is costly.[[9]](#endnote-9)

That view is wrong for infrastructure used by buses. Confirmed by the report’s extensive recitation of bus service planning matters that should be well known and don’t relate to infrastructure.

This is another reason to query why it was produced.

### Analytic problems

The beagle has few concerns with an organisation like Infrastructure Australia producing reports on matters outside its remit provided:

* its remit is being fulfilled; and
* the reports are balanced.

In the present case neither proviso is satisfied:

* Infrastructure Australia’s core business – project assessment – includes unsatisfactory, uncorrected matters such as the assessments of Sydney Metro and WestConnex[[10]](#endnote-10);
* the present report is not balanced. It is biased against commuting.

### Commuting

The report is confused about metropolitan travel and transport systems. Notably between:

* access and mobility; and
* travel within an area and travel across areas.

The report refers to Marchetti’s theory – claiming on-board travel time budgets to be around 35 minutes. Together with reciting the fact that most journeys to work in metropolitan areas are both short and not to central areas it implies commuting is relatively unimportant.[[11]](#endnote-11)

This is the wrong conclusion.

Some other conclusions are not supported by facts.

One example is the idea that passenger interchanging should be promoted in service and system design. However, if anything, Australian commuter interchanging is substantially overvalued in system design as evidenced by studies assuming a much lower ‘transfer time penalty’ than the UK.[[12]](#endnote-12)

Another example is the view that metro is more flexible than suburban rail and can form the basis of a trunk or intercity system. In fact, the opposite is the case, with metro being:

* unusable by other rail vehicle types i.e. less flexible;
* unsuitable for trunk or intercity services where on-board travel exceeds say 20 minutes because of its few seats.[[13]](#endnote-13)

Some other statements are misleading. For example:

* average metropolitan travel times/distances are cited. However, these grossly understate and are irrelevant to commuting[[14]](#endnote-14);
* mode capacity (Table 4) ignores seats although seating is the determining matter for commuting – travel between ‘outer’ areas and centres. The numbers in Table 4 are dubious as well.[[15]](#endnote-15)

These culminate in a mistaken presentation of a ‘hierarchy’ of transport types to promote commuter ‘interchanging’.

Interchanging may be useful within a small area with many public transport services, for example within a CBD. There it might be promoted by intersecting routes e.g. a grid where each vehicle travels only in one direction (say north-south or east-west) and passengers change frequently to move around city blocks. This is more or less the approach for trams in central Melbourne and suggested by Mees for suburbia.[[16]](#endnote-16)

However, the idea is sometimes misapplied to propose termination of commuter trains at the edge of cities - say Central in Sydney - and run only metro or light rail in CBD. Proponents of this view sometimes point to several terminus stations in big cities such as New York or London.

Missing from the argument is the approach in overseas big cities may arise from historical necessity; for example, privately built commuter and long-distance railways in the 19th century terminated near the then centre of cities, centres which subsequently have greatly expanded or moved. And rapid transit or metro trains were introduced in the 19th or early 20th century. Or Paris metro which aimed to *reduce* French access to the city.

The example of Paris since the 1960s suggests relevant capacity is maximised by running electrified commuter trains through the city, rather than terminating at the 19th century edge. This example is being followed by Melbourne and Brisbane.[[17]](#endnote-17)

### Omissions

Some important matters are not mentioned in the report:

1. it is possible for car use to be economically, socially and environmentally superior to public transport *within* outer urban areas. For trips with multiple destinations / stopping points cars can have an obvious advantage for individuals;
2. the marginal benefit of connectivity *to* major centres is likely to be high for outer urban areas. This relates to access rather than mobility (speed). The rule of thumb used by the beagle in Sydney is: places within one-hour travel time are adequately accessible. Interestingly Infrastructure Australia’s report uses one-hour travel to the CBD to define ‘outer’ urban areas;
3. public transport is important for access to central urban areas as road routes approaching centres tend to be congested and parking in centres is difficult. The former is a public policy issue, the latter adversely affects access;
4. regular road congestion near places with little parking indicates traffic is passing through – rather than to – those places. Attempts to decrease travel time to those places worsens congestion without improving access. Given this, the public explanation for WestConnex – to reduce travel time from south-west Sydney to the CBD - is stupid;
5. connectivity of outer with central city areas relates to commuting. Often lack of public transport capacity in central areas is the issue. This is the reason behind rail projects in Brisbane and Melbourne that will add substantial relevant - seating - capacity to the CBD;
6. lack of infrastructure capacity in central areas becomes manifested in other urban areas by a lack of seats, which effectively reduces access from those areas.

Were these matters considered ‘outer’ urban transport issues would appear in a different light:

1. Transport disadvantage primarily relates to opportunities for commuting, not ‘deficiencies’ in local public transport:

* Sydney Metro will increase transport disadvantage through much of the metropolitan area.

1. The case for promoting public transport is likely to be strongest for commuting as:

* commuting allows residents in outer areas to participate in the most valuable metropolitan activities – marginal benefits for individuals and society are highest; and
* use of public transport for such commuting minimises traffic congestion etc. at times and places where road costs – including parking and externalities - are highest.

1. Commuting relates to daily journeys between minor and (a small number of) major nodes for activities such as employment and higher education:

* in Australia the major nodes now tend to be in mid-CBDs and a very few other centres such as in Sydney’s ‘global arc’;
* public transport commuter networks are therefore radial, with each ray passing through several minor nodes.

1. Commuting competes with, but is desirably separated, from general road use:

* competition is on attributes such as speed/frequency, reliability and fares;
* for on-board trips of over 20 minutes seating is necessary;
* the relevant modes are bus rapid transit and commuter rail which raise major infrastructure issues.

1. The primary purpose of increasing public transport commuter ‘service quality’ – non-price determinants of demand e.g. speed/frequency - is to increase the (number of) minor nodes from which there is effective access to major nodes;

* relevant measures include % of population within a certain travel time of a major node
* speed, travel time averages, % of population within a certain travel time of a minor node etc. are not good targets;

1. The first order infrastructure issues – identifying potential infrastructure responses – relate to rules-of-thumb:

* most people will commute up to 1 on-board hour;
* passengers should not exceed available seating more than 20 minutes from the mid-CBD.
* do not ‘pointing’ motorways towards CBDs – in the sense of having intentions or ramps that may allow for more road traffic in CBDs; and
* minimise ‘interchanging’ for commuter journeys between minor and major nodes.

### Other deficiencies

Beyond the above, the report suffers two major deficiencies.

First, Infrastructure Australia failed to (re?) assess **Sydney Metro**.

Its published assessment of Sydney Metro is a travesty.[[18]](#endnote-18)

The NSW Government’s peculiar Sydney Metro – which is neither a proper rapid transit nor commuter rail system – will reduce ‘outer’ urban residents’ access to central areas by:

* creating a break of gauge - which lessens network reach and potential;
* having few seats.

Second, Infrastructure Australia ignored its own earlier suggestion of assessing projects ‘**as if there was road pricing’.** This continues a strange attitude of arguing for, but not doing anything about, the introduction of road pricing.

A range of substantial projects may prove to be white elephants if road pricing is introduced. In the meantime, there is likely to be under - and misdirected investment in infrastructure.[[19]](#endnote-19)

## And a few words on Grattan

Shortly after Infrastructure Australia’s report was published, the Grattan Institute produced some relevant pieces in the Conversation. While rightly aimed against highly suspect policies such as ‘forcing’ migrants to live in certain places and the forthcoming infrastructure pork barrel-fest, they inadvertently strayed into other areas.[[20]](#endnote-20)

They argued the idea of ‘diverting’ population growth to regions is a ‘dangerous fantasy’. And against regional fast rail as a means to do so since:

* post-Federation attempts to develop regional centres had not succeeded and people are reluctant to move away from capital cities;
* people in the capital cities adapt to congestion etc. evidenced by average metropolitan travel times remaining largely unchanged over the years.

### Fast rail nonsense

Indeed, most fast rail proposals for Australia have been nonsensical; attempts to find a home for a project. The worst, advanced by the Commonwealth Department of Infrastructure and Transport, was so bad as to raise suspicions about bona fides.[[21]](#endnote-21)

A characteristic shared by most proposals is a focus on intercapital travel especially business travel; usually on long routes between central Sydney and Melbourne / Canberra.

As travel between these places can be undertaken by airlines, it is assumed rail must match air (and ground transfer) travel times – usually 2-3 hours. This requires rail speeds of up to 400kmh i.e. very high-speed rail such as TGV in Europe or Shinkansen in Japan and few if any intermediate stops.

Until recently, there had been no serious examination of whether rail could bring second-tier cities – with populations of over 200,000 and without air links to capitals - within commuting time (one-hour) of State capital CBDs. The little thought given was technology driven – what opportunities might exist for very high-speed rail – assuming the purpose is to just to reduce travel time. This is the same mistaken pursuit of mobility over access made by Infrastructure Australia.[[22]](#endnote-22)

Relevant cities are Geelong-Melbourne, Wollongong-Sydney, Newcastle-Sydney and Gold Coast-Brisbane. Bringing these within commuter range of the capital does not need very high-speed rail. It does need higher track speeds than at present; perhaps in the 150kmh-200kmh range.

### Regional development and secondary cities

As Grattan suggest, policies to create regional centres have not succeeded as intended.

The 1970s attempts at Albury-Wodonga, Bathurst and Monarto are cited as failures. Some other centres, closer to the major cities or coast, have grown more rapidly.[[23]](#endnote-23)

More recent initiatives include moving a few government personnel to regional towns and household relocation ‘incentives’; these could be charitably described as desultory.[[24]](#endnote-24)

It is inaccurate to claim there has been a considered push to develop big regional centres in Australia. The experience of ports, notably Eden in the 19th century and Newcastle more recently, indicates real policy levers are set to reinforce economic activity in capital cities.[[25]](#endnote-25)

Also noteworthy is attempts to promote regions have centred on towns much smaller than the second tier, much further from the capitals. None are ever likely to be within commuting range.[[26]](#endnote-26)

### Unwillingness to move out?

Claims Australians are unwilling to move away from capital cities are wrong. The much-derided suburban sprawl shows many people are willing to live away from established areas and employment concentrations.

Not all of the sprawl comprises new suburbs. Sydney, Melbourne and Brisbane have suburbs which developed from country towns; Campbelltown in Sydney is an example.[[27]](#endnote-27)

Some argue ‘land releases’ causes sprawl. Perhaps, but there are plenty of industrial and residential land releases throughout regional Australia which have not been taken up.

Rather, the relevant factor appears to be a prospect of being within reach - commuting time - of major employment centres such as capital city CBDs.

Provision of direct rail services has been important to bringing country towns within the metropolitan catchment. This is likely to reflect rail stations causing nodal development and being superior to roads for commuting to centres.[[28]](#endnote-28)

Roads tend to disperse residences and are less amenable to commuting from outer areas – for example because of parking issues in CBDs.

Another point of interest is recent establishment of increased density suburbs with villas, houses on 350sqm and little open space land on metropolitan fringes.[[29]](#endnote-29)

It may be that few people would want to move hundreds of kilometres and hours away from capital cities – especially to inland areas. However, the evidence of urban sprawl is that many are prepared to live within an hour or so of the CBD – to date at least 80km distant.

The arguments put by Grattan, which ignore this difference, need some refinement.

## Conclusion

The topic of ‘outer’ urban transport is more important than the title of Infrastructure Australia’s report suggests. The subject under discussion is not ‘far flung’ suburbia, but a large proportion of Australia’s population.

The report does not do the subject justice. Its partial recitation of orthodoxy, errors and omissions suggest a bias against commuting.

Nor does it help those who really suffer from transport disadvantage because of personal circumstances such as disability or infirmity.

The Grattan Institute’s thoughts do not shed any real light on the matter and prematurely dismiss the potential of second tier cities.

What is needed is:

* clearer differentiation of local travel from commuting, to allow consideration of the range of relevant matters e.g. metropolitan networks, and the desirability of reducing car use to and within major centres;
* robust and open examination of issues such as arising from Sydney Metro;
* consideration of what infrastructure would (not) be needed if there was road pricing;
* a more sensible discussion about faster – not high speed – rail to second tier cities;
* a proper argument for proper Commonwealth involvement.

The basal nature of these matters – which indicate underlying issues of incompetence, prejudice and bias - suggests a ‘cultural review’ of transport policy, akin to that which caused an upheaval in Cricket Australia, is in order.

In the absence of this, half of the population of Sydney, Melbourne, Brisbane and Perth remain vulnerable to whims and nonsense such as:

* advisers and governments ignoring issues as relating only to ‘the boondocks’;
* careless and contemptuous attitudes such as apparent in the joint Commonwealth/NSW Western Sydney Rail study or from the Greater Sydney Commission and Transport for NSW[[30]](#endnote-30);
* Commonwealth flip flopping via edicts such as ‘congestion is a State issue’ or ‘the Commonwealth should ‘stick to its knitting’ which is supposedly road funding[[31]](#endnote-31);
* ‘technological solutions’ for inner urban areas that reduce the effectiveness of networks and thus impede accessibility – Sydney Metro being a current example.

And most of all, xenophobia, excuses for poor driving behaviour or worse dressed up by confected concerns about crowding and ‘congestion’.

J Austen

19 November 2018

1. E.g. <https://www.smh.com.au/sport/cricket/arrogant-and-controlling-cultural-reviews-damn-cricket-australia-20181006-p5086t.html> [↑](#endnote-ref-1)
2. <https://infrastructureaustralia.gov.au/policy-publications/publications/outer-urban-public-transport.aspx?utm_medium=email&utm_campaign=CEO%20update%20-%20Oct%20-%20Outer%20Urban%20Public%20Transport&utm_content=CEO%20update%20-%20Oct%20-%20Outer%20Urban%20Public%20Transport+CID_24e8df233e44b9e2211e173063dbe580&utm_source=newsletter&utm_term=Outer%20Urban%20Public%20Transport%20Improving%20accessibility%20in%20lower-density%20areas&utm_medium=email&utm_campaign=CEO%20update%20-%20Oct%20-%20Outer%20Urban%20Public%20Transport&utm_content=CEO%20update%20-%20Oct%20-%20Outer%20Urban%20Public%20Transport+CID_24e8df233e44b9e2211e173063dbe580&utm_source=newsletter&utm_term=Outer%20Urban%20Public%20Transport%20Improving%20accessibility%20in%20lower-density%20areas> [↑](#endnote-ref-2)
3. <https://www.thejadebeagle.com/weird-scenes.html> [↑](#endnote-ref-3)
4. E.g. <https://theurbandeveloper.com/articles/four-million-australians-dont-have-adequate-access-to-public-transport-> [↑](#endnote-ref-4)
5. The run of the mill perspective typically equates density with destiny – low density meaning little public transport. However, this ignores important contributions from the late Paul Mees: <https://epdf.tips/transport-for-suburbia-beyond-the-automobile-age.html> [↑](#endnote-ref-5)
6. See note iii (above) [↑](#endnote-ref-6)
7. An argument for a – different – Commonwealth role is in <https://www.thejadebeagle.com/commonwealth-urban-transport.html> [↑](#endnote-ref-7)
8. <https://www.thejadebeagle.com/governance.html> [↑](#endnote-ref-8)
9. An example being the weird heading at the report, p.15: *Public transport is expensive to build*. Weird because public transport is not ‘built’ although some of its infrastructure might be. In terms of expense, the page informs of several rail projects, the infrastructure for which is in multiple $billions. It does not mention that a small bus can be purchased for around $0.001bn. [↑](#endnote-ref-9)
10. For deficiencies see: <https://www.thejadebeagle.com/earth-to-canberra-2.html>

    <https://www.thejadebeagle.com/macro-micro-westconnex-and-westies.html>

    <https://www.thejadebeagle.com/wonderland-glory-and-evaluation.html> [↑](#endnote-ref-10)
11. E.g report at box 10. *‘people will have a ‘budget’ of about 1 hour and ten minutes each day (35 minutes per direction). After that, the perceived cost of the journey rises steeply, and so becomes rare quite quickly.’* [↑](#endnote-ref-11)
12. Report p.41, but the averages cited are unsatisfactory. A more thorough and accurate discussion is at <https://atrf.info/papers/2013/2013_douglas_jones.pdf>. [↑](#endnote-ref-12)
13. See, for example: <http://sydney.edu.au/business/__data/assets/pdf_file/0011/148763/ITLS-WP-12-18.pdf> [↑](#endnote-ref-13)
14. See note xi (above). [↑](#endnote-ref-14)
15. For example ‘suburban rail’ (presumably commuter rail) is put at 24,000 per hour per line – a number refuted in <https://www.thejadebeagle.com/dogs-breakfast-for-all.html>; the real capacity may be multiples of this. For bus rapid transit the report claims capacity to be 11,000 passengers per hour, however other reports have more frequently cite 40,000 which may be somewhat high <http://docs.trb.org/prp/13-4702.pdf> [↑](#endnote-ref-15)
16. See note v above. [↑](#endnote-ref-16)
17. Paris is discussed in <https://www.thejadebeagle.com/dogs-breakfast-for-all.html>.

    London reputedly has 14 passenger rail terminals, Moscow 9, New York 5. [↑](#endnote-ref-17)
18. See note x (above). [↑](#endnote-ref-18)
19. <https://www.thejadebeagle.com/submission-to-infrastructure-australiarsquos-national-infrastructure-audit.html>

    <https://www.thejadebeagle.com/infrastructure-principles---august-2018.html> [↑](#endnote-ref-19)
20. <https://theconversation.com/infrastructure-splurge-ignores-smarter-ways-to-keep-growing-cities-moving-105051>

    <https://theconversation.com/australias-dangerous-fantasy-diverting-population-growth-to-the-regions-105052> [↑](#endnote-ref-20)
21. <https://www.thejadebeagle.com/high-speed-rail---a-note.html>

    <https://www.thejadebeagle.com/high-speed-rail---where-to.html>

    <https://www.thejadebeagle.com/higher-speed-rail-why-newcastle.html>

    <https://www.thejadebeagle.com/high-speed-rail-again.html> [↑](#endnote-ref-21)
22. Fraser (forthcoming?) [↑](#endnote-ref-22)
23. <https://blogs.crikey.com.au/theurbanist/2016/11/14/decentralisation/>

    <https://johnmenadue.com/laurie-patton-unpopulate-or-perish-revisiting-the-whitlam-decentralisation-vision-in-a-digital-age/>

    <https://www.smh.com.au/business/companies/decentralisation-is-a-solution-to-population-growth-20180801-p4zux5.html> [↑](#endnote-ref-23)
24. A less charitable interpretation would be pork-barrelling. Examples are in:

    <https://www.abc.net.au/news/2017-04-19/decentralisation-push-for-federal-government-departments/8453816> - ironic given Canberra is not a big city

    <https://www.parliament.nsw.gov.au/lcdocs/inquiries/2435/Final%20report%20-%20Regional%20Development%20and%20a%20global%20Sydney%20-%20Report%2042.pdf>

    <https://www.theaustralian.com.au/national-affairs/state-politics/nsw-regional-home-buyers-scheme-a-280m-failure/news-story/120d7cbff370e0f93475619965e1ae37> [↑](#endnote-ref-24)
25. The 19th century development of the port of Eden, ideally located near agricultural regions and on a deep natural harbour, was resisted by merchants in Sydney and Melbourne e.g. <https://trove.nla.gov.au/work/18212303>.

    Since the early 2000’s there have been concerted attempts to stifle the development and diversification of Newcastle port, presumably due to concerns about its ‘impact’ on Sydney trade; <https://www.thejadebeagle.com/update-on-a-sell-out.html>. [↑](#endnote-ref-25)
26. For example, Campbelltown (see note xxvii below) and Coffs Harbour, NSW. [↑](#endnote-ref-26)
27. Rail line between Liverpool and Campbelltown was electrified 1968. The East Hills line opened 1987 reducing travel time to the CBD by around 20 minutes; to be easily within one hour. Population 1954: 10,000; 1963: 24,000; 1974: 43,000 2016: 160,000. [↑](#endnote-ref-27)
28. Direct services – no interchanging - means passengers do not need to change trains for journeys between the origin station and the CBD; however, there may be interchanges between road and rail at either end, for changes in direction, or within the CBD. The effect of interchanging on public transport use in outer suburbs can be severe; an example is passenger numbers at Macarthur (electric trains) and Menangle (diesel trains) in outer south-west Sydney. The effect can be seen at car parks near stations. [↑](#endnote-ref-28)
29. For example, at Oran Park NSW. Development of suburbs in this area has led to significant increases in train and car park utilisation on the Macarthur line. [↑](#endnote-ref-29)
30. <https://www.thejadebeagle.com/no-deal.html> [↑](#endnote-ref-30)
31. <https://www.thejadebeagle.com/roads-1-tar-baby.html> [↑](#endnote-ref-31)