

The role of public transport in delivering productivity outcomes

Submission to the Senate Standing Committee
on Rural and Regional Affairs and Transport
February 2014



For the better

The role of public transport in delivering productivity outcomes

RAC WA represents the interests of more than 800,000 Western Australians and is a leading advocate on the mobility issues and challenges facing our State. Drawing on our heritage, a key role for the RAC is to act as a voice for our members and as a strong public advocate on the mobility issues which affect Western Australia.

We thank the *Senate Standing Committee on Rural and Regional Affairs and Transport* for the opportunity to provide this submission on the role of public transport in delivering productivity outcomes.

The RAC advocates for safe, accessible and sustainable mobility options and supports increased investment in public transport infrastructure. Congestion is a growing problem impacting on the economic performance of every major Australian city. While better roads that operate more efficiently are critical, the funding of major public transport projects will be key in ensuring cities remain productive and liveable.

Our submission has been structured according to the Committee's terms of reference below:

- the need for an integrated approach across road and rail in addressing congestion in cities, including Sydney, Melbourne, Brisbane, Adelaide and Perth;
- the social and environmental benefits of public transport projects compared to road infrastructure projects;
- the national significance of public transport;
- the relationship between public transport and building well-functioning cities;
- the decision of the Federal Government to refuse to fund public transport projects; and
- the impact on user charges arising from requiring states to fund public transport projects.

An integrated approach across road and rail

Western Australia, like other Australian States, faces an enormous challenge in delivering the infrastructure and services we need to meet the demand being generated by unprecedented population growth and a strongly performing economy.

In 2012 the RAC forecast that an additional one million motorised vehicles would be in Western Australia by 2020. This figure combined with congestion estimated to cost the economy \$21 billion by the very same year, all paint the picture of a State that must build for the future.

It is clear that there is no single solution to fix congestion. A suite of measures are needed – sustained and widespread investment in public transport, better cycling infrastructure, continued

investment in our road network and the evolution of a more compact, consolidated and connected city.

Our road network is, and will always be, an essential part of the urban fabric of Perth City. Car travel and the transportation of freight make a critical contribution to our economy, and motoring will continue to feature strongly in the lifestyles of Western Australians. Despite this, the reality is the road network cannot handle the demand being placed on it. Increasingly, as the cost of congestion bites, more and more people are requiring the flexibility to use public transport to move around our city.

In 2012-13, as was the case with buses, train patronage increased for the tenth year in succession – total boardings increased 4.2 per cent to 65,689m, compared with increases of 7.1 per cent in 2011-12, 4.4 per cent in 2010-11, and three per cent in 2009-10. The Armadale/Thornlie Line handled 9,668m trips, up 4.8 per cent; the Fremantle Line 8,866m, up 2.2 per cent; the Joondalup Line: 17,45m, up 4.5 per cent, Midland Line: 6,689m, up 0.9 per cent and the Mandurah Line: 21,150m, up 4.2 per cent.

These trends are almost certain to continue. The current mode share or number of employed people travelling to work by public transport in Perth is just 10.6 per cent¹, compared to Sydney where 20 per cent of people travel to work using public transport². By the year 2031 Perth's public transport system will be required to carry more than twice as many people as it does now. In fact, public transport will account for 1-in-8 of all motorised trips, 1-in-5 of motorised trips in the peak period, over 30 per cent of peak hour distance travelled, and over 70 per cent of all trips to the CBD³.



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Private car travel accounts for the majority of traffic on Perth's main arterial roads and freeways which also constitute the bulk of the city's Strategic Freight Network. Modal shift from single occupancy car travel to public transport is an essential strategy to keep freight and business services moving through our city.

The second RAC BusinessWise-CCI Congestion Survey highlights the impact of traffic congestion on the profitability and

¹http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/5GPER
²http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/1GSYD
³http://www.transport.wa.gov.au/mediaFiles/about-us/ABOUT_PT_Plan2031_FAQs.pdf

productivity of business. More than one third of respondents believed they had lost existing work contracts due to problems related to congestion. As one business explained, "We get stress and pressure from clients who don't understand that timing can't be given accurately". Seventy-eight per cent of respondents identified a 'loss of productivity' as a key impact of congestion. A further 68 per cent singled out a reduction in staff punctuality.

78% Of respondents to the 2013 RAC Business Wise-CCI Congestion Survey identified a 'loss of productivity' as a key impact of congestion.

Whilst the BusinessWise-CCI respondents supported road investments (86%), intelligent transport technology (83%), better coordination of road works (81%), more than half (57%) of respondents also supported more spending on public transport infrastructure.

Motoring is and will remain integral to the mobility of Western Australians. But with a looming congestion crisis, it's no longer just about the car - it's about choice and as such, the ongoing investment in our road network must be complemented with investment in extending the reach, quality and accessibility of public transport.

Social and environmental benefits of public transport

Good cities need effective public transport. It allows people to interact, to work, to learn and to play, all of which directly impact on health and wellbeing, the economy and the environment. Analysis by the Western Australian Public Transport Authority demonstrated that whilst half of the benefits of the increased use of public transport accrue through lower levels of congestion (Figure 1), substantial social and environment benefits are derived from:

- > Reduced Road Trauma; and
- > Reduced environmental impacts, including greenhouse gases and air, water and noise pollution.

Internationally, public transport projects, for example CrossRail, have been shown to have benefits in terms of Gross Domestic Product (GDP) impacts that outweigh those from 'conventional' economic benefits such as travel time savings and decongestion benefits.

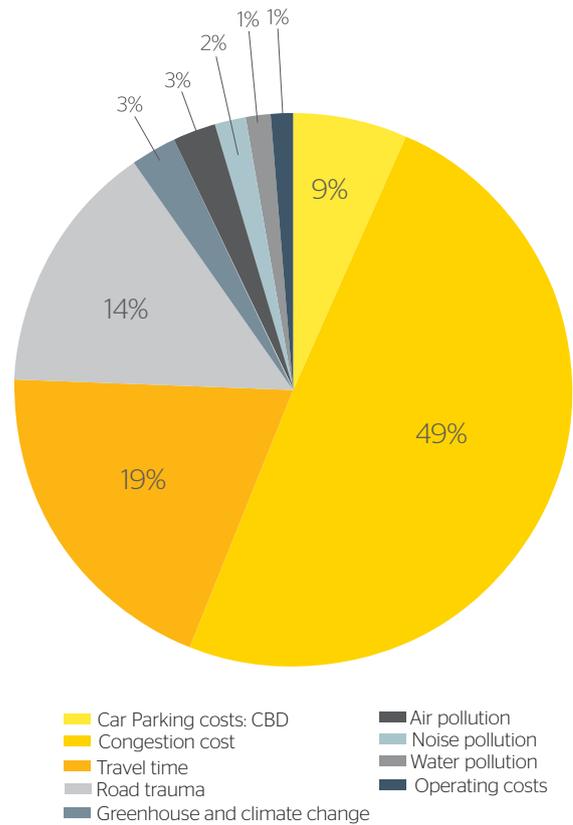


Figure 1 Composition of public transport benefits⁵

The Western Australian Department of Transport calculated that the benefit-cost ratio or the value for money for the community of investment in public transport is 1.8 for 30 years and 2.2 for 40 years, although these benefits were deemed to be a conservative estimate.⁴ Such benefits fare well against accepted benefit-cost ratios for most other urban transport investments.

National significance of public transport

The health of Australia's national economy is inextricably linked to the economic, social and environmental performance of its capital cities and, when looking back across of the past two decades, this applies more so now than ever. In the decade 1990 to 2000, Perth contributed 8.5 per cent of the national GDP, whilst Regional WA contributed 6.0 per cent⁶. In the following decade 2000-2010, Perth contributed 8.3 per cent of national GDP, whilst Regional WA contributed 10.8 per cent. For 2010-11, SGS Economics reported that Perth (20.7 per cent) was the main economic contributor to national GDP, followed closely by Melbourne (20.5 per cent). The main driver in both of these cities was the Professional Services industry⁷, an industry underpinned by access to the labour force and thus one reliant on the presence of an established and reliable transport system, needed to connect people to jobs and services.

⁴Public Transport for Perth in 2031. Department of Transport 2011
⁵Per cent of present value 30 years at 7 %
⁶Australian Cities Accounts. SGS Economics & Planning 2011
⁷http://www.sgsep.com.au/files/GDP_by_Major_Capital_City.pdf
⁸<http://www.crossrail.co.uk/benefits/>

Global consulting firm McKinsey and Company have identified the top 600 cities globally using GDP growth to 2025. These cities are dubbed the "City 600". All of Australia's capital cities are included in this group. McKinsey and Company assert that urban growth is, and will continue to be, concentrated in just a few hundreds cities. By their contribution to global GDP growth to 2025 these 600 cities, currently home to just over 20 per cent of the world's population, will nearly double their combined GDP to generate nearly 65 per cent of world economic growth.

Internationally, cities have identified the link between public transport and productivity for example, it has been demonstrated that London's 100-kilometre CrossRail Scheme will have a national impact and is considered to be a nationally significant project. When Crossrail opens in 2018, it will increase London's rail-based transport network capacity by 10 per cent and dramatically cut journey times across the city. It will add an estimated £42bn to the economy of the United Kingdom.⁸

Relationship between public transport and well-functioning cities

The ABS has released figures indicating Perth's population will overtake Brisbane as Australia's third largest city just before 2030⁹. In addition it is estimated that at least 3.9 million, or a maximum of 5.4 million people, could call Perth home by 2050.



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On average, Perth drivers spend more than three hours a week in congestion, and the social cost of congestion is starting to impact on those aspects of people's lives that allow the community and indeed the city to function in the best possible way. A survey of nearly 700 RAC members revealed congestion results in less time spent with family (46 per cent), less time to do something you enjoy (59 per cent), having to get up earlier (44 per cent) and getting home later from work (36 per cent).

Since most trips taken in peak periods are for work purposes increasing Employment Self Sufficiency and Employment Self Containment¹⁰ in Perth's sub-regions are key strategies to ensure people have the option to work local to where they live, reducing the distance they need to travel.

The RAC recently released *Employment Self-Sufficiency Health Check: Planning for Perth's Congestion Challenges* which discussed how good public transport connections are critical to achieving the level of transport accessibility needed to attract employers to suburban activity centres.



Perth residents currently commute significant distances to access their place of employment/education and compared to other capital cities in Australia, Perth had the smallest proportion of residents living within 10 kilometres of where they work/study. Over one third (35%), of residents in Perth travel between 10 and 20 kilometres, and a further 30 per cent travel in excess of 20 kilometres to work/study¹¹.

The report identifies that only one of Perth's six sub-regions – the North Eastern sub-region is on track to meet targets set by the Western Australian State Government for more localised employment by 2031. Consequently, the lack of rapid transit connections to activity centres is acting as a major barrier to the decentralisation of workplaces. As a result business is being impeded from capitalising on benefits including lower rent costs, access to new workforces and importantly, from enhancing quality of life for employees.

In a similar vein, the Victorian Transport Portfolio has investigated in recent years the relationship between job density, productivity and transport, in particular a type of wider economic benefit known as agglomeration which exists whenever firms become more productive through proximity to other firms. Agglomeration is not currently captured in traditional benefit cost analysis¹².

Transport investment can enable an increase in job density in two ways: by making it attractive for firms to move into areas providing access to a large potential workforce, and by increasing the number of jobs that are accessible to workers.

⁸<http://www.abc.net.au/pm/content/2013/s3899557.htm?site=coffscoast>

⁹Employment self-containment is a measure that looks at the proportion of residents who work locally. Self-sufficiency is the opposite side of the coin. It looks at the proportion of local jobs relative to the number of people in the local labour force.

¹⁰Australian Bureau of Statistics, 2011. Environmental Issues: Waste Management and Transport Use. Cat. No. 4602 0 55 002 Canberra ATC.

¹²http://www.transport.vic.gov.au/_data/assets/pdf_file/0005/74228/Job-density-productivity-and-the-role-of-transport.pdf

A review of studies of agglomeration shows that doubling the job density of an area can result in improvements in productivity in the range of four to 13 per cent, depending on the size, industry structure, and economic make-up of the location studied. This is due to the sharing of infrastructure and inputs; the sharing of ideas and the ability to match skilled workers to jobs.

Federal Government funding for public transport projects

In a welcome move, the Federal Government has signalled a renewed focus on infrastructure investment. In delivering on this commitment it is critical that the Government develops an infrastructure investment program that considers the urgent need to deliver transport infrastructure which enhances productivity outcomes for Australia's capital cities. In achieving this goal it will be necessary to invest in both road and public transport infrastructure as a means of driving growth and generating additional benefits for future generations.

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The opening of the 72km Perth to Mandurah railway, or 'Mandurah Line', on 23 December 2007, marked the completion of Western Australia's largest public transport infrastructure project. A public opinion survey in 2008 showed that six out of ten families who lived south of Perth CBD had, had a family member use the train¹³.

Overall, almost half of Perth's total population reported that a family member had used the railway at least once since it opened and respondents cited the main benefits of the railway as being the reduced need for cars, provision of "speedy" rail transport, the linking of Mandurah and Perth by rail, and the opening up the southern corridor and improve the environment¹³. In the same survey, 88 per cent of respondents answered 'yes' to the question "Is the project worth the money?". Within six months of opening, trips on the Mandurah Line had reached more than 100 per cent of the patronage projected.

Public transport projects formed a key part of RAC WA's key priorities put forward as part of the Australian Automobile Association's Federal Election campaign. The \$2 billion MAX light rail project was identified as one of five top priority infrastructure projects for the State.

The RAC supports light rail because its introduction to Western Australia will add a new dimension to the public transport system and importantly is a clear signal of the significant role public transport is set to play in shaping the future of urban transport in this State. In the 2013 RAC - CCI Congestion Survey, of the 400 business surveyed, 64 per cent of respondents said they support the reallocation of road space for the construction of a light rail network servicing inner city suburbs.



Of respondents to the 2013 RAC Business Wise-CCI Congestion Survey said they support the reallocation of road space for the construction of a light rail network servicing inner city suburbs.

Less than a year following the State Government announcement that the construction of MAX Light Rail would commence in 2016, the timeframe for the project had already slipped to 2019. Subsequently, the Western Australian Government outlined that a heavily constrained fiscal environment and the down grading of Western Australia's AAA credit rating meant the project was deferred until 2022 with no decision on its future until 2017.

The State Government's Public Transport Plan describes the MAX light rail project as "transformational", and it is. MAX light rail would have connected the central northern suburbs to the CBD. The corridor currently lacks high frequency or high capacity public transport services and the likelihood that the corridor's main arterial road, Alexander Drive will be able to service the transport needs of the region's growing population is diminishing. The RAC, through a Travel Time Survey, showed that in 2011 city-bound morning peak hour average travel speeds on the major arterial were as low as 16 kilometres per hour, and only a marginally better 19 kilometres per hour heading in the opposite direction.

The economic benefits that are to be derived from major public transport projects such as MAX impact not only mobility but additionally land use. An analysis of more than 100 studies focusing on the positive impacts public transport has on nearby property values, and the feasibility of capturing a portion of that value, indicated that proximity to public transport often increases property values enough to finance some or all of the capital costs associated with public transport projects¹⁴.

¹³<http://www.lib.uts.edu.au/gta/14226/opening-mandurah-line>

¹⁴Jeffery J. Smith and Thomas A. Gihring with Todd Litman, Victoria Transport Policy Institute, Financing Transit Systems Through Value Capture, 2013 viewed February 2014 <http://www.vtpi.org/smith.pdf>

This finding demonstrates the enormous impact rapid transit projects may have on regenerating or developing land use and ultimately the extent to which kick-starting the construction of public transport projects can lead to economic growth.

The below graph shows the estimated share of Federal spending which will be dedicated to land transport infrastructure in Australia between 2012-13 to 2016-17. The proportion of spending peaks at 1.2 per cent before declining over the forward estimates to less than 0.7 in 2016-17¹⁶.

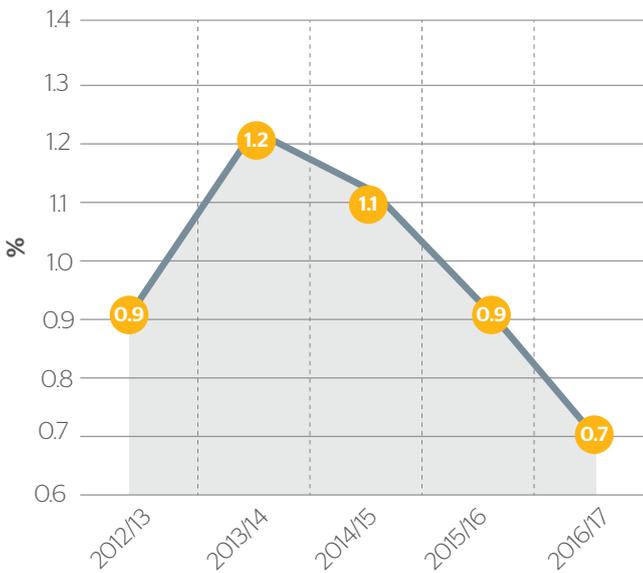


Figure 2 Land Transportation as a Proportion of Total Spending¹⁵

Although it is critical to attract private sector capital for major projects, public sector spending also has a role to play. Funding critical road and public transport infrastructure is a good investment likely to provide long-term public benefits and such investment should be treated as an investment in the nation's future.

Impact on user charges from requiring States to fund public transport

Under the existing system road users pay for access to roads by delivering revenue to governments through a number of State and Federal taxes or charges. State Governments acquire revenue by imposing an access charge on vehicle owners in the form of vehicle registration. Other forms of revenue State Governments derive from motorists include stamp duty and license fees. These charges vary across jurisdictions.

The Federal Government acquires revenue from motorists predominately by imposing an excise tax on fuel and motorists therefore make a significant contribution to the Federal Government's revenue base. However, only a portion of this revenue flows back into public spending on transport infrastructure and currently there is no link between the taxes motorists pay and public investment in transport infrastructure¹⁶.

The fuel excise revenue the Federal Government receives from road users is not earmarked for expenditure on the transport network and instead flows through to consolidated revenue, where the process of directing funding to land transport is complex and lacking in transparency.

Research conducted by the Australian Automobile Association in 2012 found that around 90 per cent of Australian motorists believed that most of the fuel excise revenue raised should be spent on major land transport projects.¹⁷ The reality, however, is that only a fraction of this revenue stream is allocated for this purpose.

In 2014-15 it is estimated that the revenue collected by the Federal Government through fuel excise will total \$15.1 billion. This is projected to grow to \$15.7 billion in 2016-17.¹⁸ However, Federal Government expenditure on land transportation in 2014-15 is estimated to be only \$4.6 billion. The situation is not expected to improve across the forward estimates with spending on land transport infrastructure estimated to drop to \$4.1 billion in 2015-16 and \$3.3 billion in 2016-17¹⁹ (Figure 3).

In Western Australia only 38 cents in every dollar of revenue collected by the Federal Government from motorists is returned to the State for spending on roads .

¹⁵Budget Paper No. 1, Statement 6, 2013-14.
¹⁶2014-15 Pre-Budget Submission, Submission by the Australian Automobile Association Jan 2014
¹⁷Australian Automobile Association, Motoring Report 2013
¹⁸Budget Paper No. 1, Statement 5, 2013-14.
¹⁹Budget Paper No. 1, Statement 6, 2013-14.

The Western Australian State Government however, already spends more on transport than it collects through road user charges such as registration fees.²⁰ To ease the burden of transport funding on the State, a greater portion of the Federal Government’s motoring-related revenue should be dedicated to improving the transport network.

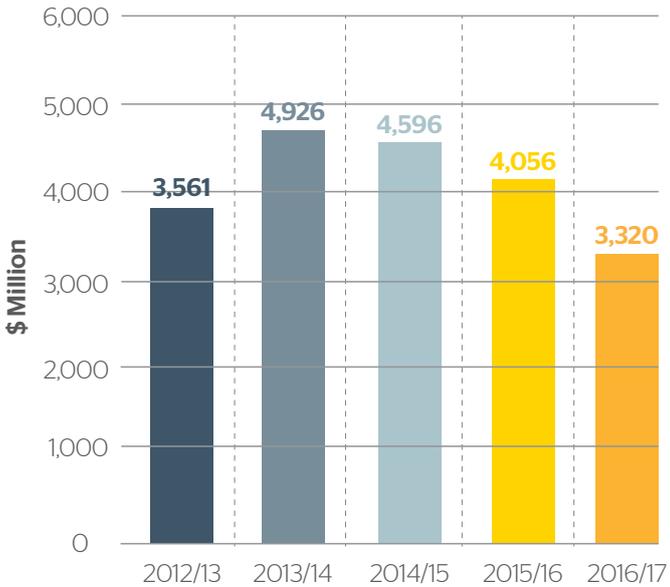


Figure 3 Land Transport Funding²¹

Conclusion

Congestion is harming our national productivity and taking a toll on commuters and families, so much so that in a recent RAC survey two in three West Australians claimed they have no alternative transport options to driving²².

There is a significant gap between our growing appetite for public transport and the capacity of the existing funding approaches to deliver this infrastructure. A balanced solution focused on moving people and products that makes more efficient use of existing and limited road space is needed.

Investment in public transport has been demonstrated to create jobs, and training and business opportunities for companies of all sizes, in all types of sectors. Public transport connects people and puts workers within easier reach of new or existing labour markets; the pressure on existing road and rail networks is relieved and the associated near-station regeneration has the potential to leave a legacy of economic sustainability.

Given the long lead-in and delivery time for major infrastructure projects what we do in the short term – over the next five years, will be crucial.

We trust that this information will inform the Inquiry and thank the Committee for the opportunity to make this submission. In support of our submission we attach the following:

- › *Employment Self-Sufficiency Health Check: Planning for Perth's Congestion Challenges.*
- › *RAC Federal Priorities for Western Australia.*



²⁰Acil Tasman, Motorist Taxation Revenue and Road Spending: Update assessment on the tax collected from road users in WA and spent by Government on roads, RAC WA September 2012
²¹Budget Paper No. 1, Statement 6, 2013/14.
²²RAC Road Pricing Survey 2014

For further information please
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