



wider economic benefits: debunking the myths

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Wider economic benefits (WEBs) are increasingly being included in economic appraisals of major transport projects in Australia. However, the concept of WEBs is not well-understood by the public and is sometimes misinterpreted in media releases, consulting reports and government documents. This paper aims to uncover the common myths of WEBs from a practitioner's perspective.

What are wider economic benefits (WEBs)?

Transport infrastructure often generates economic benefits by improving a community's social welfare. These improvements typically include savings on travel time and vehicle operation costs, as well as other user benefits. These benefits are typically captured in economic appraisals as "transport benefits" using conventional cost-benefit analyses.

Major transport infrastructure can also generate additional welfare benefits over and above the direct transport benefits described above and are dispersed into the broader economy. These benefits are known as WEBs.

Examples of WEBs include improved business productivity, increased tax intake and increased business outputs as a result of improved transport accessibility and/or the "clustering" of households and businesses, as shown in the diagram on the following page.



WEBs are a well-specified term in transport economic evaluations, and include the following:

- Agglomeration impacts.
- Labour market and tax impacts.
- Output change in imperfectly competitive markets.
- Change in competition.

Detailed definitions of WEBs are available at the [Australian Transport Assessment and Planning \(2017\) T3 Wider Economic Benefits \(the ATAP Guidelines\)](#).

It is inappropriate to refer to anything other than the above impacts defined in the ATAP Guidelines as WEBs.

It is not uncommon to see some broader economic benefits such as improved land use and health benefits mistakenly referred as WEBs. While these benefits can be legitimately included in appraisals on top of transport benefits, the term "WEBs" should not be generically applied to those broader economic benefits.



Myth #1: The methodology of estimating WEBs is still under-developed.

The concept of WEBs was first developed by academics in the UK in the mid 2000s. Since that time there has been considerable research around the definition and use of WEBs in the evaluation of transport investment. The Department of Transport in the UK has adopted the methodology of WEBs in major transport appraisals since the late 2000s, most notably for London's Crossrail project.

The detailed methodology, including calculation steps, are well-documented in the **UK Transport Analysis Guidance**, which has been progressively updated since 2006. In Australia, the ATAP Committee has recently released a **draft WEBs guidance**. While the draft WEBs guidance is still at the stage of public consultation, WEBs have commonly been included in major transport project appraisals in Australia, generally following the methodology developed in the UK.

The existence, applicability and approach to enumerating WEBs have been peer reviewed by industry-leading experts. None of this is subject to debate. The biggest remaining challenge of estimating WEBs in Australia is in calibrating evaluation frameworks using local parameters.



Most evaluation frameworks of WEBs were developed in the UK and reflect their local conditions. This issue has been mostly addressed in the latest ATAP draft WEBs guidance.

In short, the concept of WEBs is maturing. The theory and methodology of WEBs estimation have undergone robust peer reviews, where Australian parameters have progressively been developed and adopted by practitioners. WEBs should not be seen as an outcome of a 'black-box' calculation — they are in the position to be more widely used as part of transport evaluation.



Myth #2: WEBs are only estimated to boost the benefit cost ratios of “unhealthy” projects.

All national and state government appraisal guidelines require benefit cost ratios (BCRs) to be presented with and without WEBs which are separately enumerated. This approach provides decision makers with a transparent evidence base to consider the economic case of transport investment. The inclusion of WEBs in economic appraisals can only help with decision-making by providing a clear breakdown between direct and wider economic benefits generated from a transport investment.

Myth #3: Something is wrong when WEBs account for a significant portion of total project benefits

If we trust the methodology of WEBs, the size of WEBs relative to other project benefits should not be an issue. These are still benefits relating to the project and should be included in the evaluation. Typically, WEBs account for 10%–30% of total benefits estimated for major transport infrastructure projects in Australia. Some examples are summarised in the table below.

PROJECT	WEBS AS A SHARE OF TOTAL BENEFITS
Sydney Metro City & Southwest ¹	19%
WestConnex ¹	9%
Melbourne Metro ¹	28%
The Northern Road Upgrade ¹	19%
Canberra Light Rail ²	9%
West Gate Tunnel ³	28%

Source:

¹ Infrastructure Australia Project Evaluation

² Capital Metro Agency, Capital Metro Full Business Case

³ DEDJTR, Western Distributor Business Case

The magnitude of WEBs in transport economic appraisals is driven by a range of factors. These include:

- Expected change in travel cost (e.g. travel time, tolls, public transport fares) for business and commuting trips of all modes of travel across the network;
- The number of people and businesses benefiting from the transport infrastructure investment;
- Population and employment change in response to improved accessibility. For example, a heavy rail link may encourage higher-density development and more business relocated to areas close to new train stations.

Typically, a significant proportion of WEBs is attributed to agglomeration benefits, which are driven by improved business productivity because of reduced travel costs. For example, over 90% of estimated WEBs of the West Gate Tunnel in Melbourne is from the agglomeration benefits.

Note that population and employment change (i.e. land use change) will increase the WEBs as a result of the clustering effect of business and residential locations, as well as an expected increase in more productive jobs. When reviewing the estimation of WEBs, it is important to understand whether land use changes have been assumed in the analysis and whether the analysis was undertaken in accordance with relevant guidelines.

Myth #4: Public transport projects generate higher WEBs than road projects

Not necessarily. As mentioned above, WEBs account for all modes of travel when determining the expected change in travel cost, which is a key driver of improved productivity.

However, transport appraisals that take land use changes into account are likely to generate higher WEBs because some WEBs only appear when population and employment relocation is considered. This is more likely to occur in major rail transport appraisals which tend to attract more people and businesses relocated to areas around rail stations.



Myth #5: A project that is expected to create new jobs and boost GDP growth will also result in higher WEBs

Creation of new jobs and increase in GDP are different to WEBs. They are typically calculated through Computable General Equilibrium (CGE) models, which captures the macro-economic impact of an infrastructure investment as opposed to the direct "welfare impact" captured in the cost benefit analysis. The two things should not be mixed up and cannot be compared to each other.



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Conclusion:

The inclusion of WEBs in economic appraisal of major transport projects in Australia is a worthwhile addition to practice. The major challenge facing WEBs is that the theory and concept behind WEBs are difficult to translate into day-to-day language, hence causing misinterpretation.

We need to recognise that some major transport projects will not only generate traditional transport benefits but also wider economic benefits to the community and businesses. As such, the ongoing development of the methodology of WEBs estimation will only improve the way we capture investment benefits to help inform decision making.

Industry practitioners should be more willing to embrace the concept of WEBs so we can continue to advance and improve the current practice.

By examining some of the common myths surrounding WEBs, we hope to have provided some clarification around what they are and what they are not. Addressing the common myths of WEBs is essential to ensure that we do not ignore the broader benefits that transport investment brings to the community and the value that transport itself creates for the city.