

ITLS Webinar, Monday 11 May, 2020

The Immediate and Long-term Implications of COVID-19 on Transport, Logistics and Lifestyle Questions and Answers

In view of the potential long-term travel behaviour change, is there a need to review the way we forecast travel demand and economic benefits of transport projects? How much lead time do we need to observe long-term behaviour change?

David Hensher: There is a need to review existing modelling systems and see where new models might be considered such as one on distributed work practices that feeds into the traditional travel demand and choice models. We are doing this at ITLS

Following on from the first question, will we value benefits entirely differently? To what extent would this alter the mix of investment?

John Nelson: We will need to consider the influence of distributed working practices on travel behaviour. Also relevant is the need to build in biosecurity into economic appraisal since people will be more concerned about the health risks of using shared transport modes. However, we need to maintain the core public transport system which "liveable" cities require.

In deciding how infrastructure funding is directed, should consideration be given to how much of the funding will be cycled back into the local/state/national economy, and how many local jobs per \$ invested a project will support?

Adrian Dwyer: These factors should already be considered and quantified through regular business case development processes. Ultimately, it's up to governments to use this evidence-base to determine what infrastructure projects they invest in.

We are seeing poor social distancing in large shopping centres etc. Are we sure we don't need a level of enforcement of distancing on PT? People who want to get to their workplaces for a particular start time aren't going to be inclined to wait if a service is "full" (with new reduced capacity).

Cecilia Warren: This really requires coordination across systems - of work, employment and transport. Public transport operators in NSW are currently limiting patronage, particularly during peak times, and are encouraging alternate forms of mobility such as cycling. Workplaces are responsible for how they implement the Safe Work Australia's workplace recommendations (<https://www.safeworkaustralia.gov.au/covid-19-information-workplaces>) for each industry and how they support safety in the workplace which could include more options for employees to work from home. For companies with digitally enabled workforces, this may mean more work from home options, while others may need to make changes to the work environment or change the way they interact with customers.

Low and zero emission vehicles contribute positive benefits to the environment and public health in terms of emissions and new Electric Vehicles (EVs) are some of the safest vehicles ever tested - why should road user charging target these vehicles as a first step? Can we be more innovative and forward thinking rather than just slugging a financial penalty on EV owners when in Australia an EV is already an expensive option for consumers?

Adrian Dwyer: A road user charge is not a financial penalty; it is a way of ensuring EVs have roads to drive on. Soon EVs will make up a significant portion of cars on the road. With fuel excise in rapid and terminal decline, a road user charge on EVs is required to ensure governments can manage demand, maintain the roads we have, and fund future transport capacity. A new charging system need not disincentivise uptake of electric vehicles. Whole-of-life modelling has found that even with a road user charge applied, EVs will still be cheaper to own and run than an internal combustion engine vehicle. If governments see that there are benefits in accelerating uptake of EVs, then they can

set a concessional rate for EVs over a limited period. You can find more information on our proposed reform here - <https://infrastructure.org.au/ruc-for-evs/>

David Hensher: EVs have similar lifecycle emissions to ICVs (including manufacture, etc.). They may be safer for occupants, but not for other street users. They still add to congestion. And they still have high social costs.

The old concerns about road pricing - social equity and privacy - have not gone away. Has any thought been given to these issues as road pricing is again a big topic in the Covid-19 era?

Adrian Dwyer: The way we currently pay for roads is unfair, which is one reason why it needs to be reformed. Increasingly, those who drive internal combustion engine vehicles – particularly those in older, less fuel-efficient vehicles – will subsidise electric vehicle owners. This is not fair or equitable and will have a regressive impact on households by charging the most fuel excise to those who can afford it least. Applying a distance-based charge on EVs will ensure every motorist is making a fair and sustainable contribution to the use of the roads. You can find more information about our paper here - <https://infrastructure.org.au/ruc-for-evs/>

School children make up a high proportion of the peak, and they don't necessarily have a choice around travel times. How best to deal with this?

David Hensher: Imagine if most children had decent, adequately-resourced public schools within walking/scooting/cycling distance, and streets and paths safe enough for them to travel independently to and from them.

Will the forecasted medium/long term reduction in public transport patronage lead to similar reduction in need for Transport Infrastructure projects? Are the speakers concerned with how this may impact the relevance of their organisations/financing of their organisations?

Adrian Dwyer: It is too difficult to predict with any degree of certainty what the future long-term impact on public transport patronage may be. However, if there is a dip in public transport patronage, it will not weaken the case for mass transit projects being delivered in Australia's largest cities.

What continuing impact on long haul road freight post COVID -1'9 do the panel see?

Cecilia Warren: The global nature of supply chains disrupted by COVID-19 will/has impacted the supply of goods to be distributed, while the movement of goods across Australia has perhaps become visible and important to the end consumer as demand for goods to be delivered to the home increases - for some this is simply an increase in 'last mile' delivery where restaurants are delivering to the home rather than inside their premise, however, for others it is business as usual (or increased volumes) of delivery where certain goods become 'in demand'. As state borders reopen, and life returns, the 'new normal' that businesses will experience is in flux, however, the ability to access goods, and the reliance on the freight industry has come to the fore.

Are staggered start/finish times realistic for those commuting distances, say from regional areas like Illawarra 25k commuters (Wollongong) and Hunter (Newcastle)

John Nelson: In principle staggered start / finish times should be applicable to most office and retail jobs. Employers do not usually take account of journey to work distance / time as this is largely a choice made by the employee. However, one would expect a greater degree of flexibility to be applied as we transition out of the pandemic.

What would be the impact of re-regulating school enrolments to local area only, thus reducing the PT burden?

Adrian Dwyer: This is a great question, but one better directed to transport modellers.

How soon should governments bring in a congestion tax?

Adrian Dwyer: Our proposal is for a road user charge on EVs, which is very different to a congestion tax or charge. A congestion charge is the wrong tool for the problem we are trying to solve. A congestion charge does little to counter the most pressing challenge for the future of Australia's transport networks – the imminent and sharp decline in fuel excise caused by the arrival of electric vehicles. It would leave the vast majority of roads with an effective price of zero. This would leave no way to manage demand outside of the major cities and would leave regional roads with an ever-growing funding backlog. Our proposal to introduce a simple distance-based charge on EVs will allow

governments to better manage demand and secure a sustainable stream of funding for our transport networks in the future. This change could be initiated by the Federal Government, by state and territory governments in collaboration, or by any of the state and territories individually. What is clear is that governments need to introduce a simple distance-based charge on EVs before they become a car dealership mainstay. More information about our proposed reform can be accessed here - <https://infrastructure.org.au/ruc-for-evs/>

Apart from a congestion tax, how else can commuters be incentivised not to drive and for employers not to compel their staff not to come into the workplace each day?

Cecilia Warren: Workers who can work from home, or from alternative locations, have a once in a lifetime opportunity to choose (in many cases) how they spend their 'travel time' budget of approx. one hour per day. The value of this time which could be repurposed for exercise, hobbies or more work could be one of the greatest incentives for those who do not enjoy a commute to work which is full of traffic, stop-start motion and / or a lack of control over the environment they are in. Exploring people's preferences is a key element to seeing if there are different ways to think about incentivising where, why and how people travel - other than through a financial penalty.

Focus of seminar has been personal mobility. Given networks, road, heavy rail and air is shared with freight, what do you see as implications for network use and future planning?

John Nelson: I think there is a great opportunity for rethinking road space allocations in light of experience during Covid. Infrastructure needs must be reviewed, and this may mean putting on hold large scale projects and focusing on small investments such as: improved bicycle lanes (building on international experience of safe streets and slow streets); freight distribution capacity; high occupancy vehicle lanes, bus lanes, bus rapid transit.

David Hensher: NAB is reporting a 15% increase in productivity since travel restrictions (fewer 3-hour liquid lunches, presumably). I'd be surprised if we don't see a big shift to working from home and consequent changes in commuting travel demand.

How do we avoid falling into the 'trap' of a future of car-centric mobility? Given that public transport will need significantly more funding to sustain current service levels, how viable will good public transport service levels be?

Adrian Dwyer: Joined up planning across transport, land use, and provision of other services is the key. There is plenty of good work occurring to shape this future across most states and territories. We also need a better way of funding our road system to ensure the whole transport network can operate efficiently. That's why we are calling for a distance-based charge on EVs. A road user charge on EVs will help provide a sustainable stream of funding to build future transport capacity.

How do you see a post-Covid world in terms of road safety? Where we can assume less traffic = less crashes; on the other hand, free flow = high speed = high likelihood of crash severity! Interested to hear impacts of COVID on road safety

Tony Arnold: During COVID, we have seen some spatial changes in travel, with more travel in local neighbourhoods and less travel to traditional centres where work and social gatherings usually take place. We have also seen a drastic fall in the use of transport modes usually used for longer trips (i.e. cars and PT), but many people have been walking and cycling in their local neighbourhoods. With fewer cars on the road, people seem more willing to ride bicycles on the road, but also, car traffic is less-constrained by other traffic which seems to have had some effect on speeds (although anecdotal and probably not across the board). As we return from lockdown, I anticipate that driving will quickly return, but a return to public transport will be more gradual. This means that we could have a lot of congestion. If we still have a lot of people walking and on bicycles (particularly those avoiding public transport), then we these vulnerable road users could be placed at greater risk.

Will Logistics industry finally adopt advanced technology like IoT and Blockchain?

Will that have a downstream impact on the pricing of goods for the customers as Transport and Logistics work on extremely thin margins?

Cecilia Warren: Blockchain and provenance is an interesting area. Sensors and ledgers (smart sensors and blockchain contract) could work together to not only establish authenticity, say of food, but also include triggers to report on temperature control and quality of handling as the food passes along the chain. IoT (Internet of Things) -where we kit out cities, streets and infrastructure, and indeed individual boxes and parcels – holds a lot of promise, albeit reliant on infrastructure investment. We have already kitted out humans with this data – with mobile phones! I think this has relevance not just for logistics but a dual use for passenger transport as well. There are the same issues around privacy, data usage, cyber etc. as with any other connected technology. There are broad issues to determine such as whether this is public infrastructure to be invested in and maintained, or if this is the provenance of private logistics companies as a utility or service to commercialise.

We need to plan for further virus driven stresses in coming years and I expect that, associated with this, physical distancing will lead to a longer-term step change in how we plan office space requirements. This will kill things like hot desking and help drive home working. We now need to take the opportunity to vigorously promote middle urban clusters and the idea of 20-minute neighbourhoods. That is where our investment focus should be.

John Nelson: I agree fully. For example, the nature of our personal networks has changed massively in just six weeks. Given the established influence of personal networks on residential location choice I think it is likely that some of the activities that have migrated online will be maintained. This is the time to push for the 20-minute neighborhood.

Regarding all shared transport services (including pt) that might try to address the biosafety concern of passenger's post-Covid, how can policymaking cope with new design of vehicles, stations and also with marketing and TDM measures?

John Nelson: This is a pressing policy challenge. Fortunately, there is a lot of prior experience available. Sydney's TDM program is travel choices (<https://www.mysydney.nsw.gov.au/travel-choices>). Various cities can build on learnings from the Olympics, managing major construction programs such as Sydney Light Rail and London's Cross Rail and the Post-Sandy reconstruction in New York City. This will require work across sectors and across levels of government.

Could our experience of social distancing change the way we are designing our cities in terms of density, height and access to sunshine and recreation spaces.

Adrian Dwyer: We've heard that governments are already considering how COVID-19 will influence design and planning in the future. Government planning departments are best placed to provide further details.

Should the approach now be to be place-led now rather than being movement-led in our long-term transport projects post-Covid? How is the government's thinking around this new approach?

John Nelson: Probably a combination of both. Now is an opportunity to vigorously promote liveable cities and vibrant "20-minute neighbourhoods". This will require a shift of investment focus.

Post-Covid, given the reduced demand on public transport, how will this impact current and future Government funding on mass transit projects?

John Nelson: It is important that Govt continues to fund PT and mass transit projects. There is compelling evidence that liveable cities need good PT and we need to ensure that our future PT is safe, comfortable and convenient. There may need to be a pause on larger infrastructure projects and in the shorter-term a greater focus on enabling seamless intermodal journeys is also needed so funding should also be targeted to focus on enhancing 1LM solutions. We might encourage more carpooling with trusted persons, as part of MaaS-type solutions.

Adrian Dwyer: It is too difficult to predict with any degree of certainty what the future long-term impact on public transport patronage may be. However, if there is a dip in public transport patronage, it will not weaken the case for mass transit projects being delivered in Australia's largest cities.

As the 'last mile' of goods distribution is most expensive and energy intensive, do you see anything really new on the horizon?

Cecilia Warren: We hear a lot about drones, automated delivery robots etc., but perhaps the technology which is the most novel is 'old' - the bicycle has made a resurgence, including for last mile delivery of food (bringing a range of issues with it) and it is delivering the services and goods requested through digital platforms.

Can Sydney's road congestion challenges can be reframed now that we have a real-life demonstration of what our network is like with reduced discretionary (social) travel demands?

John Nelson: Yes, I think so. We have now seen that wfh can work and we need to explore how that can be maintained, and to address your point we also need to see how we can manage discretionary travel demands. The nature of our personal networks has changed massively in just 6 weeks and I think it is likely that some of the activities that have migrated online will perhaps be maintained. For the foreseeable future we will need to ask ourselves – do I need to travel to fulfil a particular activity?

David Hensher: Indeed, but it will depend on whether social distancing can result in ongoing staggering of working hours and if we can add some amount of WFH we can then really tame congestion

Will social distancing undo all the gains we have made in public transport use (and shift revenue out of PT and back into car parking)?

John Nelson: PT usage unlikely to rebound to pre-Covid levels. Addressing the biosecurity challenge will be imperative and this is a critical role for social distancing on PT – how extreme is this likely to be? This depends on jurisdiction. A longer-term redesign of PT Accommodation space may be required. We must ensure adequate funding for PT.

What can we give the younger generations (teens and 20s) right now that would give them confidence and resources, they need to fully participate in urban life again (such as investing in urban electric bike networks and other low-cost high-benefit transport projects)?

Tony Arnold: Younger generations, who have not had a lifetime to accrue a stable asset base, will be hit hard by this crisis. Many will have lost jobs or had their studies interrupted and will have to make up for lost time. The availability of transport options that are cheap and effective will be key for these younger people and for others who have struggled financially during the crisis. Cycling and other micro-mobility options such as electric bicycles and scooters could help to provide a lifeline for these people, but it will be important that safe and convenient infrastructure is available to connect people to economic centres. It is therefore important to invest in separated bicycle paths and to repurpose local streets as quiet ways that prevent drivers from using them as rat-runs.