

Covid-19 Long Term Travel Impacts Study EARLY FINDINGS (Updated)

Prof Graham Currie FTSE, Dr Taru Jain, Laura Aston
Public Transport Research Group
Monash Institute of Transport Studies
Monash University, Australia



Agenda

Lessons from Literature

Research Approach

Interview Results

Macro/Meso Observations

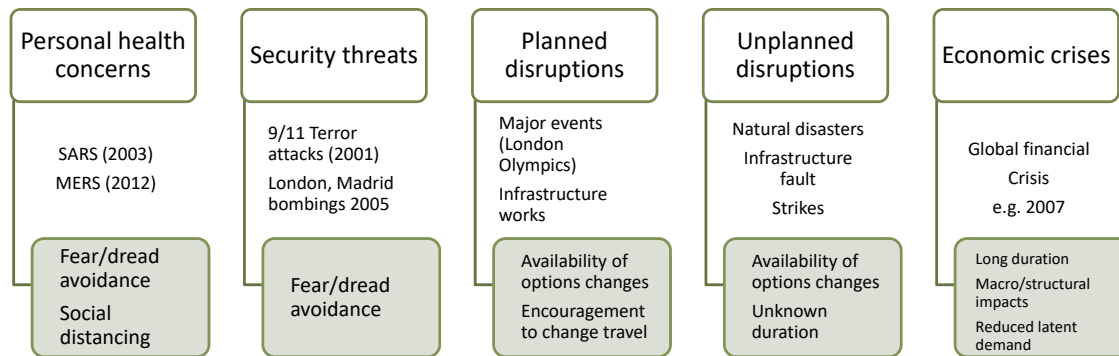


Most travel behaviour [research] is habitual – but research has measured how DISRUPTIONS affect short and long term travel ; much of this is relevant to understanding Covid-19 Impacts

1. Evidence – Major Disruption Impacts on Long Term Travel

- Humans like routine! We ignore or undervalue alternatives that aren't habitual (Goodwin 1977).
- Disruptions cause a routine to be broken and alternatives to be discovered or re-evaluated more rationally
- When public transport is compromised, most riders shift to private car (Nguyen-Phuoc et al. 2018, Exel and Rietveld 2001)

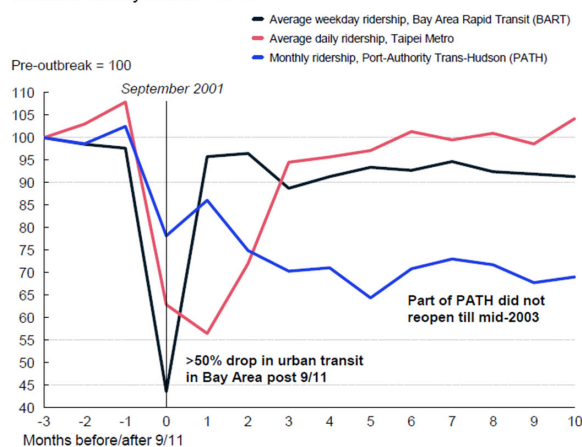
Disruptions Explored in Travel Behaviour Research



SARS/9-11 Safety shocks had big transit ridership impacts but recovery within 3-6 months of crisis start – no suggestion of residual long term fear impact (but these events were relatively short term)

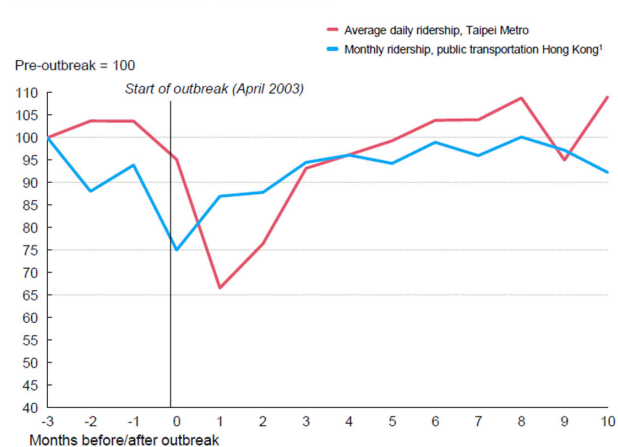
Impact of historical crises on urban transit ridership

Effect of safety crises – 9/11



1. Evidence – Major Disruption Impacts on Long Term Travel

Effect of health crises – SARS 2003



1. Includes various modes of transportation, such as bus, rail, and ferry; does not include taxi

Source: Bay Area Rapid Transit, Taipei Metro, New York State Open Data (data.ny.gov), Hong Kong Census and Statistics Department

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Next Steps



A NEW framework has been developed to explore COVID-19 DISRUPTION and how it might impact travel – using the 4 stages of Covid-19

Pre-Covid-19
Travel

Covid-19
Shutdown

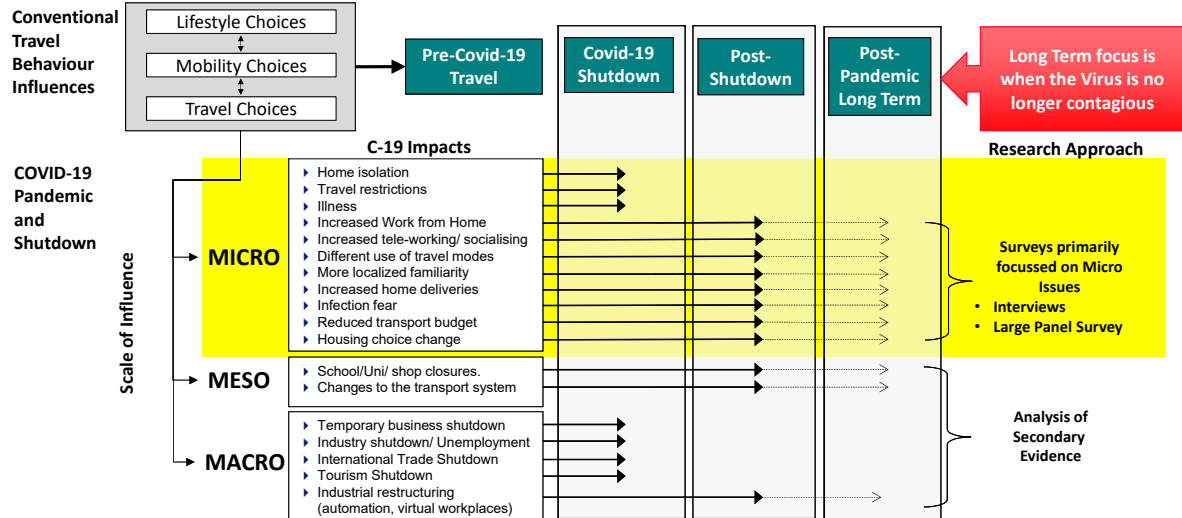
Post-
Shutdown

Post-
Pandemic
Long Term

Long Term focus is
when the Virus is no
longer contagious

Impacts are explored at three levels; behavioural research focusses on the MICRO scale using surveys ; MACRO and MESO effects are explored using secondary evidence

The 'Monash' Framework - An Integrated Framework of Factors Influencing Travel Behavior Before, During and After the Covid-19 Crisis.



Note: This framework is developed by the research team from a review of previous research literature and also from a workshop with staff from the Victorian Department of Transport

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Survey Results

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Online interviews explored personal experiences of Covid-19 on travel/activity and self reported expectations of long term impacts - for a sample frame designed to assure diversity/coverage

C-19 Travel Impacts – 1. Online Interview Survey – Shutdown Phase

- Objective:
 - provide qualitative detailed narratives of how C-19 shutdown has impacted the lives of respondents and to provide inputs to long term forecasting of impacts.
- Aims:
 - a. Understand personal experiences of C-19 Shutdown on life, work and travel – notably differences between pre-shutdown and shutdown (in their words)
 - b. Ask for respondents personal views on how life, work and travel might change in a post-C-19 shutdown – will anything have changed? (in their words)
 - c. Explore specific issues which might affect long term travel with respondents (in their words)
- Approach
 - Targetted 18 interviews - 40 mins - online/by phone

Table 1 – Sample Frame – Online Interviews

Personal Income	Regions of Melbourne								
	Inner			Middle			Outer		
	Age			Age			Age		
	Low*	Medium	High	Low	Medium	High	Low	Medium	High
Low	1 ²	-	1	1 ²		1	1 ²		1
Medium	1	1 ²		1	1 ²		1	1 ²	
High		1	1 ²		1	1 ²		1	1 ²

*No surveys are undertaken of anyone aged under 18

²Respondents who used Public Transport in Melbourne equal to and also more frequently than 1-2 days a week

Completed in March/April 2020

Post-Pandemic; EVERY respondent said they would do activities and travel the same way they did Pre-Pandemic

C. Post - Pandemic

How do you expect what you do and how you get around will change when the virus has gone?

Go back to normal

No get back to normal

Will drift back into same as we used to

I'll travel by public transport again

Not much change

Go back to normal

Go back to normal

Just go back to normal

It will all be the same; don't expect to change anything

Will soon go back to how it was

Expect it will go back to normal

Go back to how it was before the virus came about

Note: Yellow boxes report specific answers from a respondent in their own words

Post-Pandemic; EVERYONE using public transport Pre-Pandemic said they would use public transport Post-Pandemic; Infection concerns remain BUT don't influence expected travel

D. Exploring Specific Long Term Impact Issues

Post Pandemic will you use public transport?

Yes

Yes

Yes no problem with it

Yes will use public transport

Yes I would

Im not scared to use public transport ; I use trams even now

Yes

See no reason why not; yes

Yes I have no choice

D. Exploring Specific Long Term Impact Issues

Post Pandemic will you have concerns about infection on public transport?

Majority – No concern – some noted concern

No more than usual; we have the annual flu concern but not a problem

A little apprehensive but no not real concerns; have to have a bit of confidence when things go back; ill be careful; get a flu shot

As long as risk has gone ill be ok

Note: Yellow boxes report specific answers from a respondent in their own words

The online panel survey is exploring self reported travel behaviour and future expectations of travel with a large (2,100) representative sample designed to forecast total travel impacts on Melbourne

C-19 Travel Impacts – 1. Online Interview Survey

- Objective:
 - provide a representative sample of evidence on how the C-19 shutdown will impact the activity and travel behaviour of Melbourne residents in the long-term.
- Aims:
 - a. quantify impacts of C-19 shutdown on activity and travel – between the Pre-shutdown (Stage 1) and the Shutdown (Stage 2) Periods
 - b. ask respondents to self-report likely long-term effects of C-19 on their activity and travel. This includes the 3. Post Shutdown Stage and 4. The Post Pandemic Stage.
 - c. explore if specific issues which might affect long-term travel might act to influence their future activity and travel choices.
- Approach
 - 2,100 sample - 20 mins questionnaire – online panel survey

Part 1 Sample – Post Shutdown 1 (to 7th July) = 853
 Part 2 Sample – Shutdown 2 (recommence July 15th) = 1,248

Preliminary Results

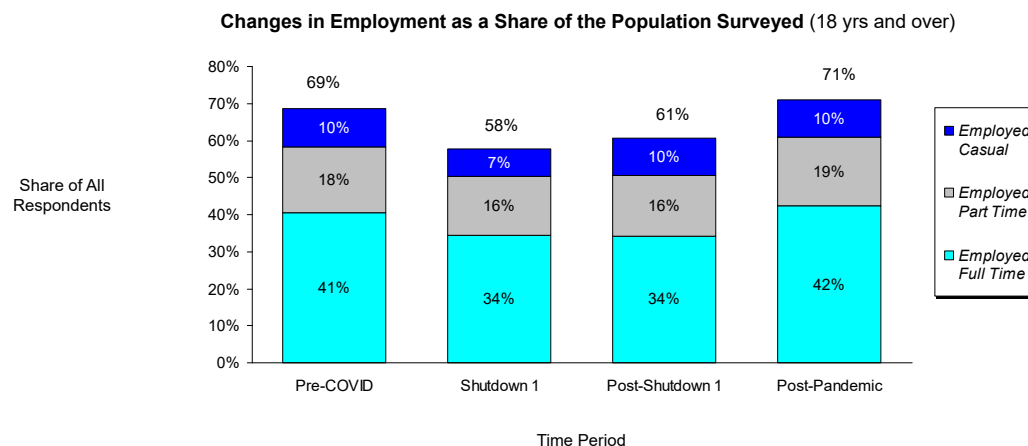
INNER MELBOURNE (n=700)					
Age Group	Annual Personal Income, Before Tax				Total
	Nil Income	Less than	Between	More than	
	Target	Target	Target	Target	Total Target
18-29	53	96	83	16	248
30-44	12	43	86	79	220
45 and over	12	89	62	69	232
Total	77	228	231	164	700

MIDDLE MELBOURNE (n=700)					
Age Group	Annual Personal Income, Before Tax				Total
	Nil Income	Less than	Between	More than	
	Target	Target	Target	Target	Total Target
18-35	37	73	92	36	238
36-54	17	43	87	90	237
55 and over	18	107	64	37	226
Total	72	223	243	163	701

OUTER MELBOURNE (n=700)					
Age Group	Annual Personal Income, Before Tax				Total
	Nil Income	Less than	Between	More than	
	Target	Target	Target	Target	Total Target
18-35	26	87	97	24	234
36-53	15	64	101	56	236
54 and over	18	122	65	25	230
Total	59	273	263	105	700

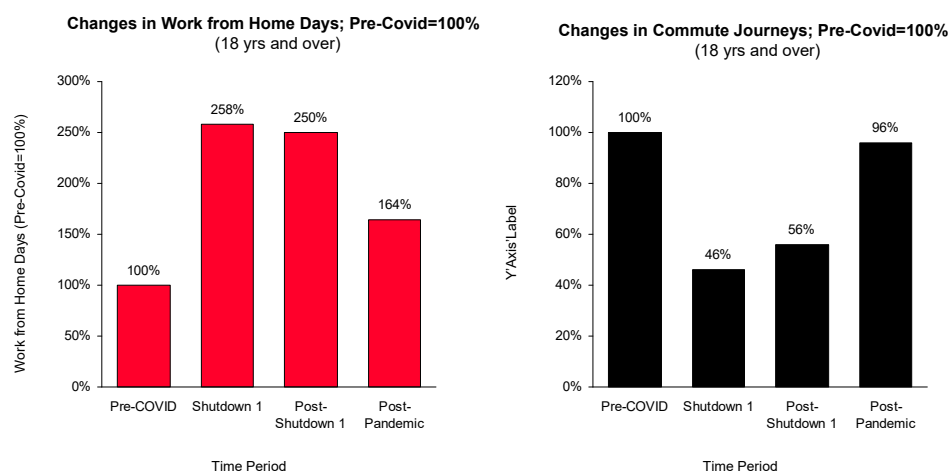
GRAND TOTAL					
Age Group	Annual Personal Income, Before Tax				Total
	Nil Income	INCOME 1	INCOME 2	INCOME 3	
	Target	Target	Target	Target	Total Target
AGE GROUP 1	116	256	272	76	720
AGE GROUP 2	44	150	274	225	693
AGE GROUP 3	48	318	191	131	688
Total	208	724	737	432	2101

PRELIMINARY UNWEIGHTED results – imply shutdown/post shutdown employment decline but a return to work post pandemic



(1) Monash – Long term impacts of Covid 19 on travel research – Part 1 of the Online Panel Survey – Phase 1; July 2020
 (2) Sample is preliminary and unweighted raw sampling data

PRELIMINARY UNWEIGHTED results – shutdown/post shutdown WFH increases; but no substantive change in post pandemic journey to work



Note: 41% of workers did not work from home during shutdown 1

(1) Monash – Long term impacts of Covid 19 on travel research – Part 1 of the Online Panel Survey – Phase 1; July 2020
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Lessons from Literature

Research Approach

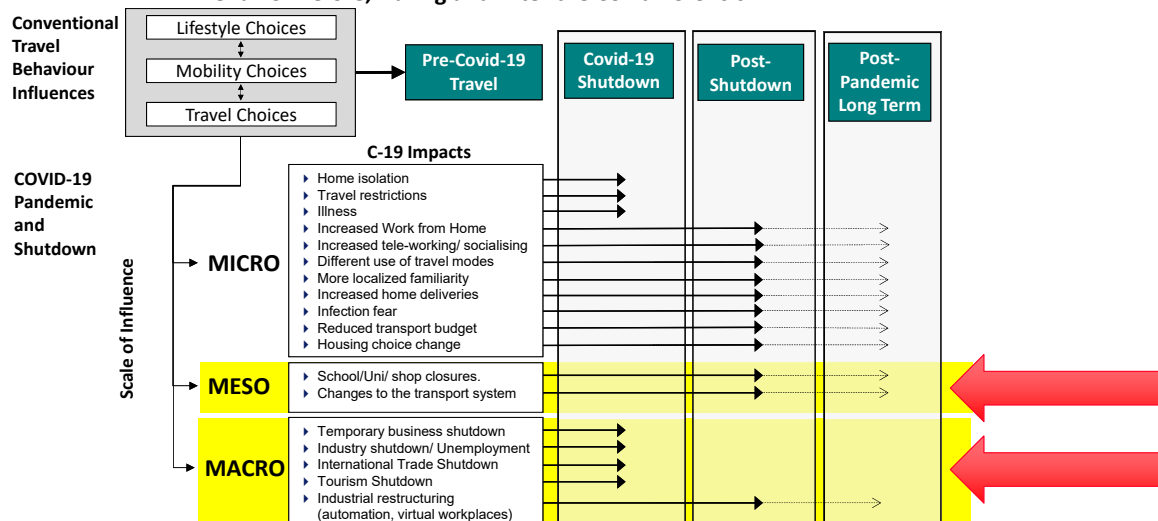
Interview Results

Macro/Meso Observations



Observations provide Macro and Meso Long Term (Post Pandemic) Impact estimates based on analysis of demographic, migration, economic and transport secondary data

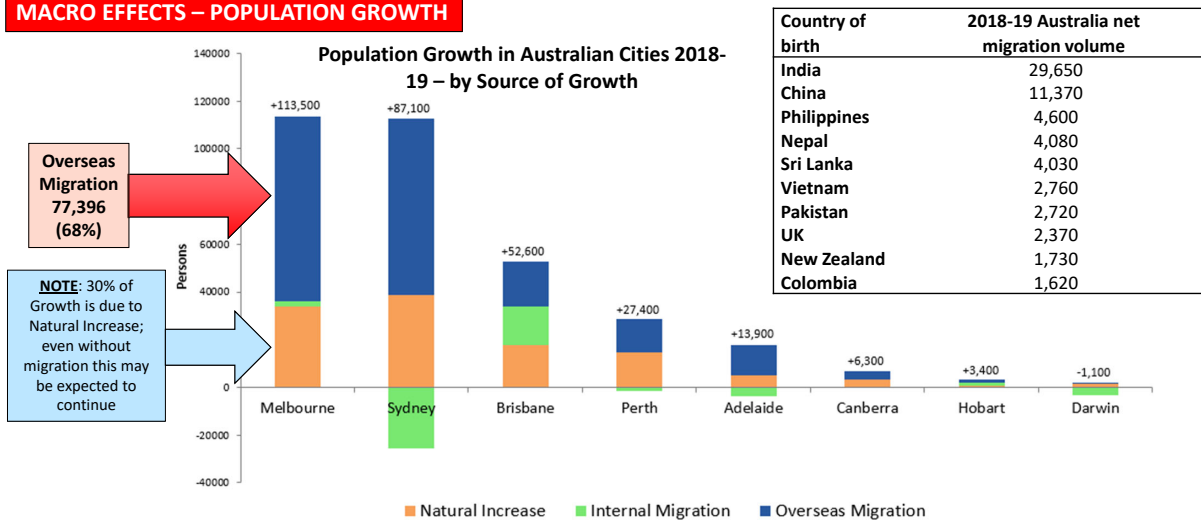
The 'Monash' Framework - An Integrated Framework of Factors Influencing Travel Behavior Before, During and After the Covid-19 Crisis.



Note: This framework is developed by the research team from a review of previous research literature and also from a workshop with staff from the Victorian Department of Transport

MACRO IMPACT POPULATION GROWTH -Pre-Covid Melbourne growth was driven by immigration (mainly from India, China etc) caused by the relative popularity of Australia as a place to work/live

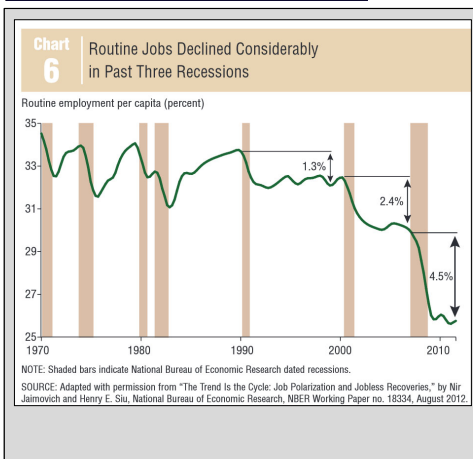
MACRO EFFECTS – POPULATION GROWTH



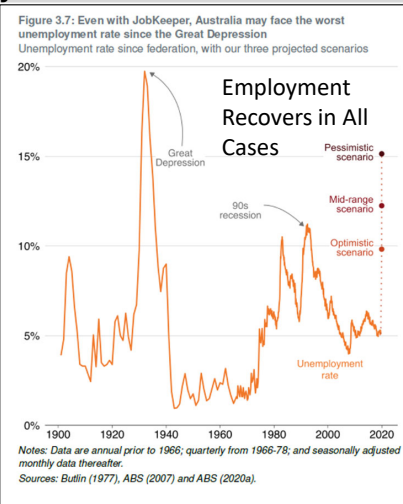
Australian Bureau of Statistics 2020, Net overseas migration by Country of birth, State/territory by Reference period - Financial years, 2004-05 to 2018-19, 3412.0 - Migration, Australia, 2018-19, accessed 10 June 2020

MACRO IMPACT EMPLOYMENT - Historical shocks have increased already declining unskilled work ; but shows a recovery in total employment in all cases – a decade recovery timeframe is likely

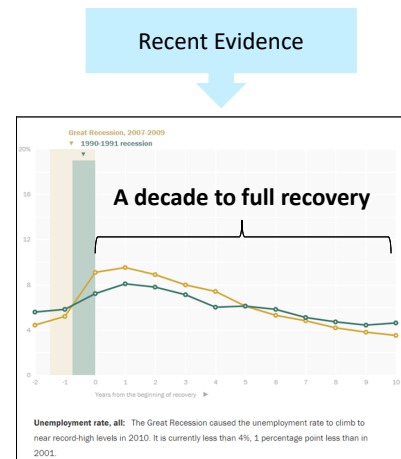
MACRO EFFECTS - EMPLOYMENT



<http://www.dallasfed.org/assets/documents/research/eclett/2014/el1405.pdf>
Source: Prof Simon Wilke Dean, Monash Faculty of Business and Economics



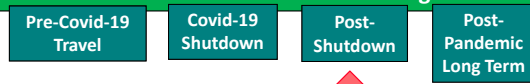
Source: Coates, B., Cowgill, M., Chen, T., and Mackey, W. (2020). Shutdown: estimating the COVID-19 employment shock. Grattan Institute.



Source: RAKESH KOCHHAR AND JESSE BENNETT (2019) 'Two Recessions, Two Recoveries Compare the two longest episodes in U.S. history with our interactive' Pew Research Centre, Social and Demographic Trends Dec 31 2019.
<https://www.pewsocialtrends.org/essay/two-recessions-two-recoveries/> last accessed May 2020

**Post Shutdown – we need to find a new way to manage 51% of all travel to central Melbourne –
Remode, Reduce and Renorming and how long it lasts might affect long term travel impacts**

MESO EFFECTS – Adjustment to Post Shutdown Travel forced by Social Distancing



Post Shutdown – Infection Still Around

Social Distancing Required

Public Transport Runs at 10-15% Capacity



Source: WSP – Public Transport and COVID-19, 2020

Commute To Work – City of Melbourne (000)

	Pre-Covid		Covid – Post Shutdown
Public Transport	220	57%	22
Drive a Car	117	30%	117
Walk	22	6%	22
Bike	15	4%	15
Car as Passenger	11	3%	11
Other	6	2%	6
	385		385
Work from home	9		9

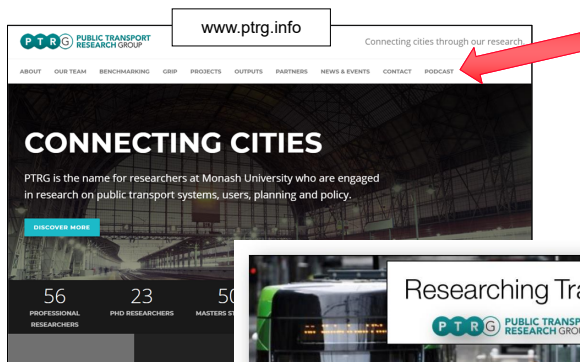
198?
How can these commuters work

Remode or Reduce could create Renorming influencing long term travel

Source: ABS Census Journey to Work 2016 – Travel to the City of Melbourne

JTW excluding 90% of PT users who cannot travel due to social distancing

A more detailed discussion of these findings is presented on the RESEARCHING TRANSIT podcast released Monday 25th May



Long Term Impacts of Covid-19 on Travel

Released Monday 25th May