MONASH University

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WCTR SIG F1 & AUM Webinar

Long term/post-pandemic impacts of COVID-19 on commuting in Melbourne, Australia

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PTRG PUBLIC TRANSPORT RESEARCH GROUP

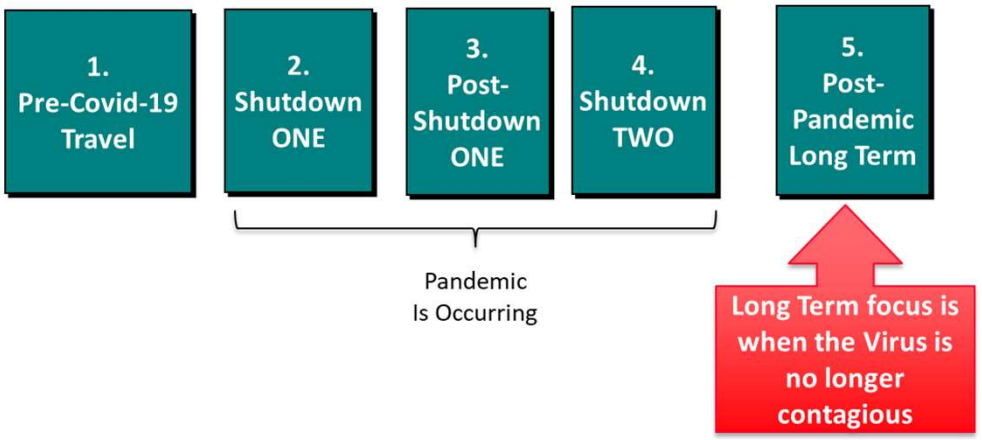
GROUP OF EIGHT AUSTRALIA

MONASH INSTITUTE OF TRANSPORT STUDIES

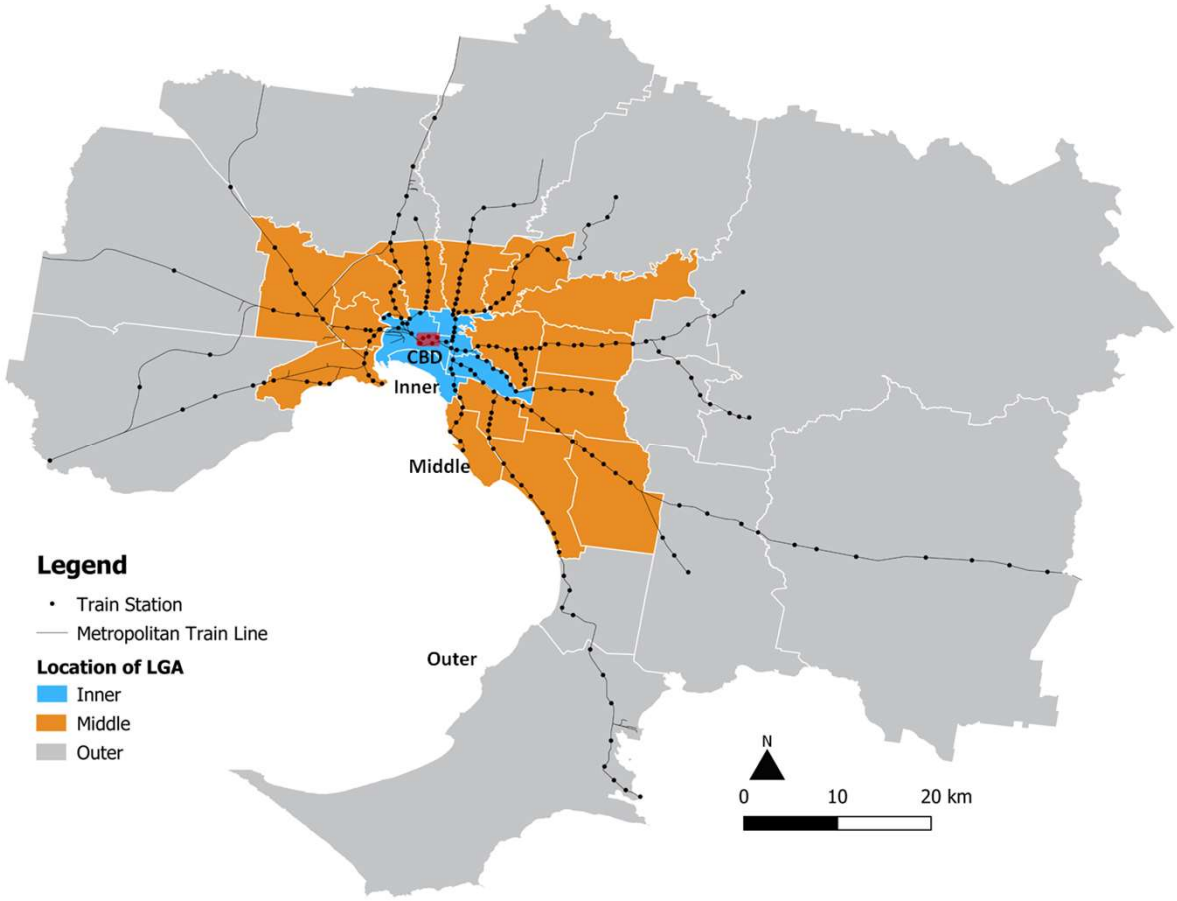
This presentation outlines findings of a study aiming to understand the long term/post pandemic impacts of Covid-19 on Travel in Melbourne – it focusses on spatial insights

Objective: Understand how C-19 has impacted travel including long term effects.

Stages of Covid-19[1]

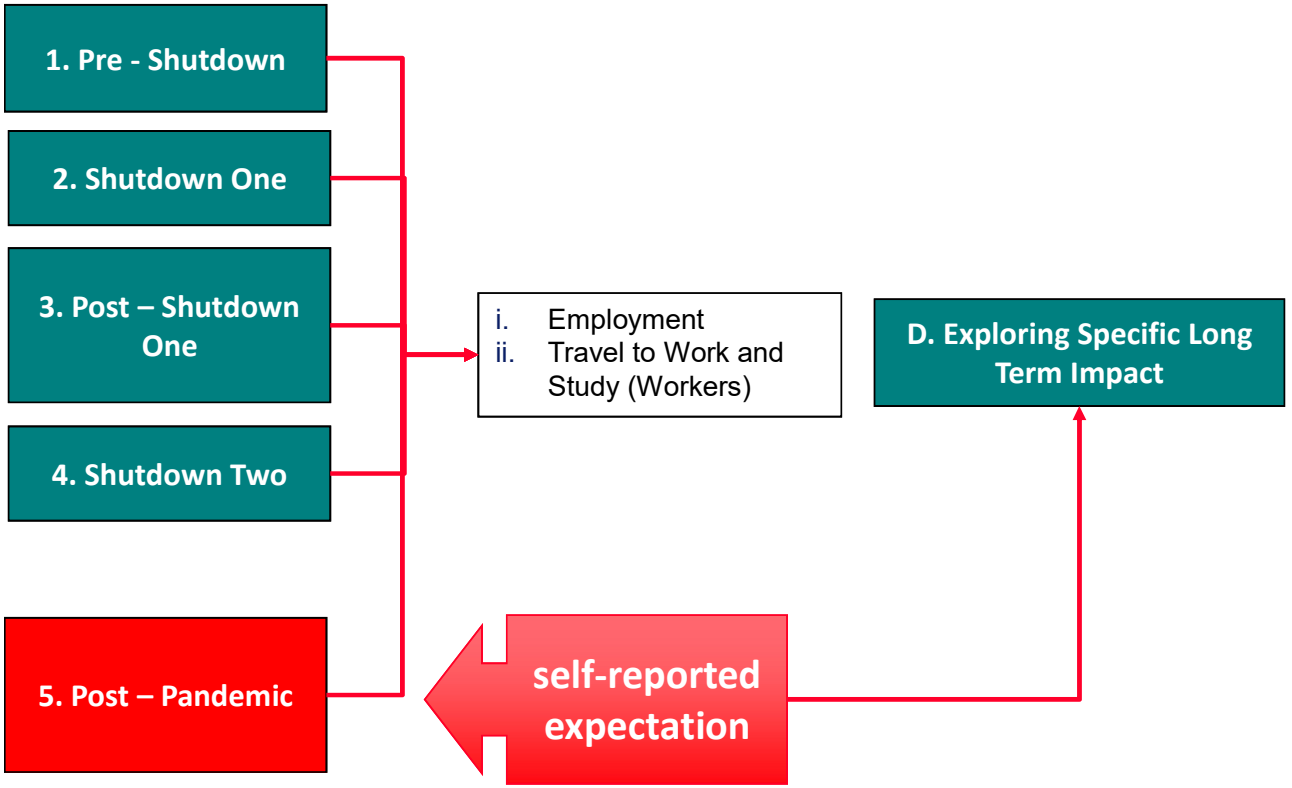


Spatial Divisions



A unique research tool – a representative sample survey rather than 'convenience sampling' – results are representative of the population & adopt 'self-reported expectation' of post-covid travel

Online Panel Survey Questionnaire – Areas Covered



Note:

(1) Quotas in a sample aim to ensure representation of the community with respect to key/influential demographic and spatial criteria

(2) Statistical accuracy minimums are a sample of 600 to achieve a 95% confidence that any result is within 4% standard error.

Sample Frame[1]

INNER MELBOURNE (n=700)					
	Annual Personal Income , Before Tax				Total
	Nil Income	Less than	Between	More than	
Age Group	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**

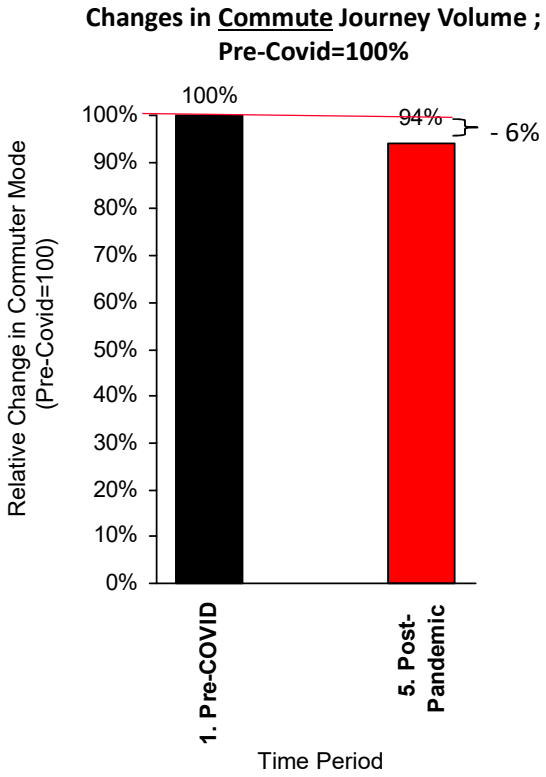
MIDDLE MELBOURNE (n=700)					
	Annual Personal Income , Before Tax				Total
Age Group	Target	Target	Target	Target	Total Target
18-35	37	73	92	36	238
36-54	17	43	87	90	237
55 and over	18	107	64	37	226
Total	**72**	**223**	**243**	**163**	**701**

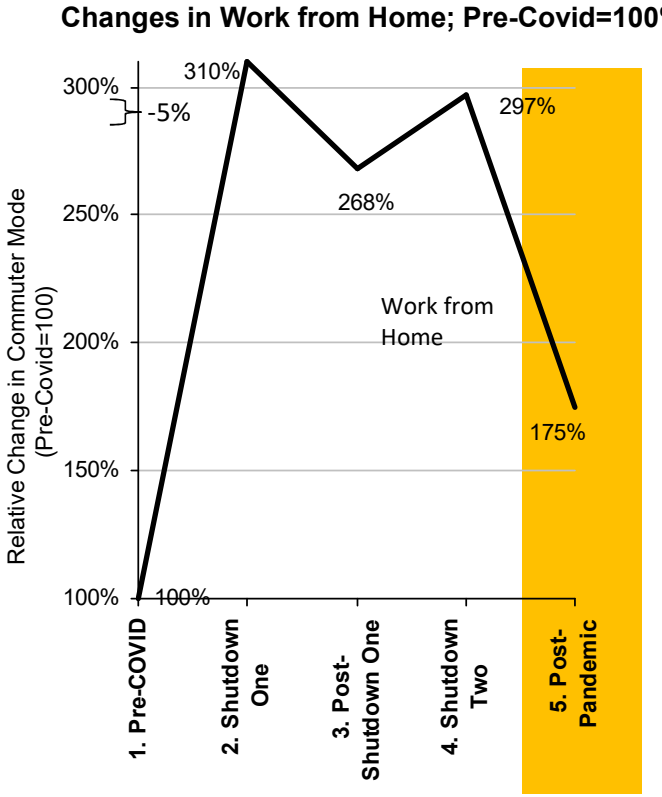
OUTER MELBOURNE (n=700)					
	Annual Personal Income , Before Tax				Total
	Nil Income	Less than	Between	More than	
Age Group	Target	Target	Target	Target	Total Target
18-35	26	87	97	24	234
36-53	15	64	101	56	236
54 and over	18	122	65	25	230
Total	**59**	**273**	**263**	**105**	**700**

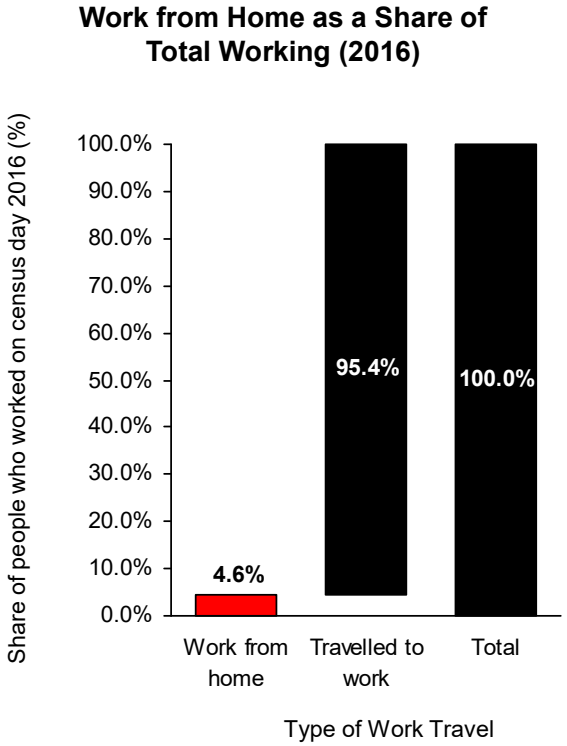
GRAND TOTAL					
	Annual Person Income, Before Tax				Total
	Nil Income	INCOME 1	INCOME 2	INCOME 3	
Age Group	Target	Target	Target	Target	Total Target
AGE GROUP 1	116	256	272	76	720
AGE GROUP 2	44	150	274	225	693
AGE GROUP 3	48	318	191	131	688
Total	**208**	**724**	**737**	**432**	**2101**

POST COVID total JTW travel declines by 6% - mainly due to increased WFH – the scale of shift is small (6%) because WFH is small as a share of work

Post-Covid Total Travel Reduction and Links to WFH Growth







Note:

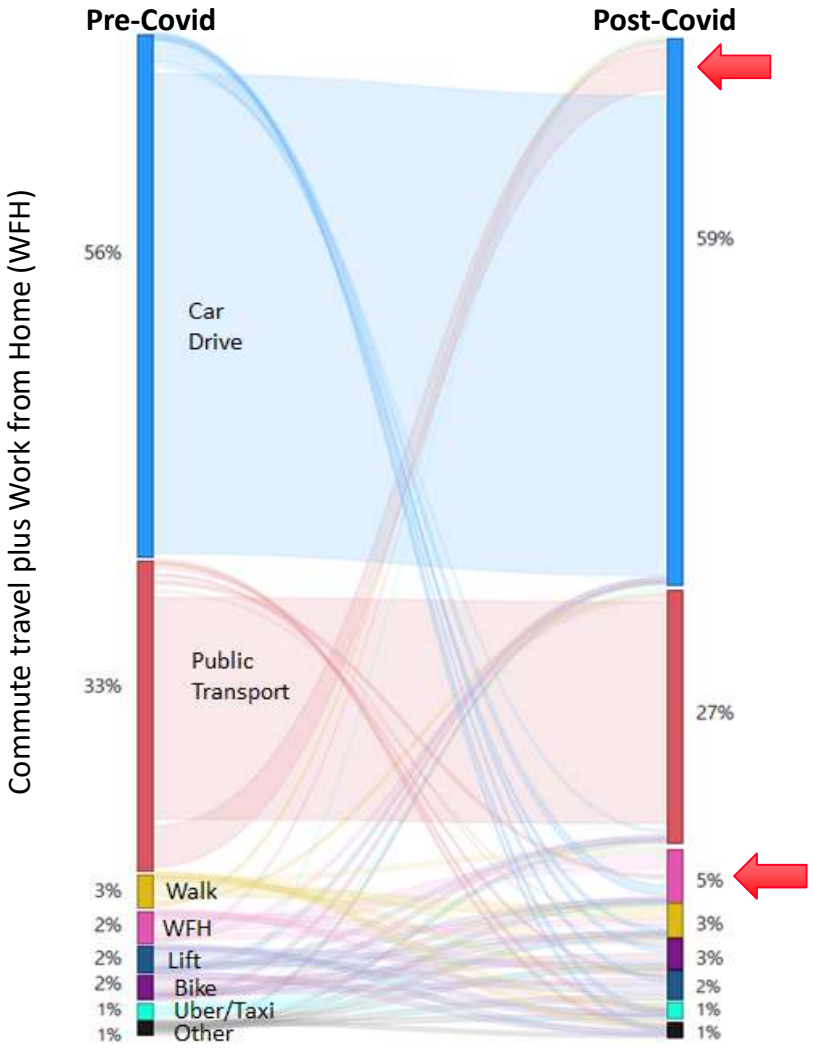
(1) Monash - August 2020 Online Panel –final sample - Self reported activity participation volume per week

(2) Weighted sample; representative of total Melbourne travel

Source:: Australian Bureau of Statistics, 2016 Census Journey to Work

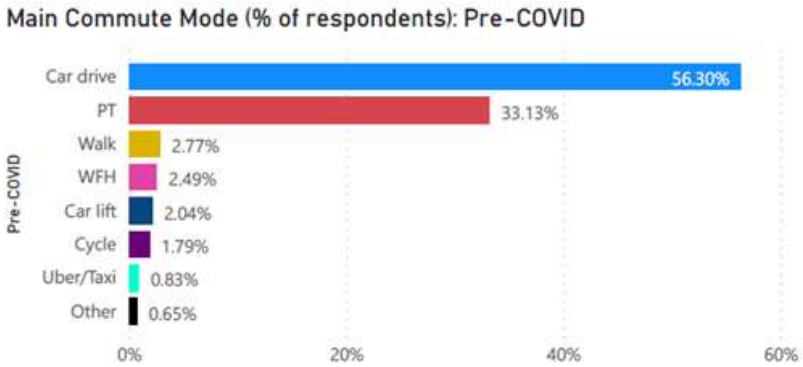
POST COVID JTW travel has a mode shift from transit to car-drive of around 3%; WFH increases from 2% to 5% from both car drive, transit and other modes

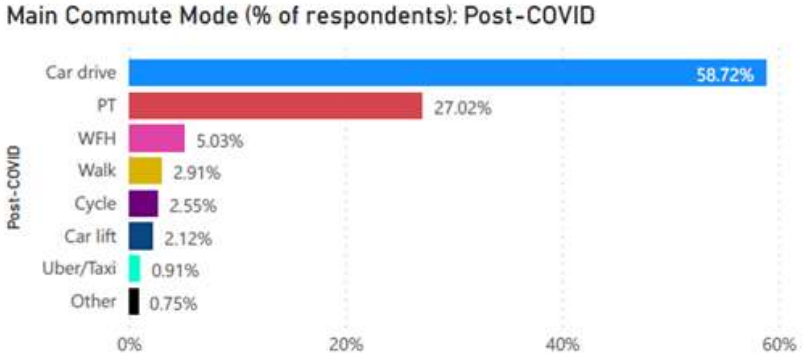
Post-Covid Total Mode Shift



Main Commute Mode- Pre-COVID and Post-COVID
All Melbourne (n = 1318)

- Cross-regional weights applied
- Only selected respondents employed / expected to be employed (FT, PT or casual) at both points in time

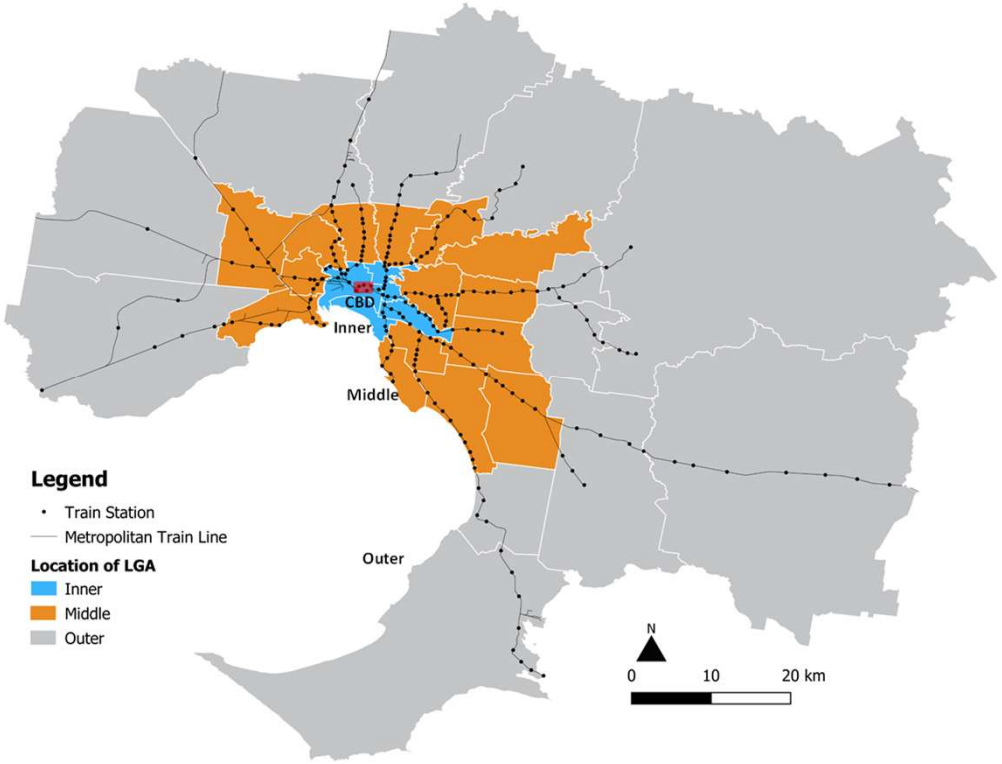




Spatial Insights - Melbourne CBD and Inner/Middle/Outer Melbourne

CBD Commuting

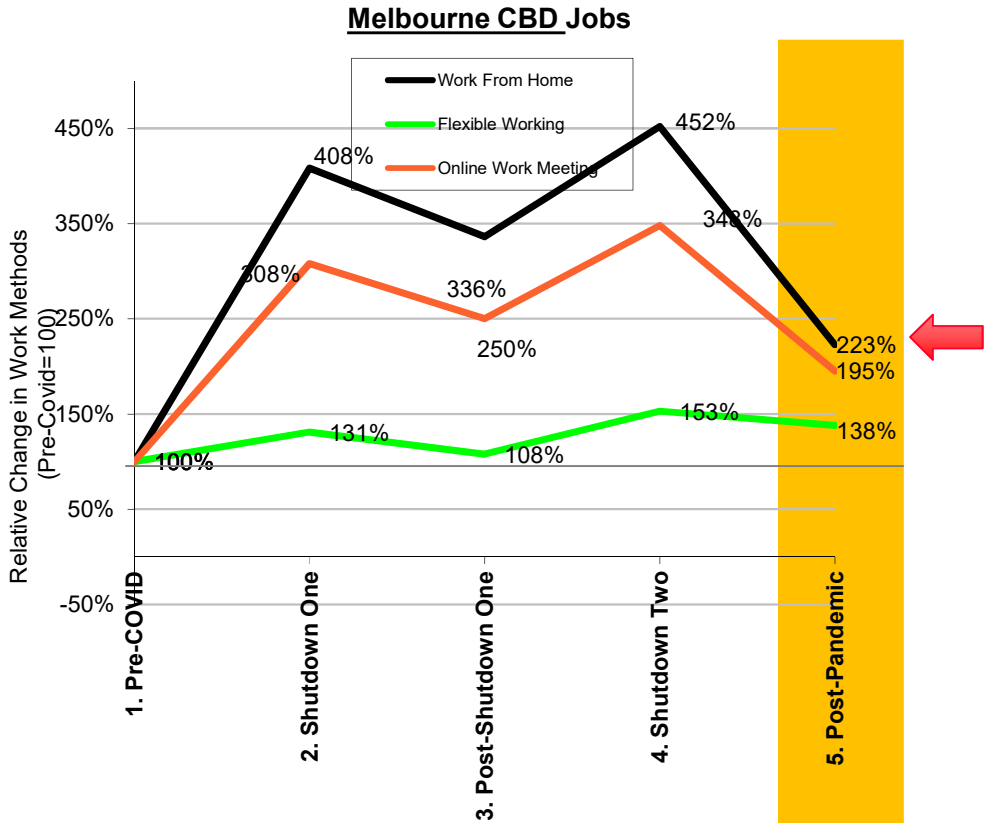
Melbourne Region

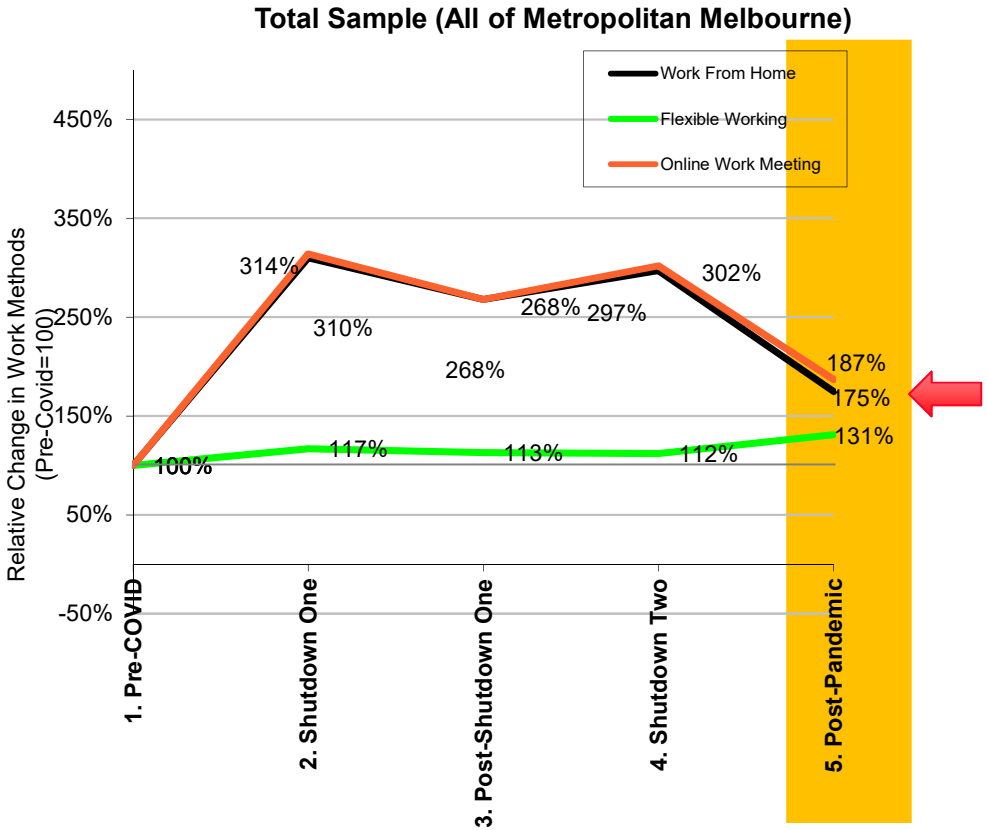


Work from Home is MUCH more common for CBD workers; Post Pandemic WFH is expected to more than double (+123%) compared to pre-covid, much higher than for Melb as a whole (+75%)

CBD Commuting

CBD vs Melbourne - Changes in Alternative Work Methods ; Pre-Covid=100%





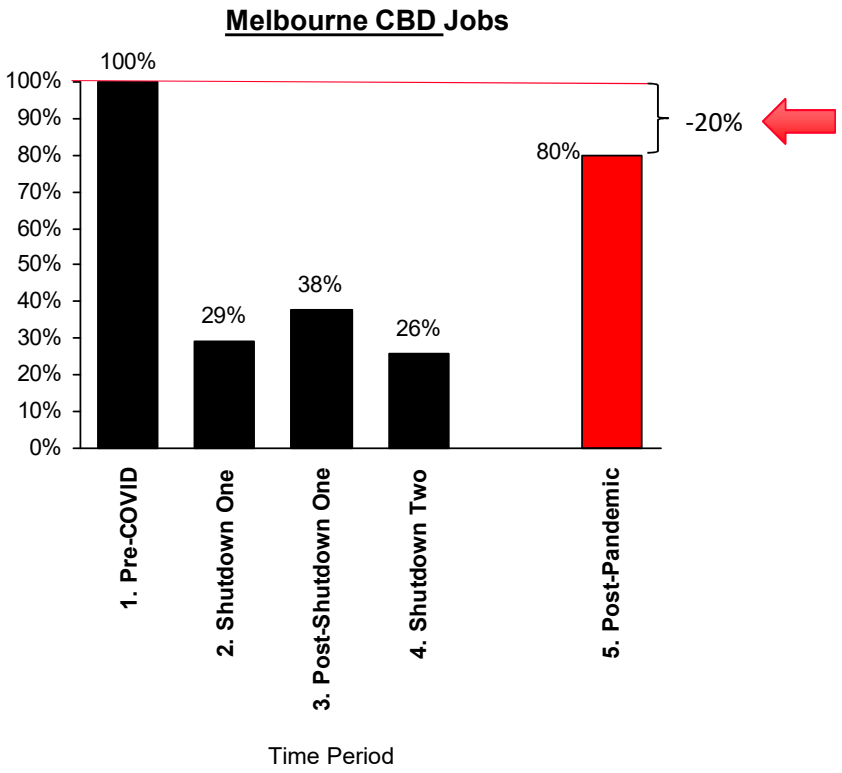
Note:

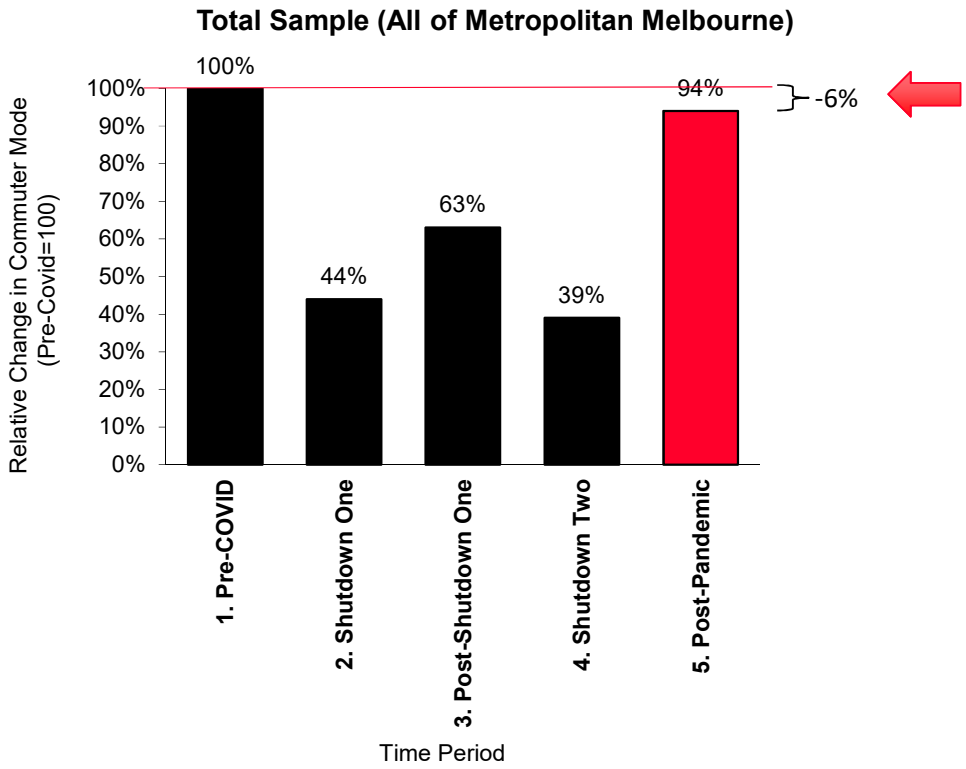
(1) Monash – August 2020 Online Panel Survey – final sample - Self reported activity participation volume per week (2) Weighted sample; representative of total Melbourne travel

Respondents say CBD COMMUTE will reduce more than the rest of Melbourne; Post Pandemic a 20% decline in CBD COMMUTE is self estimated - much larger than for Melbourne as a whole (6%)

CBD Commuting

CBD vs Melbourne Jobs - Changes in Commute Journey Volume ; Pre-Covid=100%





Note:

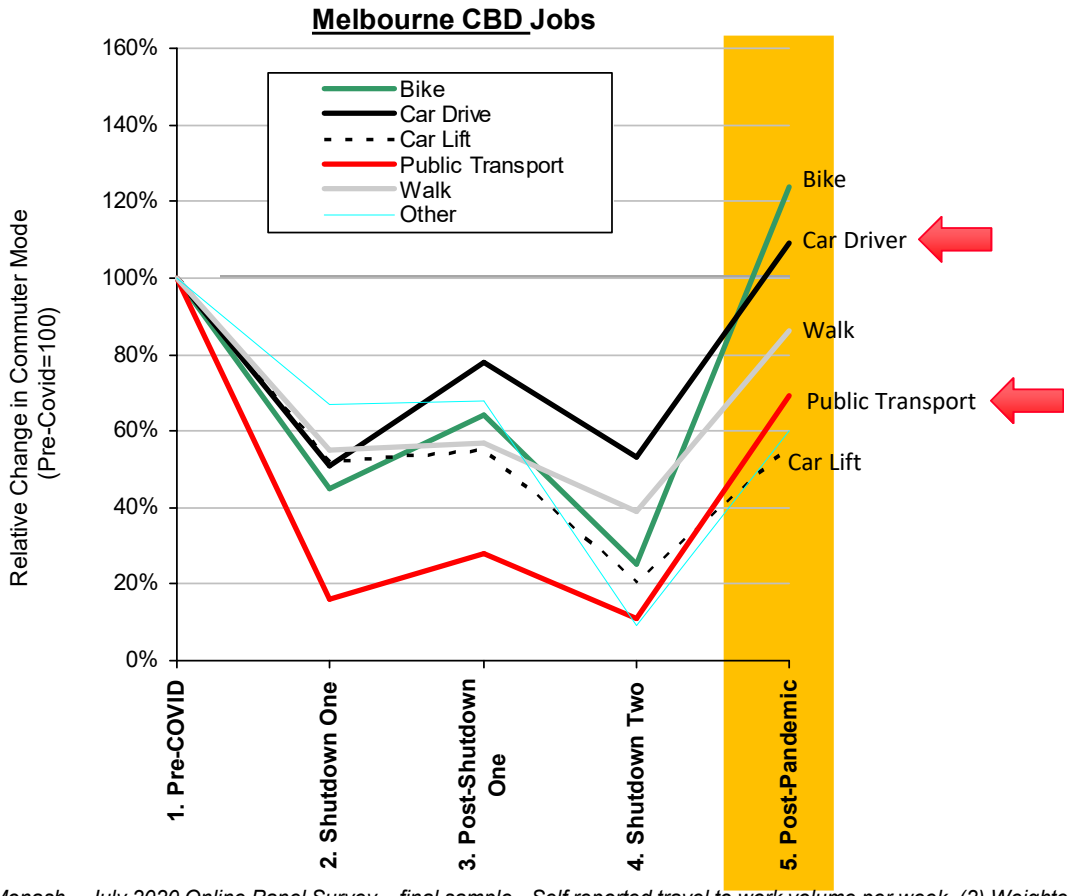
(1) Monash - August 2020 Online Panel – final sample - Self reported CBD travel to work volume per week

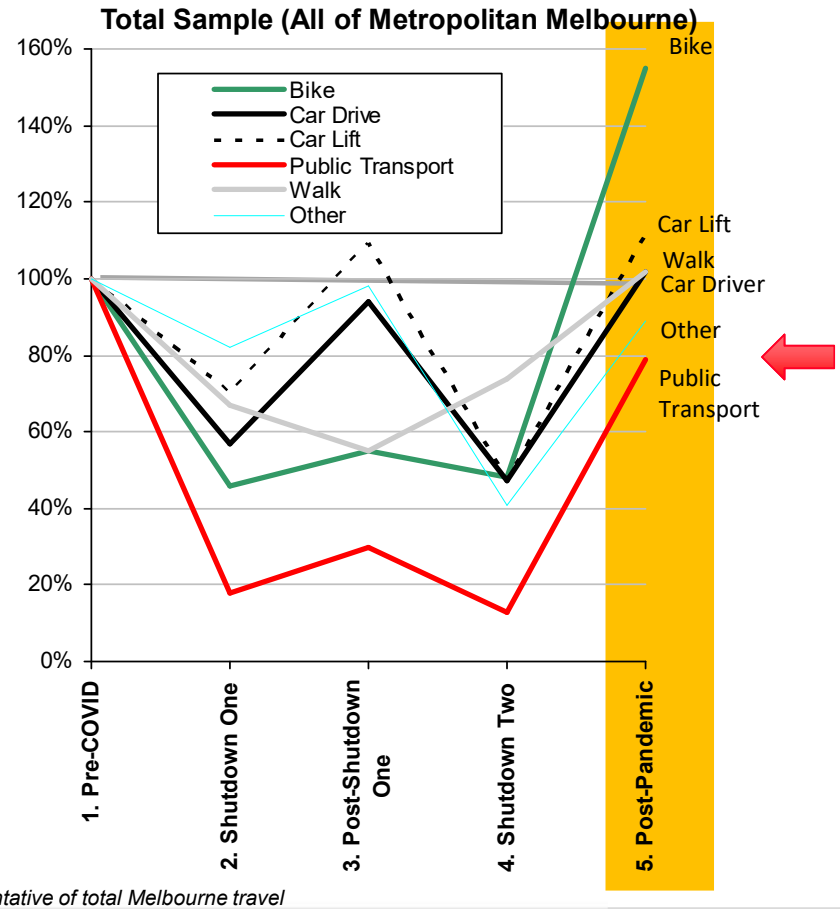
(2) Weighted sample; representative of total Melbourne travel

Post-Covid CBD COMMUTE grows for Bike (+24% Pre-Covid) & Car Driver (+9%). Car Lift (-44%) PT (-31%) & Walk (-14%) reduce. CBD modes decline more than Citywide; Car Driving growth is bigger

CBD Commuting

CBD vs Melbourne Jobs - Changes in Commute Journey Volume by Mode ; Pre-Covid=100%





Note:

(1) Monash – July 2020 Online Panel Survey – final sample - Self reported travel to work volume per week (2) Weighted sample; representative of total Melbourne travel

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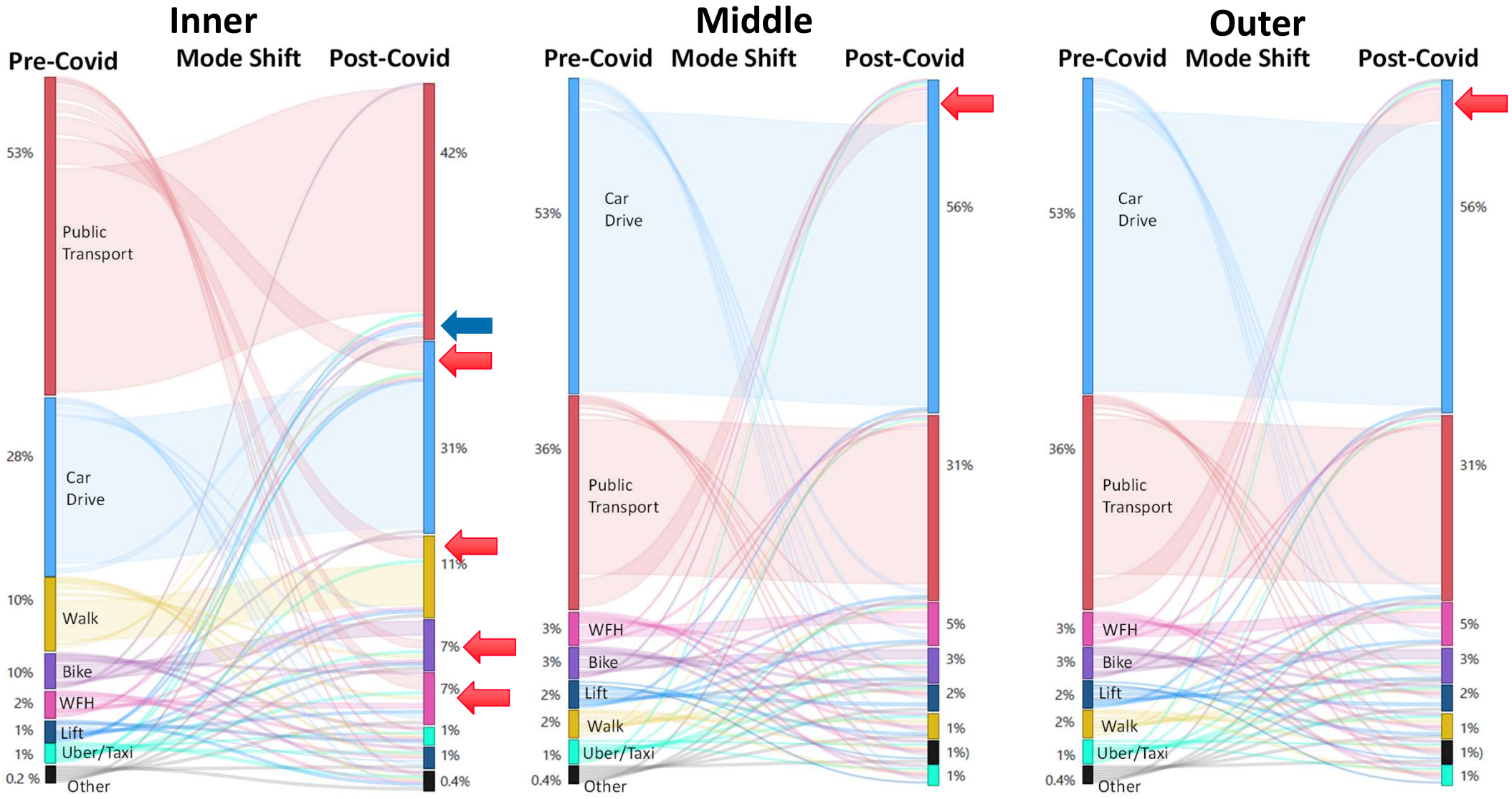
By <u>Melbourne Region</u>; there is a significantly different set of MODE SHIFT from Inner Area residents fro transit to car drive/walk and WFH; Middle/Outer shifts are much smaller



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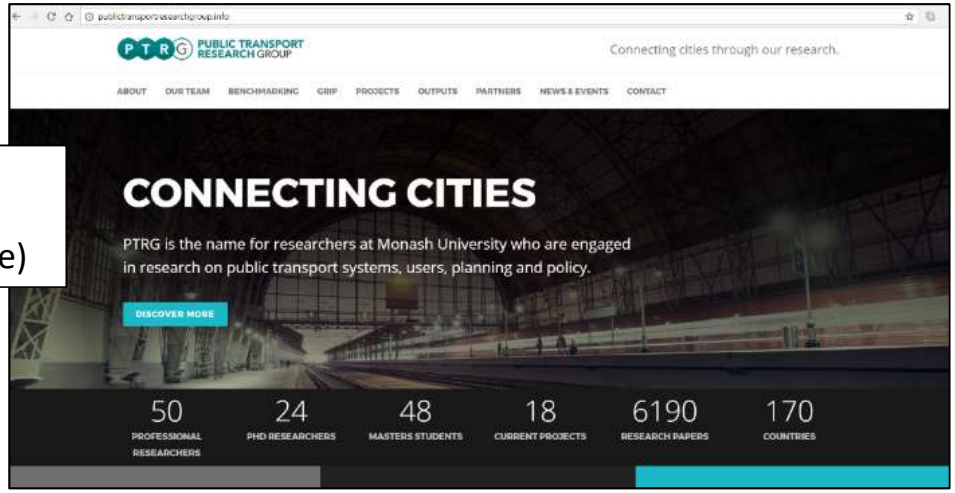
(project has a webpage on this site)



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Researching Transit

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RT5 – Long term impact of COVID-19 on Travel Behaviour

SOUNDCLOUD