

# Transport and Land Use Research Symposium – PTRG Research

Prof Graham Currie FTSE  
Public Transport Research Group  
Monash Institute of Transport Studies  
Monash University, Australia



MONASH  
INSTITUTE OF  
TRANSPORT  
STUDIES



# PTRG Current Research in Transport and Land Use

## Legacy Projects – SEPT GRIP

- ▶ **A new approach to study the relationship between the built environment and transit use** – Dr Laura Aston, DoT
- ▶ **Placemaking and Streetscape Design: Exploring the Impacts of Tram Network Modernisation on Subjective Perception of Place Quality** – Dr Matt Diemer, Yarra Trams
- ▶ **Exploring Service Concentration, Service Coverage and Resourcing in Urban Bus Networks** – Dr Nora Estfaller, Transdev

## 2021-2022 – FYP Student Projects Underway

- ▶ Victorian Department of Transport:
  - a. **Development/Management Existing & New Potential Bike Paths on Rail/Tram Corridors - Lessons for MR5**
  - b. **High Capacity Bus Deployment - Lessons Learned**
- ▶ Metro Trains
  - f. **Exploring the Accessibility Impacts of Additional Station Access Point Improvements**

## 2021/22- Industry Projects Underway

- ▶ **Long Term Impacts of Covid-19 on Travel in Melbourne** – for Victorian Department of Transport

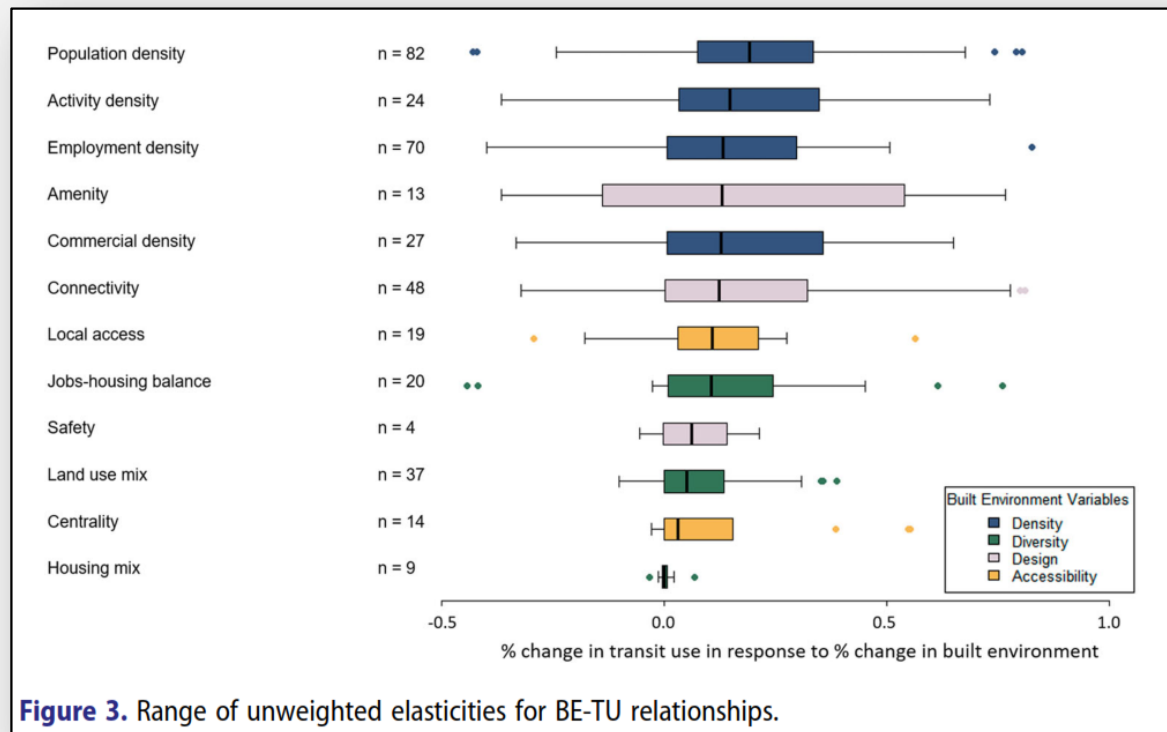
## 2021/22- ARC Projects Underway

- ▶ **The long-term effects of autonomous cars on land use, access and travel** – Australian Research Council DP200100952

## 2021-2022 – PhD Projects Underway

- ▶ **Exploring the Transport (VoT) impacts of Autonomous Vehicles** (Fuad Huda)
- ▶ **Exploring the Transport (Land Use) impacts of Autonomous Vehicles** (Allan Ribeiro Pimenta - MADA)
- ▶ **Improving renewable energy applications for electric public transport (depot location)** – Adel Karama





**Figure 3.** Range of unweighted elasticities for BE-TU relationships.

Source: Aston L, Currie G, Delbosc A, Kamruzzaman M & Teller D (2020): *Exploring built environment impacts on transit use - an updated meta-analysis*, TRANSPORT REVIEWS

### Publications

1. Aston L, Currie G Kamruzzaman L, Delbosc A and Min C (2021) 'Methodologies for Empirical Public Transport and Built Environment Research' Chapter 3 in in Currie G (ed) 'Handbook of Public Transport Research' Edward Elgar Publishing
2. Aston L, Currie G, Delbosc A, Kamruzzaman M & Teller D (2020): **Exploring built environment impacts on transit use - an updated meta-analysis**, TRANSPORT REVIEWS
3. Aston L, Currie G, Kamruzzaman M, Delbosc A and Teller D (2020) '**Addressing transit mode location bias in built environment-transit mode use research**' JOURNAL OF TRANSPORT GEOGRAPHY Volume 87, July 2020, 102786
4. Aston L, Currie G, Kamruzzaman M, Delbosc A and Teller D (2020) '**Study Design Impacts on Built Environment and Transit Use Research**' JOURNAL OF TRANSPORT GEOGRAPHY Volume 82, January 2020, 102625
5. Aston L, Currie G and Pavkova K (2016) '**Does Transit Mode Influence the Transit-Orientedness of Urban Development? - An Empirical Study**' JOURNAL OF TRANSPORT GEOGRAPHY Vol 55 (2016) pp83-91

# PTRG Current Research in Transport and Land Use

## Legacy Projects – SEPT GRIP

- ▶ A new approach to study the relationship between the built environment and transit use – Dr Laura Aston, DO
- ▶ Placemaking and Streetscape Design: Exploring the Impacts of Tram Network Modernisation on Subjective Perception of Place Quality – Dr Matt Diemer, Yarra Trams
- ▶ Exploring Service Concentration, Service Coverage and Resourcing in Urban Bus Networks – Dr Nora Estfaller, Transdev

## 2021-2022 – FYP Student Projects Underway

- ▶ Victorian Department of Transport:
  - a. Development/Management Existing & New Potential Bike Paths on Rail/Tram Corridors - Lessons for MR5
  - b. High Capacity Bus Deployment - Lessons Learned
- ▶ Metro Trains
  - f. Exploring the Accessibility Impacts of Additional Station Access Point Improvements

## 2021/22- Industry Projects Underway

- ▶ Long Term Impacts of Covid-19 on Travel in Melbourne – for Victorian Department of Transport

## 2021/22- ARC Projects Underway

- ▶ The long-term effects of autonomous cars on land use, access and travel – Australian Research Council DP200100952

## 2021-2022 – PhD Projects Underway

- ▶ Exploring the Transport (VoT) impacts of Autonomous Vehicles (Fuad Huda)
- ▶ Exploring the Transport (Land Use) impacts of Autonomous Vehicles (Allan Ribeiro Pimenta - MADA)
- ▶ Improving renewable energy applications for electric public transport (depot location) – Adel Karama

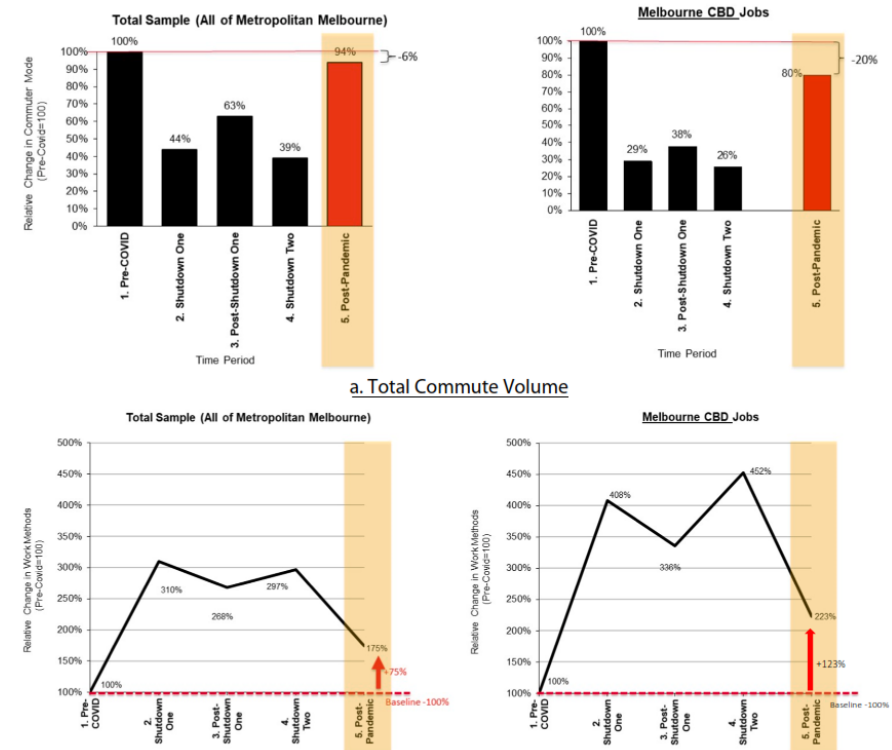
### Publications

1. Delbosc A, Currie G Jain T and Aston L (In Press) "The 're-norming' of working from home during COVID-19: A Transtheoretical behaviour change model of a major unplanned disruption" Transport Policy Submitted 18-02-2022
2. Currie G, Jain T and Aston L (2021) "Evidence of a Post-COVID Change in Travel Behaviour - Self-Reported Expectations of Commuting in Melbourne" Transportation Research Part A Volume 153, November 2021, Pages 218-234
3. Jain T Currie G and Aston L (2022) "COVID and Working from Home: Long-term Impacts and Psycho-social Determinants" TRANSPORTATION RESEARCH PART A Volume 156, February 2022, Pages 52-68

Source: Currie G, Jain T and Aston L (2021) "Evidence of a Post-COVID Change in Travel Behaviour - Self-Reported Expectations of Commuting in Melbourne" Transportation Research Part A Volume 153, November 2021, Pages 218-234

G. Currie et al.

Transportation Research Part A 153 (2021) 218–234



# PTRG Current Research in Transport and Land Use

## Legacy Projects – SEPT GRIP

- ▶ **A new approach to study the relationship between the built environment and transit use** – Dr Laura Aston, DoT
- ▶ **Placemaking and Streetscape Design: Exploring the Impacts of Tram Network Modernisation on Subjective Perception of Place Quality** – Dr Matt Diemer, Yarra Trams
- ▶ **Exploring Service Concentration, Service Coverage and Resourcing in Urban Bus Networks** – Dr Nora Estfaller, Transdev

## 2021-2022 – FYP Student Projects Underway

- ▶ Victorian Department of Transport:
  - a. **Development/Management Existing & New Potential Bike Paths on Rail/Tram Corridors - Lessons for MR5**
  - b. **High Capacity Bus Deployment - Lessons Learned**
- ▶ Metro Trains
  - f. **Exploring the Accessibility Impacts of Additional Station Access Point Improvements**

## 2021/22- Industry Projects Underway

- ▶ **Long Term Impacts of Covid-19 on Travel in Melbourne** – for Victorian Department of Transport

## 2021/22- ARC Projects Underway

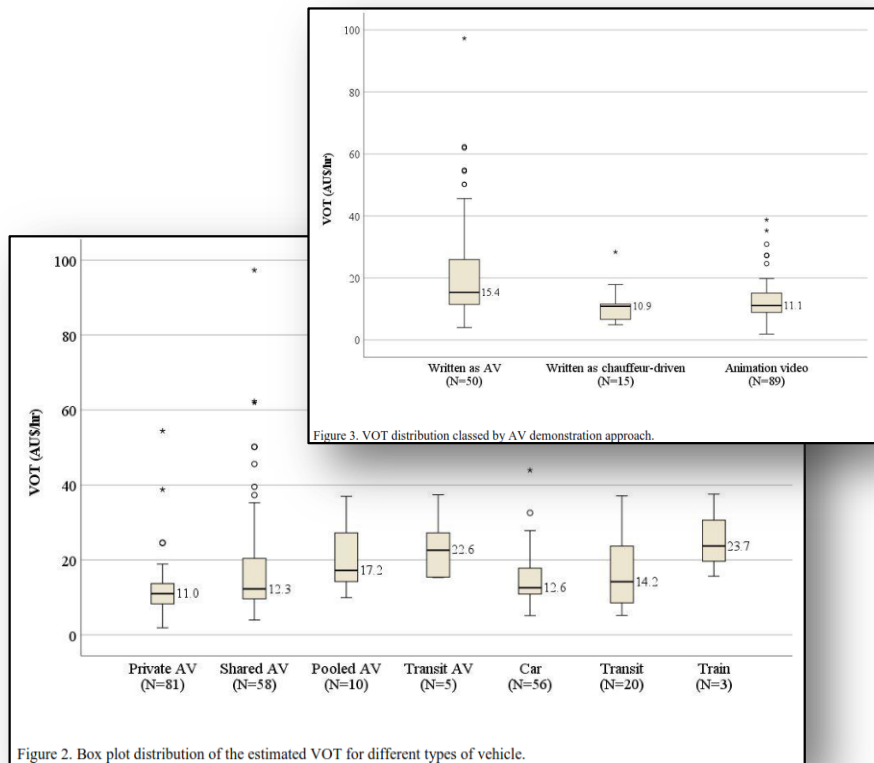
- ▶ **The long-term effects of autonomous cars on land use, access and travel** – Australian Research Council DP200100952

## 2021-2022 – PhD Projects Underway

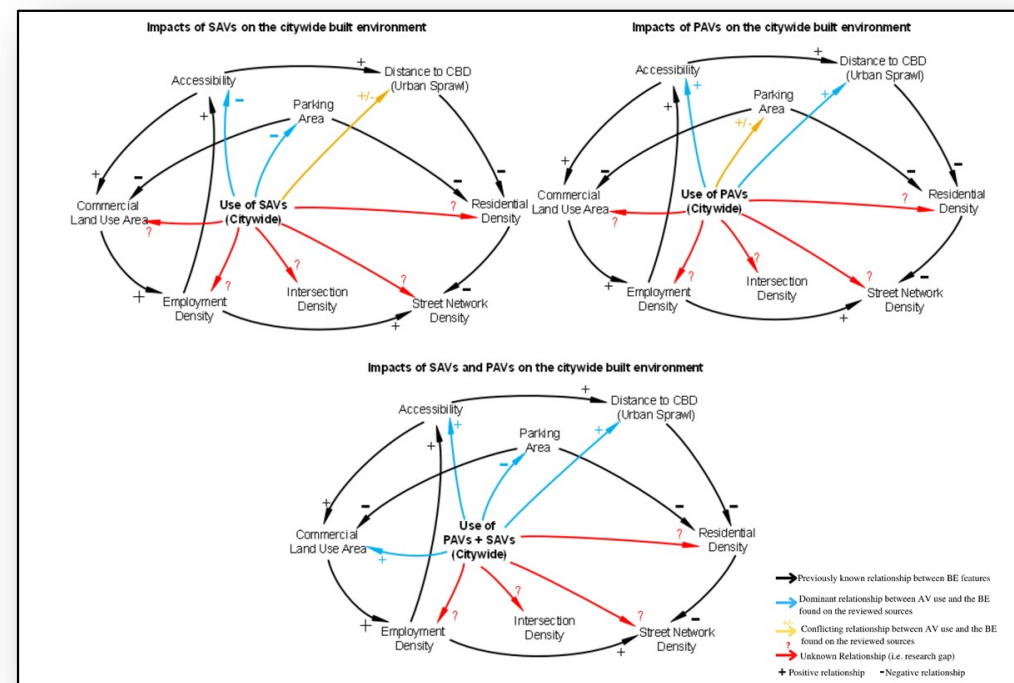
- ▶ **Exploring the Transport (VoT) impacts of Autonomous Vehicles** (Fuad Huda)
- ▶ **Exploring the Transport (Land Use) impacts of Autonomous Vehicles** (Allan Ribeiro Pimenta - MADA)
- ▶ **Improving renewable energy applications for electric public transport (depot location)** – Adel Karama



# PTRG Current Research in Transport and Land Use



**VoT – AVs ; Fuad Hada**



**AV & Land Use ; Allan Ribeiro Pimenta**

# PTRG Future Research in Transport and Land Use

## 2022/2023+ - Industry Projects in Bid/Development

- ▶ **Long Term Impacts of Covid-19 on Travel in Perth** – for Public Transport Authority, Western Australia
- ▶ **Travel and Location Choice Decisions in COVID-19** for DoT
- ▶ **Understanding and Managing Unplanned Rail Disruptions** for DoT
- ▶ **Understanding and Managing Planned Transport Disruptions** for DoT
- ▶ **TCRP Analysis of Public Transportation Health Impacts and Benefits** – Iowa State, MUARC

## 2022/23+- ARC Projects in Bid

- ▶ **Post-COVID cities: understanding new dynamics between people and places**– ARC DP2301001658