

RP2021 (GREENING SUBURBAN TRAVEL)

IMPROVING TRAVEL SUSTAINABILITY IN METROPOLITAN AUSTRALIA

Research Question

How do we maintain our mobility while reducing our environmental impact?

How can the travel needs of suburbia be met by public transport?

What single improvement will convince the most people to shift to a lower carbon transport mode?

This information allows targeted investment, maximising return!



Figure 1: Adelaide's investment in new trams, 2006.

Methodology

As **Adelaide has particularly low Public transit use** a survey will be undertaken across these suburbs.

A **stated choice questionnaire** will be designed and distributed allowing people to choose between hypothetical **public transport and driving options**.

These results will be **compared to interstate cases** to make sure the findings are **applicable for all Australia**.

With a time frame of **two years**, this work **underpins a wider study**, and with **continual communication** with the **major stakeholders including the South Australian Department of Transport** hopes to **initiate real change**

Preliminary Investigation

Before the mode shift intentions of the wider public are sought, some baseline data needs to be collected on public transport users. This was sourced from a previous onboard survey and ticketing.

Frequency effects

One area that will be investigated further is the effect of frequency improvements on ridership. It can be seen from the table below that train stations with **twice the service frequency** are about **3-4 times more attractive** to passengers.

Station	Frequency	Passengers.
Ascot Park	4 trains/hr	1329
Mitchell Park	2 trains/hr	461
Marion	4 trains/hr	1393
Parafield Gardens	2 trains/hr	531
Parafield	4 trains/hr	2003
Chidda	2 trains/hr	611

Figure 2: Weekly passenger counts by station (The stations shaded in blue are on the Seaford line in the south of Adelaide with those in orange out North.)

Although this was a preliminary investigation, care was still taken to select representative stations where the only significant difference was service frequency. The criteria for this was;

- **Adjacency** within neighbouring suburbs, and with similar travel times to the CBD
- **Access regime similarities** all stations were deemed only to be accessed from surrounding suburbs (from visual investigation of maps)

Connectivity effects

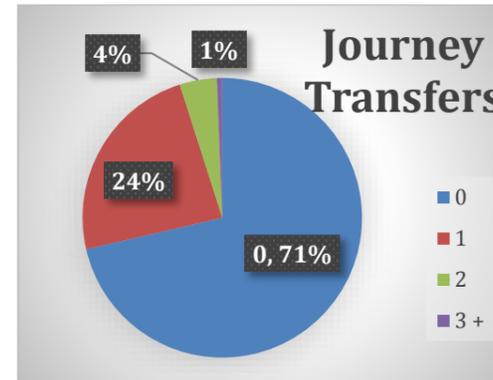


Figure 3: Proportion of public transport journeys using multiple services

It can be seen that the majority of people using public transport in Adelaide go from an origin to a destination on one public transport vehicle. The vast majority of those who used more than one service for their journey had no alternative available.

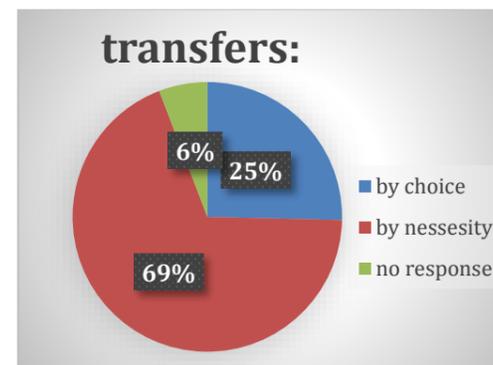


Figure 4: Transfer breakdown by car availability

Conclusions

Attitudes don't equal actions

Many people say that they know they should use low carbon transport options more often, but...

While people can justify their actions to themselves the behaviour remains (Heberlein 2012).

Anticipated impacts

The public transport Authorities need to gain a better understanding of the psychology of their customers, potential and current.

This understanding should allow **better service provision**. This in turn means more **convenient low carbon mobility**. When public transport agencies benefit from **higher usage**, there will be **less need for government subsidy**.

Further information

For further information, please send an email to the contact address below, or...

Visit the **CRC LCL website** at <http://www.lowcarbonlivingcrc.com.au>

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