

APRIL 2024



# Social Infrastructure Accessibility Mapping

ABORIGINAL COMMUNITY CONTROLLED ORGANISATIONS

ARUP



## ACCOs

## Background

Arup investigated the accessibility of social infrastructure within Victoria across socio-demographic groups and transport modes. Isochrones (journey time catchments) were generated for every considered facility and used to inform what members of the population would be able to access this infrastructure under a variety of travel conditions.

This presentation focuses on accessibility to **ACCOs** (Aboriginal Community Controlled Organisations). These facilities provide a range of services to their local Aboriginal and Torres Strait Islander communities.

The conducted analysis was comprehensive, with outcomes generated for four distinct modes of transport, two time periods, and over twenty different socio-demographic groups. This presentation focuses on Aboriginal and Torres Strait Island people who are the main service users of ACCOs. Outcomes for 30- and 60-minute driving and public transport journeys are shown.

There are several classifications of ACCO facilities. This report focuses on accessibility to both 'main' and 'main regional' locations as defined by the Victorian Aboriginal Community Controlled Health Organisation (VACCHO).

Analysis of accessibility to Aboriginal Community Controlled Organisations assesses the population's ability to access to any ACCO generally. It does not consider other important factors that may contribute to access to an ACCO. For example, some Aboriginal and Torres Strait Islander people may choose to use an ACCO connected to their local

community and/or language group, rather than the closest facility. Therefore, this assessment is not intended as a comprehensive determination of accessibility. Engagement with Aboriginal and Torres Strait Islander people is critical to inform decision making around community infrastructure requirements.

### Aboriginal Community Controlled Organisations

Reporting region  Facility 



## ACCOs

# Driving accessibility by region

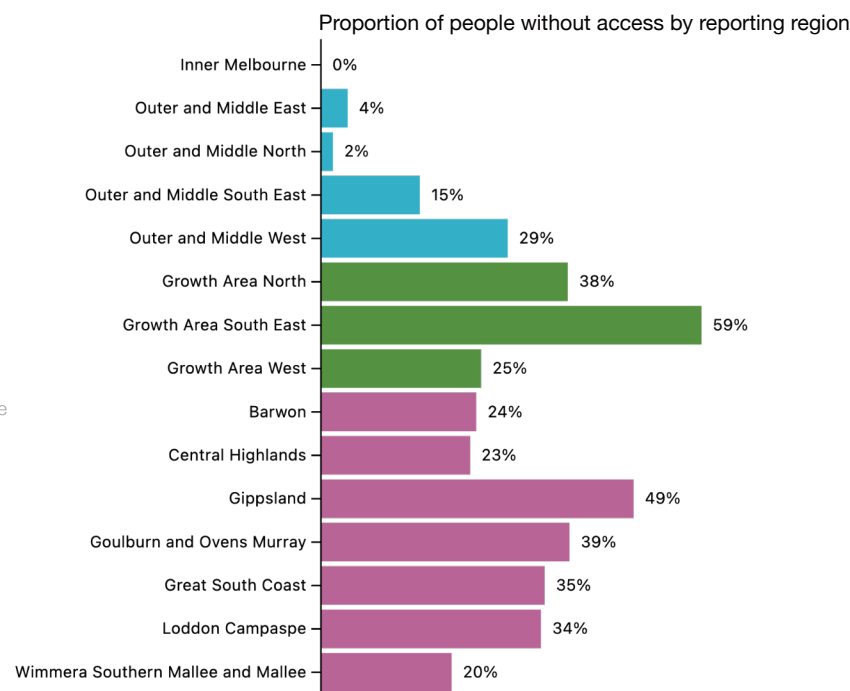
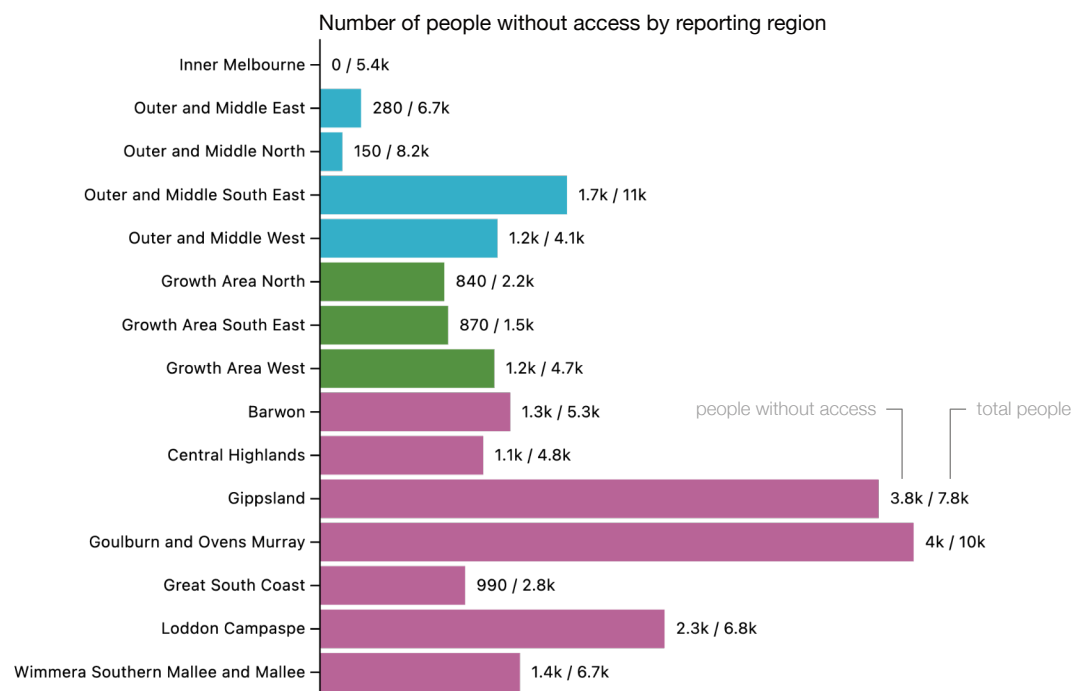
The charts below show driving access to ACCOs within 30 minutes. The figure on the left shows the total number of Aboriginal and Torres Strait Islander people without access under these conditions by reporting region, whilst the figure on the right shows this same statistic as a proportion of each region's Aboriginal and Torres Strait Islander people.

Approximately 21,000 of the 88,000 Aboriginal and Torres Strait Islander people across the state lack access to an ACCO via driving within 30 minutes. The largest concentrations of people without access occur in the *Outer and Middle South East*, *Gippsland*, and *Goulburn and Ovens Murray* reporting regions.

## People without driving access to ACCOs during the morning peak within 30 minutes

For Aboriginal and Torres Strait Islander people

Inner Metropolitan Growth Regional



## ACCOs

# Driving accessibility by region

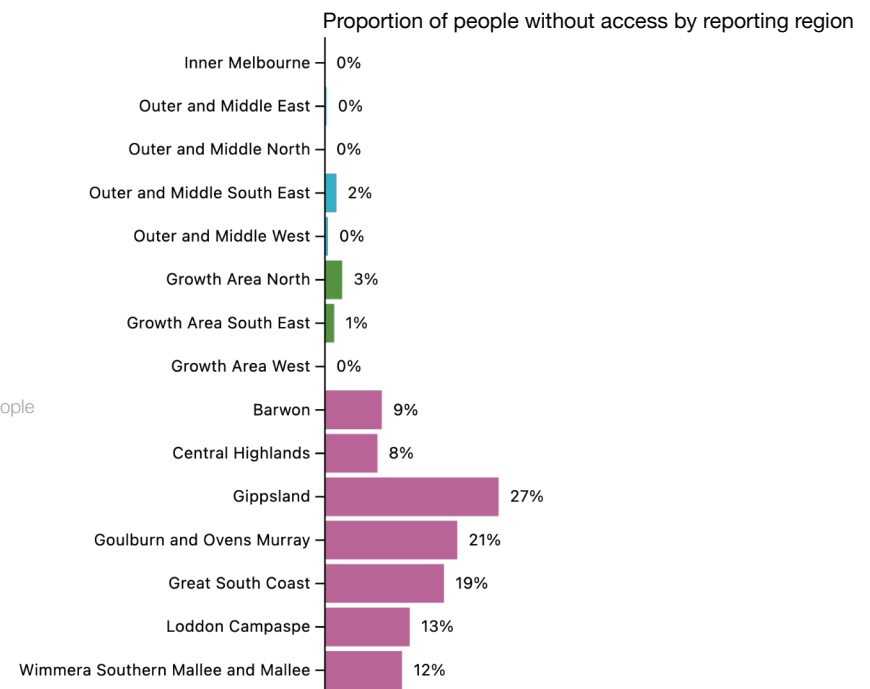
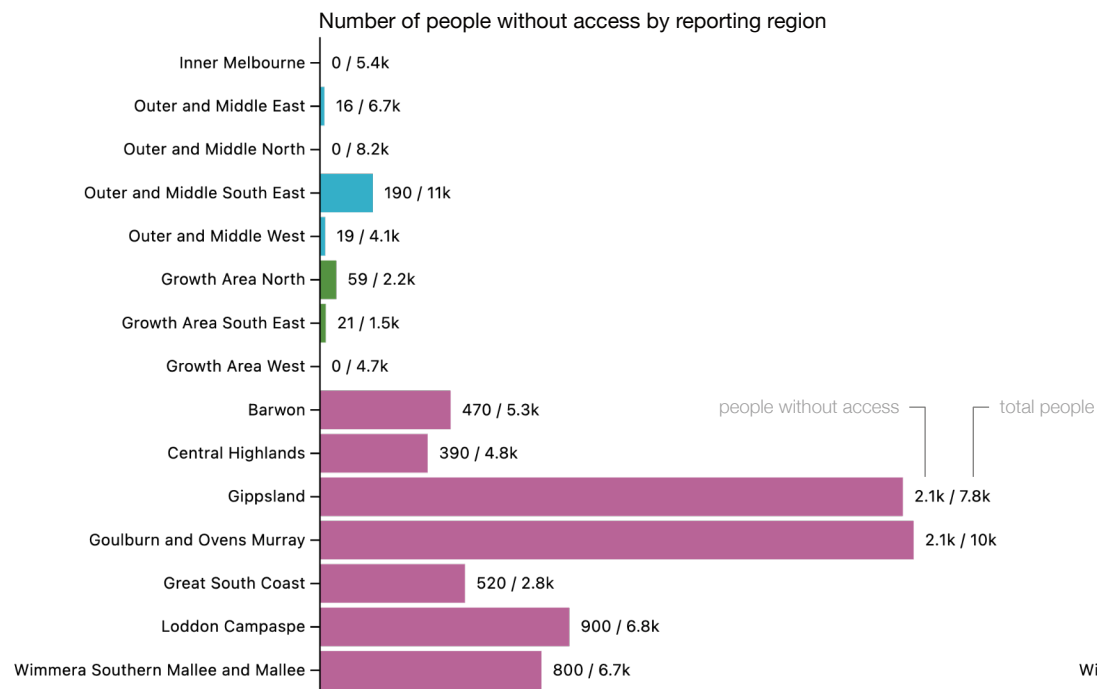
The charts below show driving access to ACCOs within 60 minutes. The figure on the left shows the total number of Aboriginal and Torres Strait Islander people without access under these conditions by reporting region, whilst the figure on the right shows this same statistic as a proportion of each region's Aboriginal and Torres Strait Islander people.

Approximately 7,600 of the 88,000 Aboriginal and Torres Strait Islander people across the state lack access to an ACCO via driving within 60 minutes. The largest concentrations of people without access occur in the *Gippsland* and *Goulburn and Ovens Murray* reporting regions.

## People without driving access to ACCOs during the morning peak within 60 minutes

For Aboriginal and Torres Strait Islander people

Inner Metropolitan Growth Regional





ACCOs

## Public transport accessibility by region

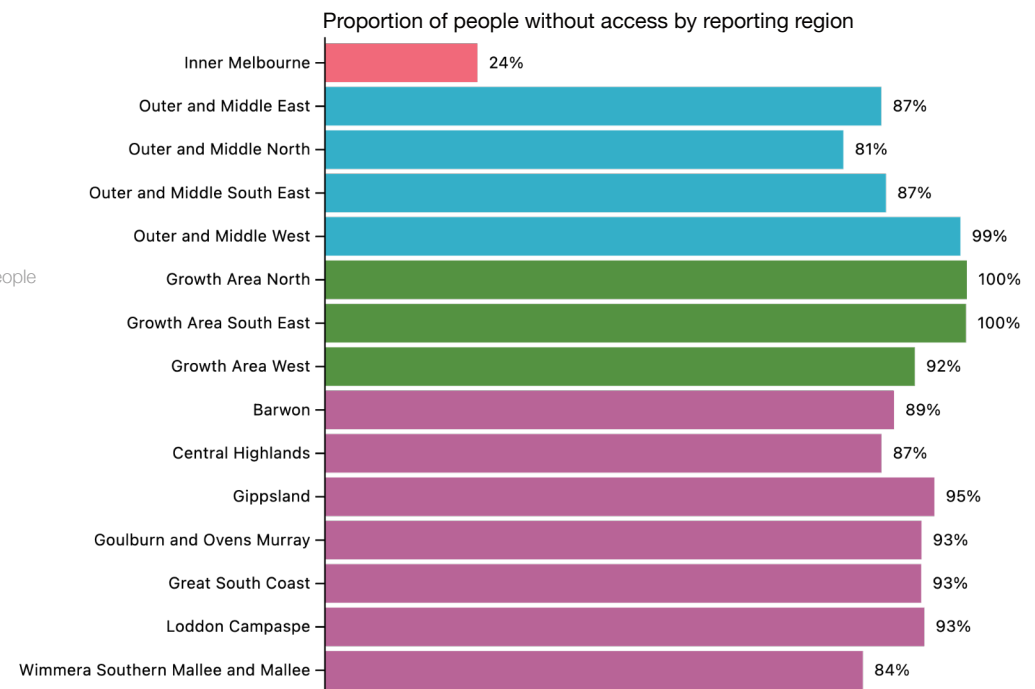
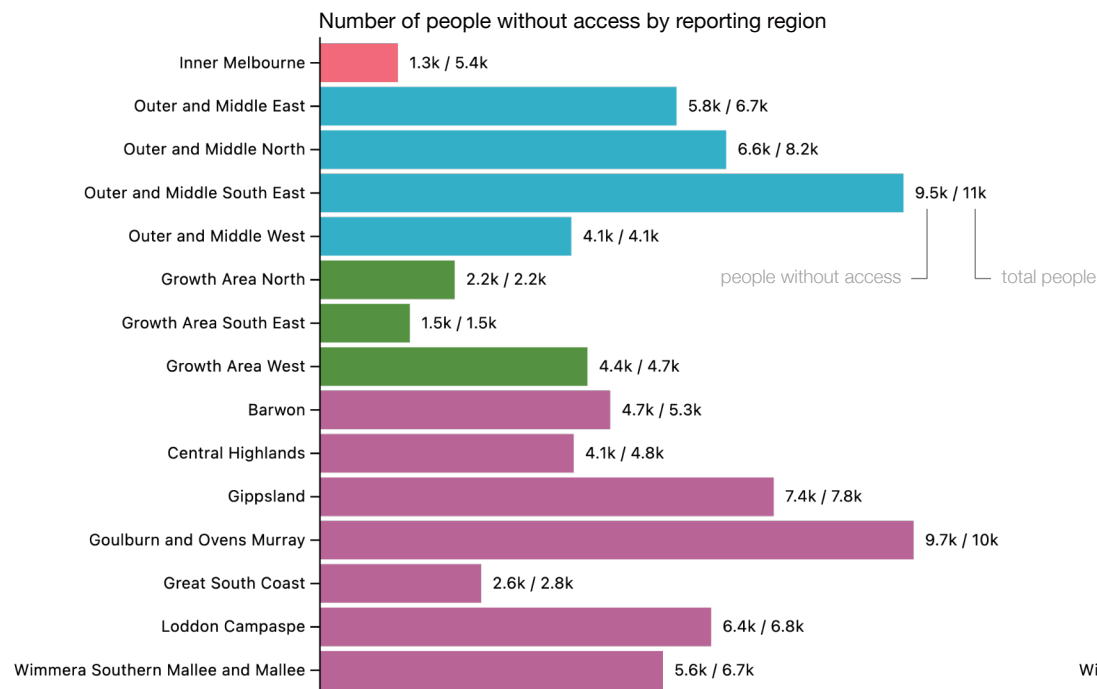
The charts below show public transport access to ACCOs within 30 minutes. The figure on the left shows the total number of Aboriginal and Torres Strait Islander people without access under these conditions by reporting region, whilst the figure on the right shows this same statistic as a proportion of each region's population of Aboriginal and Torres Strait Islander people.

Approximately 76,000 of the 88,000 Aboriginal and Torres Strait Islander people across the state lack access to an ACCO via public transport within 30 minutes. This represents almost everyone in this population. The *Inner Melbourne* region has the highest public transport accessibility, with only 24% of the population in this area lacking access to an ACCO.

### People without public transport access to ACCOs during the morning peak within 30 minutes

For Aboriginal and Torres Strait Islander people

Inner Metropolitan Growth Regional



## ACCOs

# Public transport accessibility by region

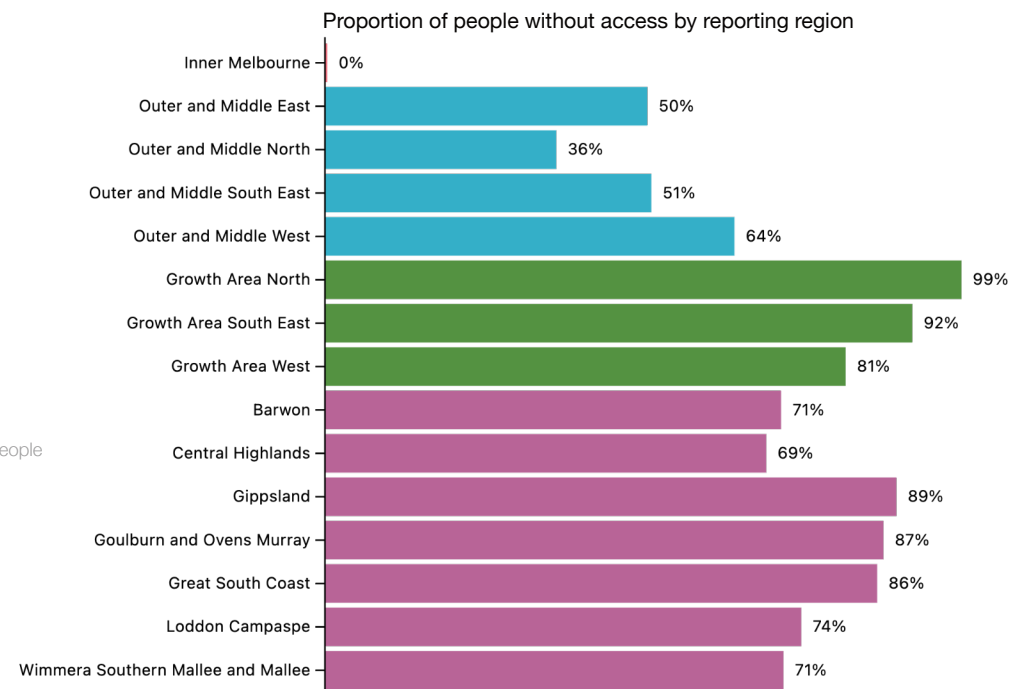
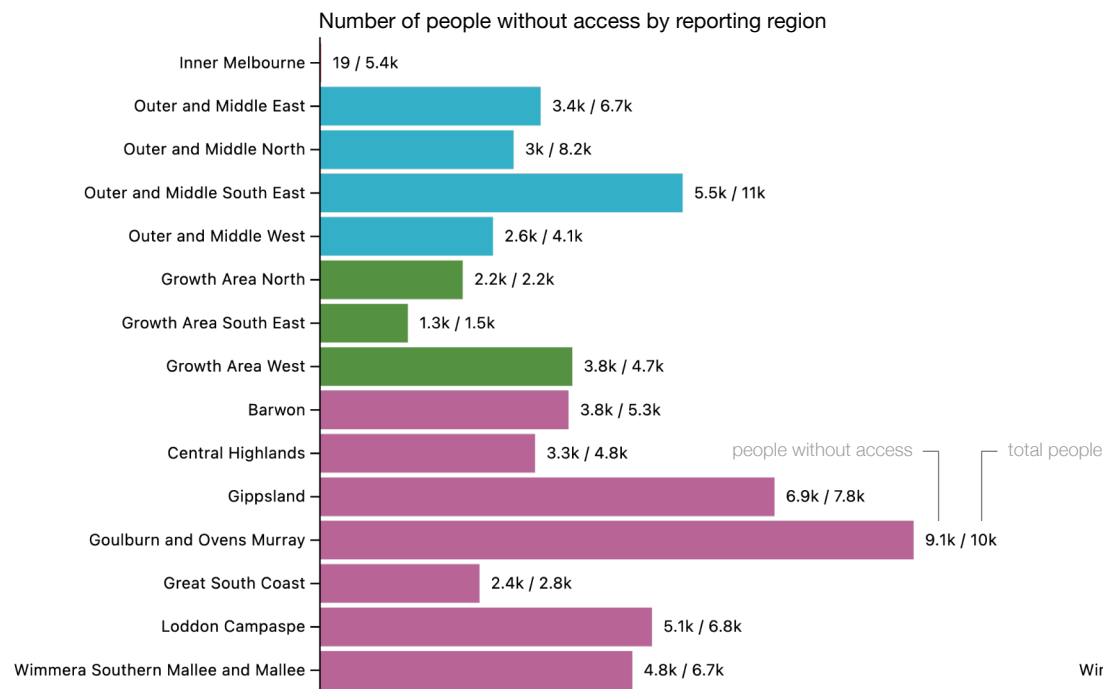
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Approximately 57,000 of the 88,000 Aboriginal and Torres Strait Islander people across the state lack access to an ACCO via public transport within 30 minutes. This represents almost everyone in this population. The *Inner Melbourne* region has the highest public transport accessibility, with the entirety of the population in this area able to access an ACCO.

## People without public transport access to ACCOs during the morning peak within 60 minutes

For Aboriginal and Torres Strait Islander people

Inner Metropolitan Growth Regional



## ACCOs

Accessibility by region  
category

The charts below show the total number of people without access to ACCOs during the morning peak via both driving and public transport within 30 and 60 minutes.

Reporting regions have been grouped into several categories. *Inner Melbourne* remains unchanged, whilst the *Other Melbourne* category contains Melbourne's middle, outer and growth areas. Remaining reporting regions are contained within the *Regional* category.

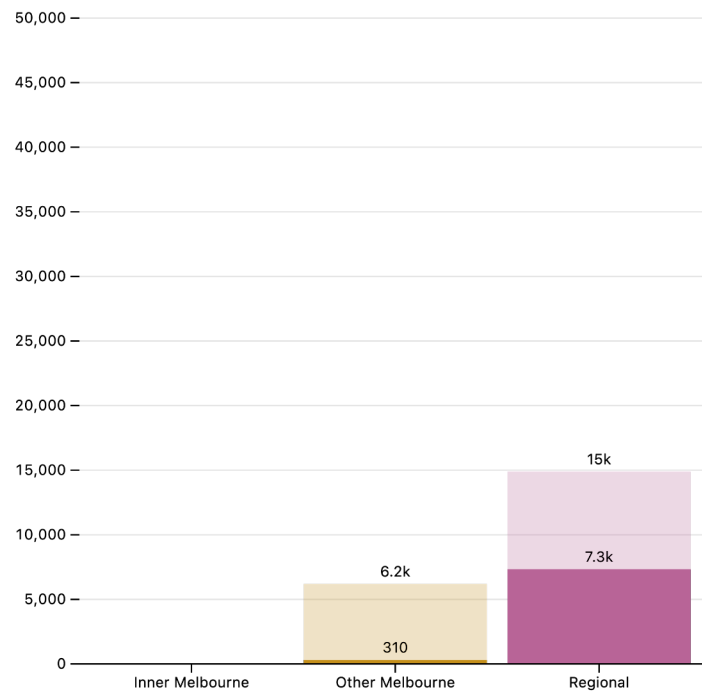
**People without access to ACCOs during the morning peak**

For Aboriginal and Torres Strait Islander people

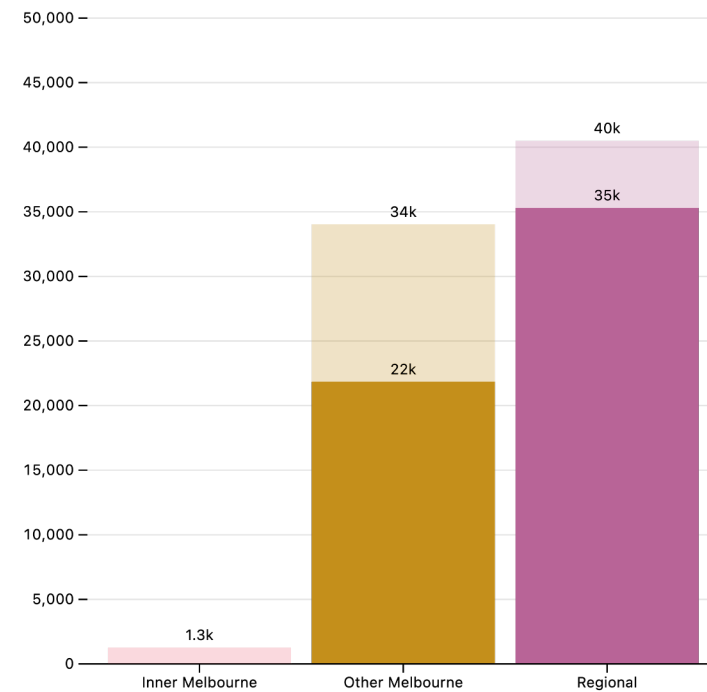
Inner Melbourne Other Melbourne Regional

Within 30 minutes Within 60 minutes

↑ People without access via driving



↑ People without access via public transport





## ACCOs

## Spatial variation in accessibility

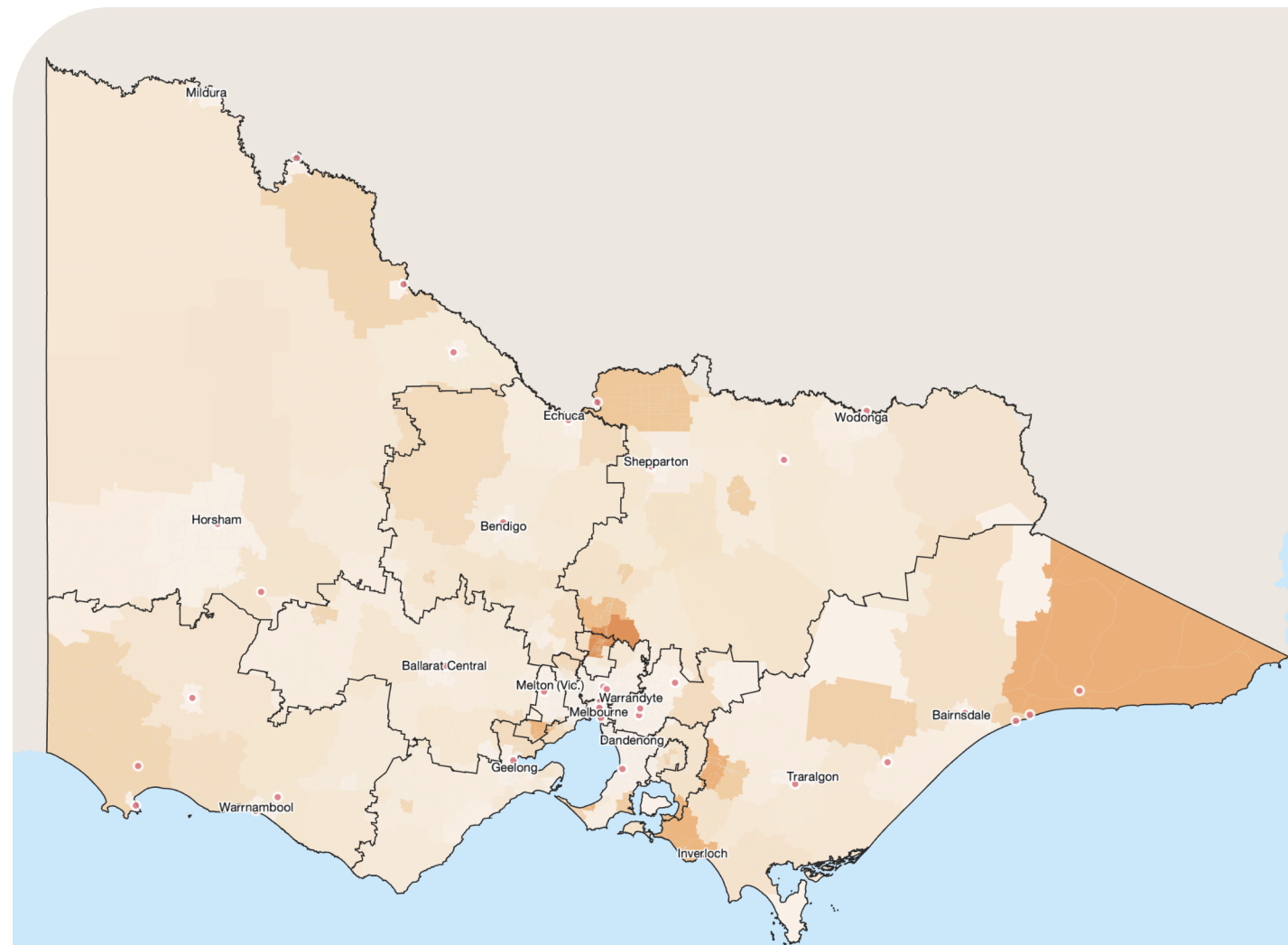
The map to the right shows the total number of people without access to an ACCO within a 30-minute drive during the morning peak by Statistical Area 2 (SA2). The darker an SA2, the more people within that area that lack access under these travel conditions.

SA2s are statistical boundaries defined by the Australian Bureau of Statistics for the purposes of analysis, similar in both concept and size to suburbs.

### People without access to ACCOs via driving within 30 minutes during the morning peak

Total Aboriginal and Torres Strait Islander people without access within each SA2

People without access 0 500 1,000 Facility ●



## ACCOs

## Spatial variations in accessibility

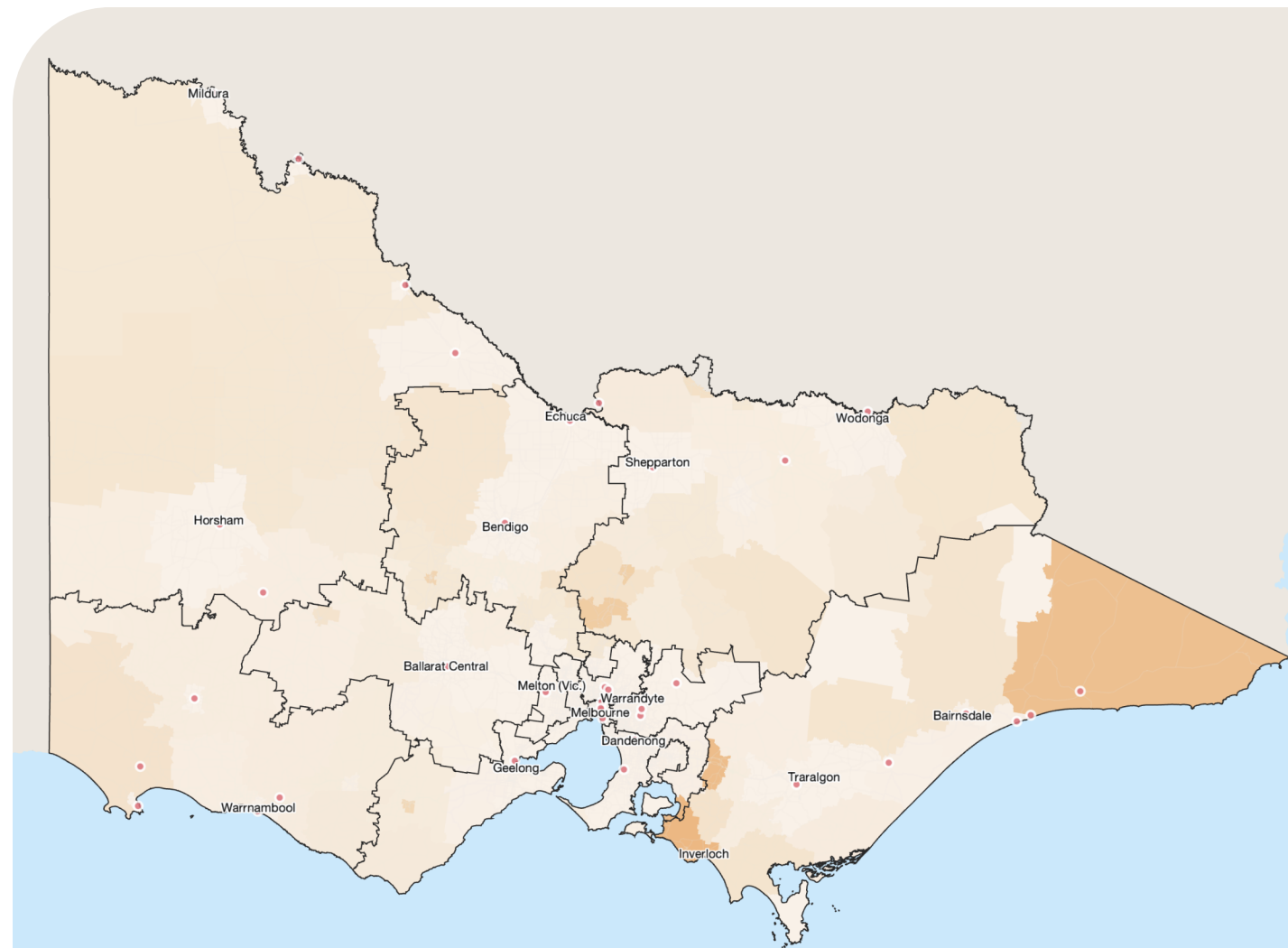
The map to the right shows the total number of people without access to an ACCO within a 60-minute drive during the morning peak by Statistical Area 2 (SA2). The darker an SA2, the more people within that area that lack access under these travel conditions.

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### People without access to ACCOs via driving within 60 minutes during the morning peak

Total Aboriginal and Torres Strait Islander people without access within each SA2

People without access 0 500 1,000 Facility ●



## ACCOs

## Spatial variations in accessibility

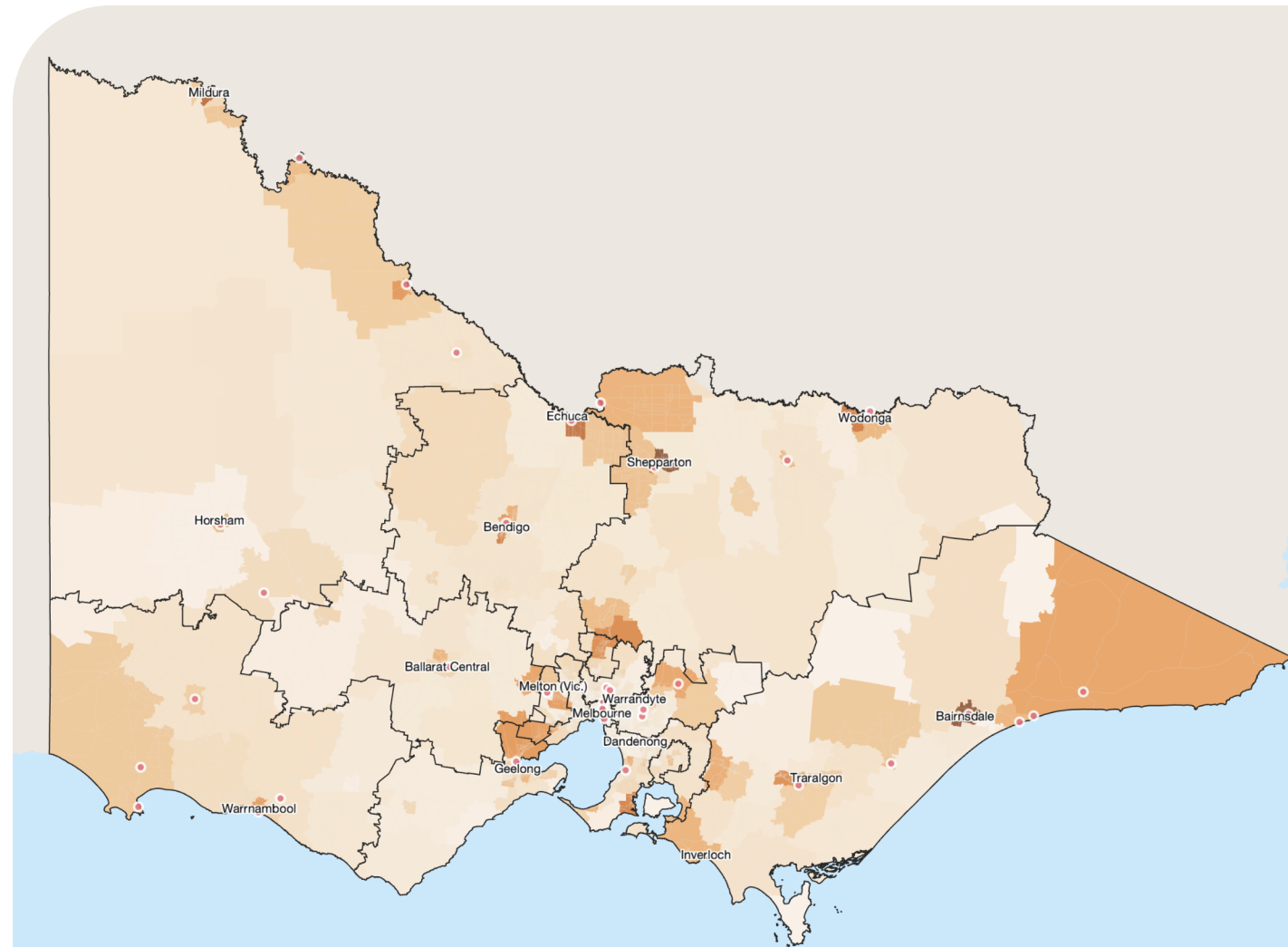
The map to the right shows the total number of people without access to an ACCO within a 30-minute public transport journey during the morning peak by Statistical Area 2 (SA2). The darker an SA2, the more people within that area that lack access under these travel conditions.

SA2s are statistical boundaries defined by the Australian Bureau of Statistics for the purposes of analysis, similar in both concept and size to suburbs.

### People without access to ACCOs via public transport within 30 minutes during the morning peak

Total Aboriginal and Torres Strait Islander people without access within each SA2

People without access 0 500 1,000 Facility ●





## ACCOs

## Spatial variations in accessibility

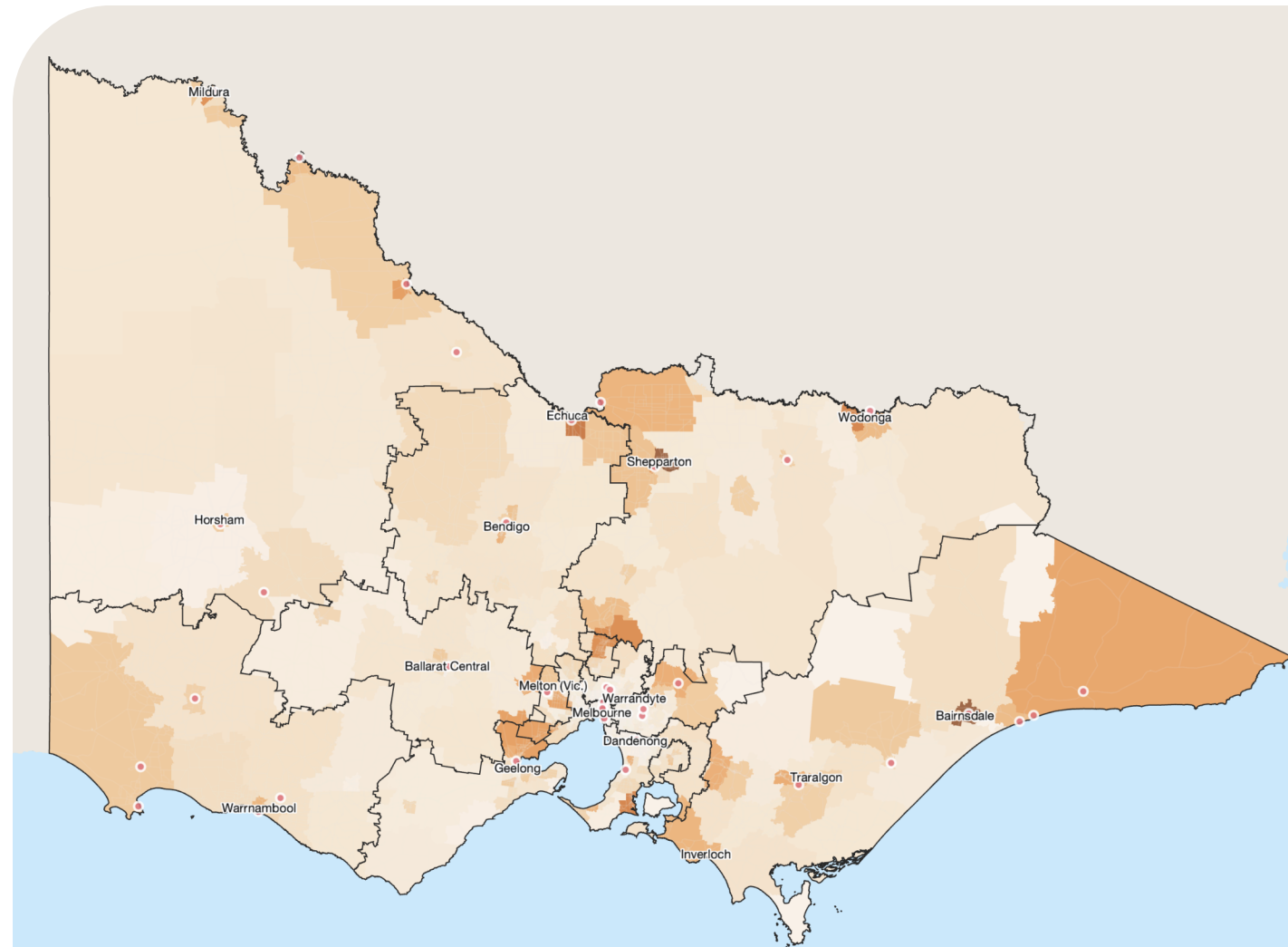
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### People without access to ACCOs via public transport within 60 minutes during the morning peak

Total Aboriginal and Torres Strait Islander people without access within each SA2

People without access 0 500 1,000 Facility ●



## ACCOs

## Rates of provision against accessibility

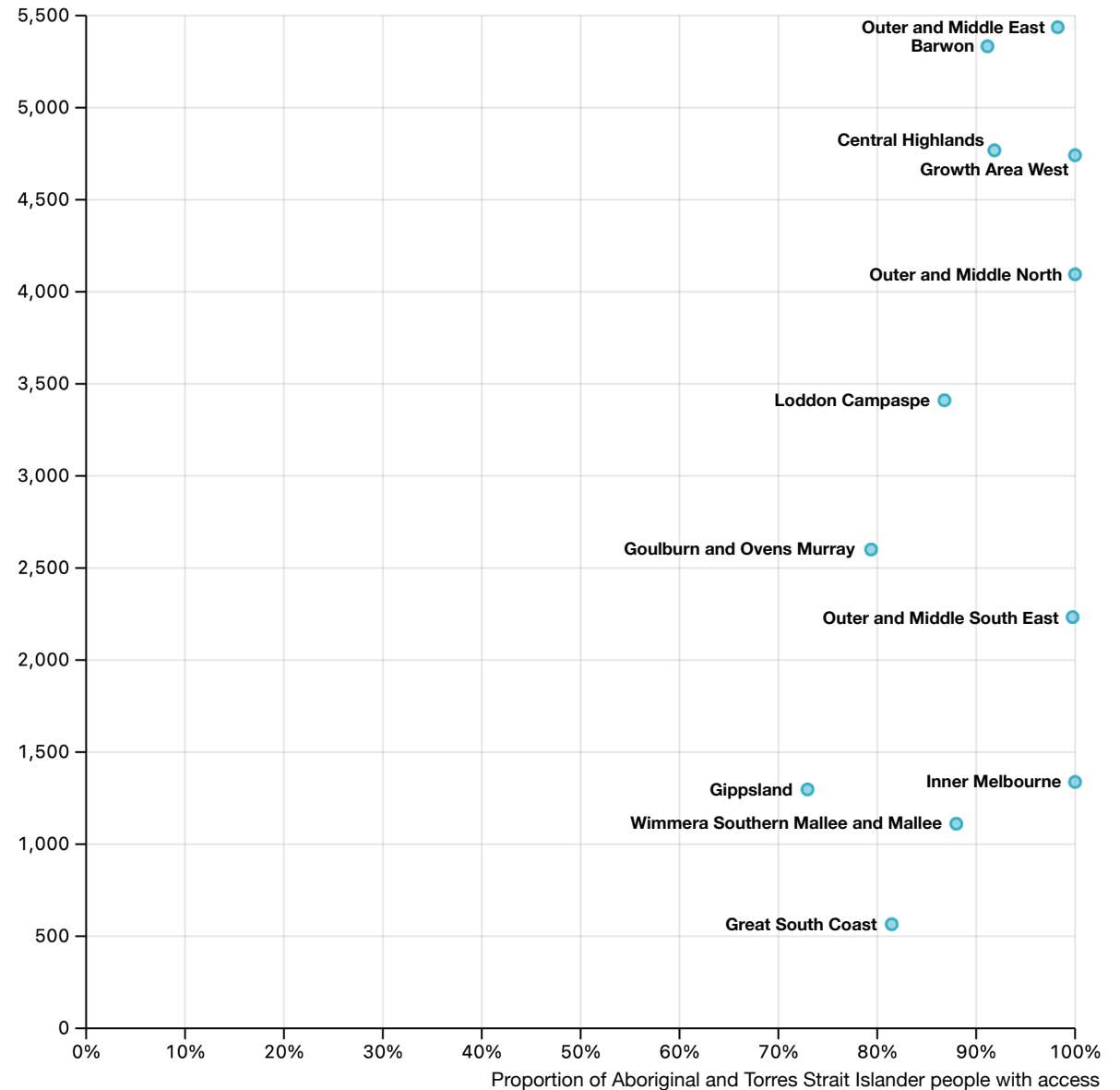
The chart compares the proportion of Aboriginal and Torres Strait Islander people with access to ACCOs via public transport against the number 'sharing' each of those facilities across reporting regions. Access is characterised for morning peak driving journeys within 60 minutes.

The analysis of ACCOs has not considered the services offered by each individual facility. Some reporting regions are missing from the chart because their respective regions do not contain any ACCOs.

### ACCO rates of provision against accessibility

For morning peak driving journeys within 60 minutes

Aboriginal and Torres Strait Islander people per ACCO



## ACCOs

## Rates of provision against accessibility

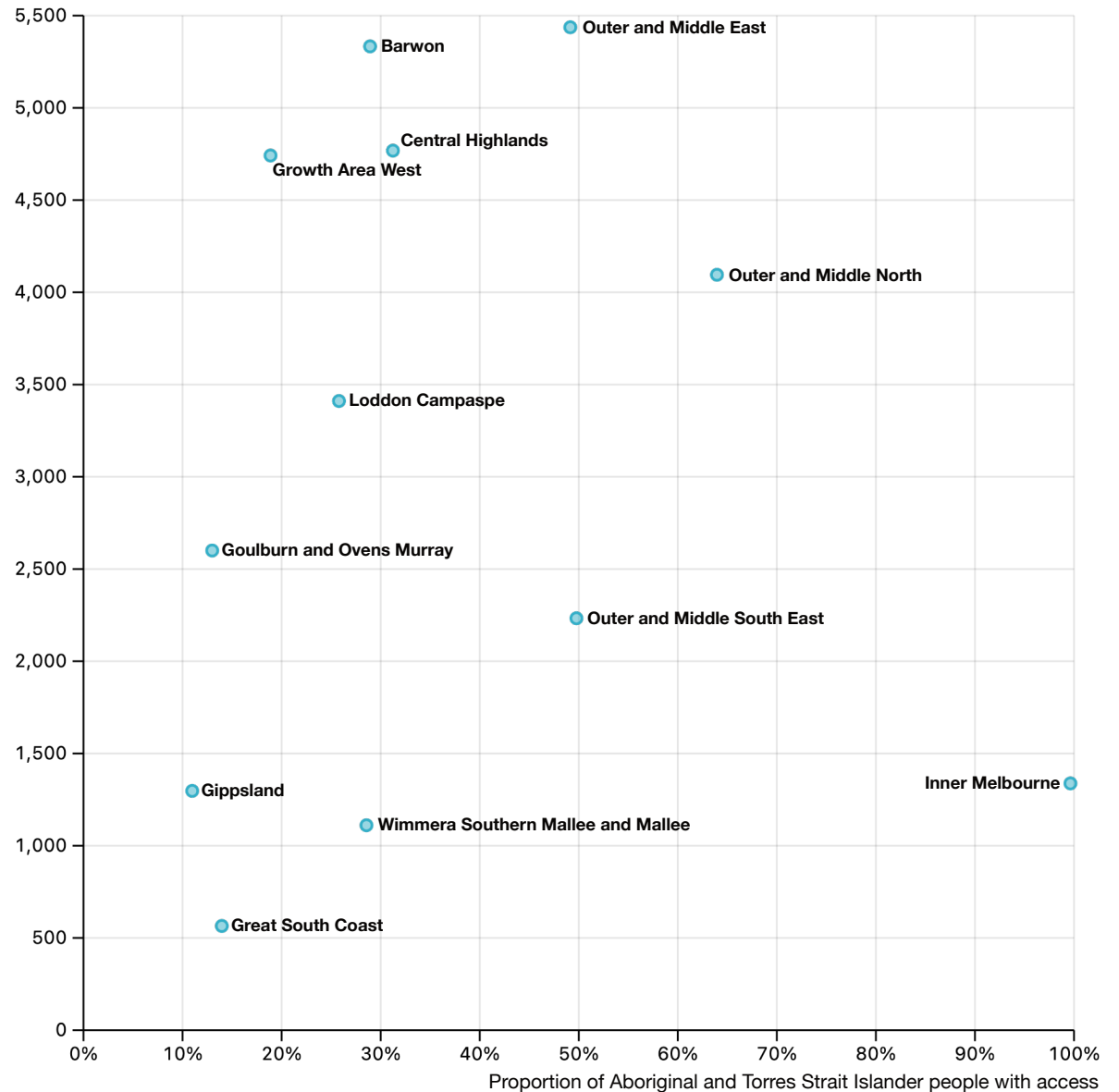
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### ACCO rates of provision against accessibility

For morning peak public transport journeys within 60 minutes

Aboriginal and Torres Strait Islander people per ACCO





## ACCOs

# Statewide accessibility over time

This graphic shows the proportion of Aboriginal and Torres Strait Islander people in Victoria that can access an ACCO during the morning peak within 30 and 60 minutes. Outcomes for both 2023 and 2036 are shown, corresponding with the distribution of Aboriginal and Torres Strait Islander people as specified in VACCHO population projections.

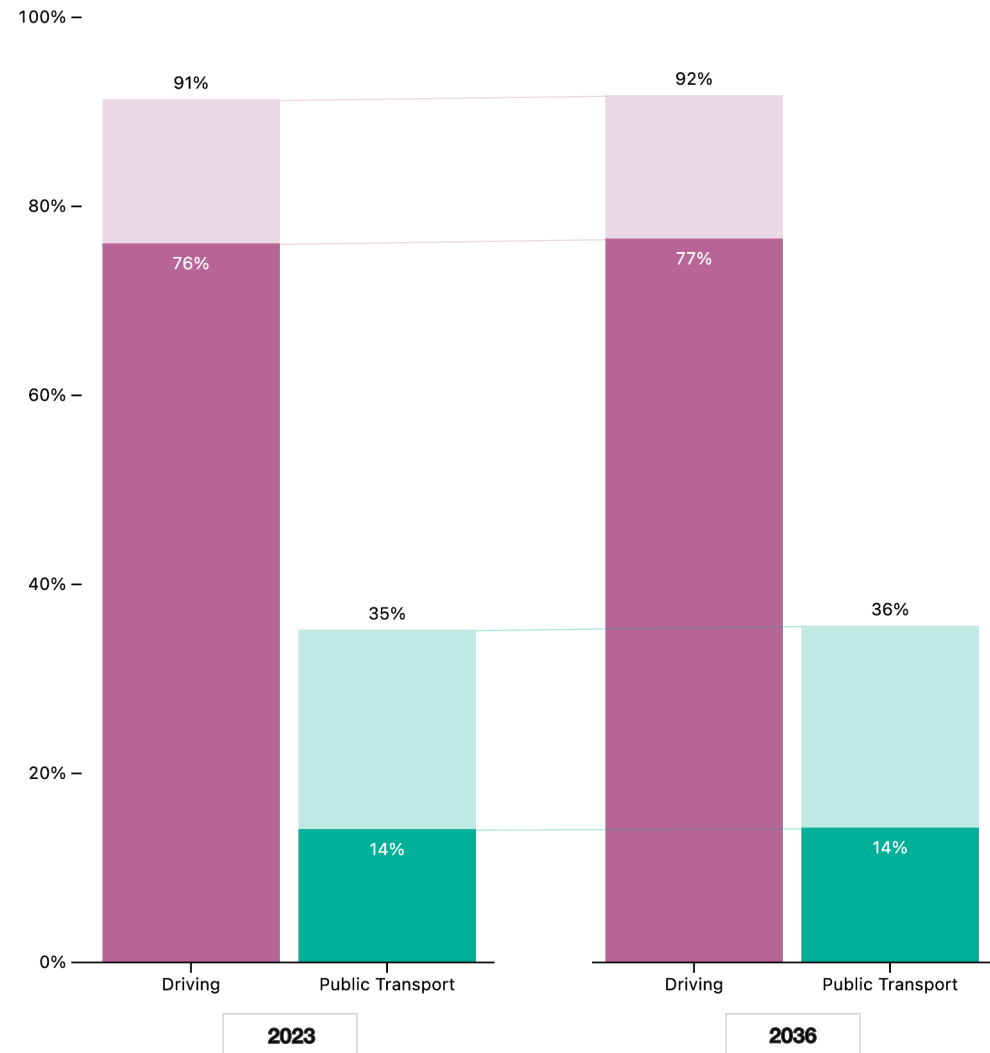
Overall, accessibility is not expected to change going forward based on forecasts of where Aboriginal and Torres Strait Islander people are expected to live by 2036. Using 2023 population figures, 23,000 Aboriginal and Torres Strait Islander people are unable to access an ACCO within a 30-minute drive. This increases to 76,000 without access if using public transport.

Where there is change in accessibility over time, this is because more people are projected to be living closer or farther from existing facilities. This analysis has not included future changes to the provision of additional infrastructure or changes in network conditions.

## Access to ACCOs during the morning peak

Proportion of the statewide population of Aboriginal and Torres Strait Islander people

■ Within 30 minutes ■ Within 60 minutes



## ACCOs

## Accessibility analysis methodology

All analysis conducted in this report used a multi-step methodology to generate outcomes across socio-demographic groups from network accessibility.

1. Locations of *main* and *main regional* ACCO facilities were determined using data provided by VACCHO for this assessment.
2. Travel time isochrones were generated across all facilities for combinations of travel modes (driving, public transport<sup>†</sup>, walking, cycling), time periods (morning peak or inter-peak), and journey time thresholds (ranging from 5 to 120 minutes). These utilised a family of network routing models developed by Arup using a combination of open transport network data and simulated congested travel times derived from the Victorian Integrated Transport Model (VITM).
3. Spatial analysis was conducted to determine the spatial intersection of socio-demographic groups against the isochrones. This was used, for instance, to determine what proportion of the population were able to access a certain type of infrastructure under one of the considered travel conditions.

<sup>†</sup>Public transport travel times include walking required to access and egress from stops.

### Example isochrone analysis visualisation

Facilities shown are not ACCOs.

Travel time threshold (min) 120 60 45 30 15 10 5 Facility ●

