

Background

The journey to work maps are based on the latest information available - the Australian Bureau of Statistics, 2001 Census of Population and Housing.

Respondents aged 15 years and over were asked questions relating to their employment and journey to work. Their addresses were coded to a Collection District of origin, while their workplace addresses for the week prior to census night were coded to a Work Destination Zone. Respondents also provided information on their method of travel to work.

DPLG has mapped this data for the Adelaide Statistical Division to provide an overview of where people live and where they work. Shortest road distances between origin and destination areas were calculated using Geographical Information System (GIS) software. This distance data has been graphed on the journey to work maps, indicating the distribution of distances travelled by persons going to, or residing in a Local Government Area as well as median and average distances travelled.

Data was also obtained about employed persons' gender and age and cross tabulated with Statistical Local Area of origin and destination data. This data was mapped, providing information about the age, sex and destinations of resident employed persons from each Local Government Area.

Data and Methodology

Data Source

In the Australian Bureau of Statistics, 2001 Census of Population and Housing respondents aged 15 years and over were asked questions relating to their employment and journey to work. The addresses of respondents on census night were coded to a Collection District of origin, while their workplace addresses for the week prior to census night were coded to a Work Destination Zone. Respondents also provided information on their method of travel to work. This data was cross-tabulated to create a table of Employed Persons by Collection District of Origin by Work Destination Zone by Mode of Travel.

Study Area

The maps relate to Local Government Areas within the Adelaide Statistical Division.

Census Geography

Collection District (CD) -

Collection Districts (CDs) are the smallest spatial unit used by the Australian Bureau of Statistics (ABS) and generally contain around 220 dwellings in urban areas. There are 2,150 Collection Districts within the study area. Collection Districts can be aggregated to Statistical Local Areas, Local Government Areas and Statistical Divisions.

Work Destination Zone -

Work Destination Zones are designed by the State/Territory transport agency in each state, and vary considerably in area and number of employed persons. There are 312 work Destination Zones within the study area. They can be aggregated to Statistical Local Areas, Local Government Areas and Statistical Divisions.

Statistical Local Area (SLA) -

Statistical Local Areas (SLAs) are general purpose spatial units. There are 54 Statistical Local Areas within the study area. They can be aggregated to Local Government Areas and Statistical Divisions.

Local Government Area (LGA) -

Local Government Areas represent the whole, undivided geographical area of responsibility of an incorporated Local Government Council. There are 19 Local Government Areas within the study area. They can be aggregated to Statistical Divisions.

Statistical Division (SD) -

Statistical Divisions represent large, relatively homogeneous regions. The metropolitan Local Government Areas are within the Adelaide Statistical Division.

Other Spatial Data Sources

Roads, O-Bahn, railways and tramline supplied by Department for Transport, Energy and infrastructure.

Data Adjustment

Some respondents (1,816) were assigned to a 'dump' Work Destination Zone by the Australian Bureau of Statistics if a legitimate Work Destination Zone could not be identified. There were also significant numbers of respondents (12,971) who did not state their work address and could not be coded to a Work Destination Zone. These persons were re-assigned on a pro-rata basis to legitimate Work Destination Zones by DPLG. As a result, totals based on this data will vary from other Australian Bureau of Statistics data.

Calculation of Distances Travelled

To obtain an indication of how far people travelled to work, distances between Collection Districts of origin and Work Destination Zones were calculated. Weighted centroids were created based on the location of dwellings within the Collection Districts, thereby better reflecting where people live within a Collection District than just a spatial mid-point. Using Geographical Information System (GIS) software the shortest road network distance between the Collection District centroid and Work Destination Zone centroid was calculated. Although some persons may have not travelled the shortest distance to their workplace for a variety of reasons (eg detours to drop children at school, public transport routes etc), the shortest road distance provides a good indication of the distances likely to have been travelled and is more useful than Euclidian (straight-line) distance calculations. It is important to take into account that the distance travelled to work isn't always a reflection of the time taken to travel to work. The amount of time a trip takes is dependant on factors such as time of day, traffic, route, speed limits and method of travel. For example, a journey in a private car on the outskirts of the Adelaide Statistical Division can cover a large distance in a relatively short period of time. Conversely, a journey through built-up areas on a bus may be short in distance, but take a relatively long time. For the purposes of this atlas and due to the limitations of the data, only travel distance has been examined. The distance data has been used to produce the graphs on the maps, indicating the distribution of distances travelled to work as well as median and average distances travelled.

Data Issues

Some respondents had work addresses that could not be coded to Work Destination Zones within the study area. Therefore, these persons could not be included on maps showing Work Destination Zones of employed persons. Statistics relating to the number of persons in each of these categories are included within the text on the maps.

Remainder South Australia - 8,481 persons stated that their work destination was somewhere in South Australia outside of the study area. These persons may have either been visitors to the study area or residents who travelled to work outside of the study area.

Remainder of Australia - 3,900 persons stated that they were employed in the remainder of Australia. It is likely that the majority of these persons were temporarily residing in the study area on census night for work or travel purposes etc.

No Fixed Address - 18,512 persons had no fixed work address. Persons in professions such as taxi driving and some trades (plumbers, electricians etc) were in this category.

Gender and Age

Data Source

In the Australian Bureau of Statistics, 2001 Census of Population and Housing respondents aged 15 years and over were asked questions relating to their employment and journey to work. The addresses of respondents' usual places of residence were coded to a Collection District of origin, while their workplace addresses for the week prior to census night were coded to a Work Destination Zone. Respondents also provided information on their gender and age. This data was aggregated to Statistical Local Areas and cross-tabulated to create two tables:

- Employed Persons by Statistical Local Area of Origin by Destination Statistical Local Area by Age Group
- Employed Persons by Statistical Local Area of Origin by Destination Statistical Local Area by Gender

Data Quality

When releasing data the Australian Bureau of Statistics randomly adjusts cells in tables with small values (3 or less) to prevent the risk of releasing information that may identify an individual. As a result, totals may differ with other Australian Bureau of Statistics tables.

Data Adjustment

Some respondents (13,013) did not state their work address and could not be coded to a Work Destination Zone and therefore could not be mapped.