

Driving to work



In Australia, most people travel to work by motor vehicle. Some people combine car travel with other forms of transport, such as public transport and walking. Of the 7.9 million people at work on Census Day (8 August) 2006, 6.3 million (79%) travelled to work by motor vehicle, while 850,900 people (11%) took public transport and 960,500 people (12%) rode a bicycle, walked, worked from home or used some other form of transport.

A higher proportion of Australians travel to work by car than workers in the United Kingdom¹, although workers in the United States of America² and Canada³ are more likely to travel to work by car. High car use for commuting in Australia is partly associated with aspects of Australian urban development since the Second World War. In the 1950s and 1960s, state and territory governments established or expanded road construction authorities, and highway and freeway building often took precedence over expansion of public transport services. At the same time, Australia's population was growing rapidly, particularly in

cities, with accompanying development of new suburbs, and as a result, Australian cities typically have low population densities. Living further from work and amenities brought about increased car use.⁴

This strong preference for cars and other motor vehicles arises in part from the accessibility, flexibility, and convenience they provide.⁵ In association with commuting, many people use their cars for other functions during the day. These may include: transporting children to and from school; travelling to more than one work location through the day; making unscheduled trips, such as visits to elderly relatives needing care or picking up sick children; and incorporating shopping before or after work. As well, motor vehicles are sometimes considered the only transport option, as some workplaces are not easily accessible by public transport.

However, high use of motor vehicles for commuting has both economic and social effects. Traffic congestion caused by the extensive use of motor vehicles at peak times places pressure on road infrastructure and reduces people's time at work.⁶ Traffic congestion can also affect individuals and families through the reduction in time for other activities.⁵

In addition, high levels of motor vehicle use—including for commuting—are often associated with detrimental effects on the environment and health. These effects include air pollution, greenhouse gas emissions (motor vehicle use made up almost 14% of Australia's emissions in 2005⁷), and impacts on health due to accidents.⁸

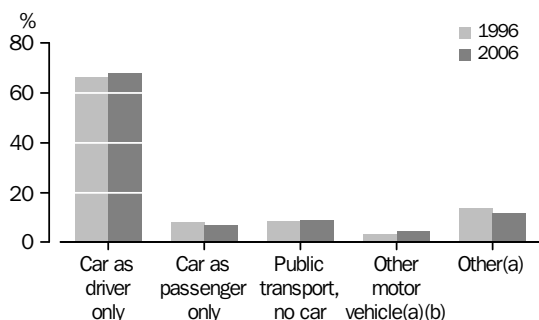
Travel to work: selected modes, 2006

Method of travel to work	%
One or more methods	
<i>Travelled by motor vehicle, with or without other mode</i>	79.2
Drove a car, with or without other mode	69.6
Rode as passenger in a car, with or without other mode	7.6
Public transport (any kind), with or without other mode	10.7
Sole method	
<i>Travelled by motor vehicle only</i>	77.0
Drove a car only	68.0
Rode as a passenger in a car only	6.7
Public transport only (any kind)	8.9

Motor vehicle: Travel by motor vehicle includes: Car as driver, Car as passenger, Truck and Motor cycle/motor scooter. It excludes travel by taxi.

Public Transport: Travel by public transport includes travel to work by bus, tram, ferry, train and taxi.

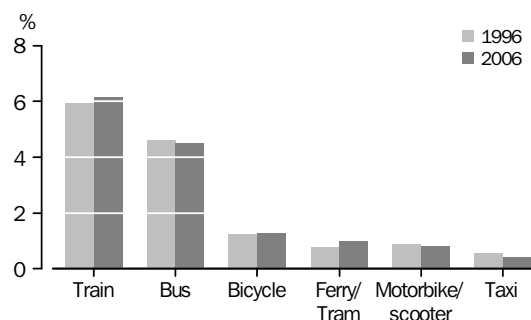
Modes of travel to work, 1996 and 2006



(a) For 1996 data, travel to work by truck is included in 'Other'; in 2006 it is included in 'Other motor vehicle'.

(b) 'Other motor vehicle' includes car travel with other modes such as public transport.

Non-car modes of travel to work, 1996 and 2006(a)



(a) On the day of the Census in 1996 and 2006.

Changes in motor vehicle commuting

There was little change in the proportion of motor vehicle commuters between Census Days in 1996 and 2006, increasing from 78% to 79% of all those who were at work on those days. That said, the number of car drivers increased by 999,700 people, and there were 8,100 fewer car passengers. The proportion of people who combined motor vehicle use with public transport was stable, at 1.7% of all those who were at work on Census Day in 1996 and 2006.

Of the 6.3 million people who travelled to work by motor vehicle, 86% drove a car to work without using any other form of transport; 8% travelled to work as passengers in cars without any other mode; 3% travelled by truck or motorcycle/scooter without travelling by car; and 2% combined car travel with public transport.

In addition to a larger number of people commuting by motor vehicle, the average length of these journeys to work increased. For the 12 months ended 31 October 2006, the Australian Bureau of Statistics (ABS) Survey of Motor Vehicle Use reported that each passenger vehicle travelled an average of 8,100 kilometres to and from work.⁹ This compares with an average of 6,600 kilometres for the 12 months ended 30 September 1995.¹⁰ Average distances also increased for motorcycles and trucks.

...changes in public transport

Over the same time period, the proportion of people who travelled to work by train rose only marginally, from 5.9% in 1996 to 6.1% in 2006, but this represented an increase of 92,500 people. Bus travellers decreased slightly in proportion, from 4.6% to 4.5%, but increased by 54,200 people. The proportion of bicycle riders to work increased from 1.2% to 1.3% (up 18,300) and people who travelled to work on trams and ferries increased from 0.8% to 0.9% (27,300). As a proportion of commuters, travel by motorbike/scooter declined slightly, from 0.9% to 0.8%, despite a small increase in numbers (up 7,900). Taxi use also declined, from 0.5% to 0.4% (down 3,200 people).

Mixed modes of travel to work

Many people travel to work using more than one mode of transport. For instance, some people may get a lift to a railway station, from where they complete their journey by train.

In this article, unless specified, information on individual modes of transport includes those who used this mode and other modes as well. For instance, on Census Day 2006, 5.5 million people drove a car to work. This included 123,200 people, or 2.2%, who used another mode as well, such as public transport, passenger in a car, or bicycle.

Patterns of commuting

...across Australia

Modes of travel to work in different parts of Australia generally reflected differences in population density, provision of transport infrastructure, and distances travelled by commuters.

People living in inner city regions¹¹ were less likely than those in larger geographic regions or areas with lower population densities to drive to work by car, and were more likely to make use of public transport.

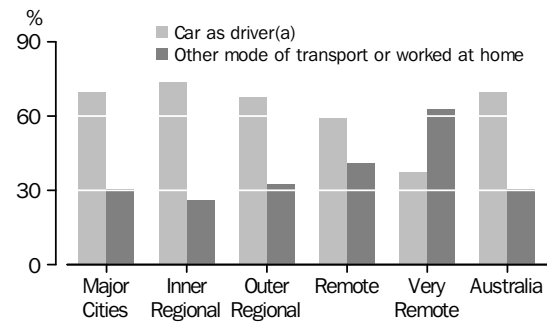
Inner Sydney and Inner Melbourne had the two lowest proportions of residents who commuted by motor vehicle: 45% and 48% of all people at work on Census Day 2006, compared with 79% for the whole of Australia. The highest proportion of all inner city regions was in Central Metropolitan Perth (69%), which was closer to the Australian average.

The highest proportions of public transport use were in Inner Sydney (33%) and Inner Melbourne (27%), while Central Metropolitan Perth at 14% was close to the 11% recorded for Australia overall. These variations in commuting methods across cities are likely to be influenced by the availability, quality, and variety of public transport in inner city areas of Australia, as well as the relative inconvenience and cost of driving in these areas, due to factors including congestion and limited parking.

On Census Day 2006, workers living in regions on the outskirts and outside of major capital cities were most likely to travel to work in motor vehicles. Such regions included South Eastern Melbourne, Ipswich City—west of Brisbane, and Hunter, which includes Newcastle—north of Sydney (each with around 88% of commuter trips by motor vehicle). These regions have high proportions of people working in areas not accessible by public transport.

People who lived in Remote and Very Remote areas had quite different patterns of travel to work from those of the country as a whole. Of those who were at work on Census Day 2006, only 59% of those living in Remote areas drove a car to work, and only 37% of those in Very Remote areas did so, compared with 70% of people across the country who were at work. Instead, 18% of workers in Remote or Very Remote areas walked to work with no other form of transport, compared with 5% of those at work across Australia. This is partly because

People who drove a car to work, Remoteness Areas

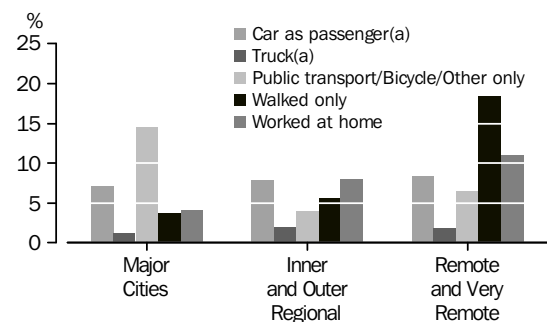


(a) Includes car as driver in combination with any other mode of transport.

many people working in Remote and Very Remote areas live within walking distance of their place of employment, including farming properties.

In certain regions of Australia, workers were more likely than those in other areas to travel as passengers in cars. For example, Mackay-Fitzroy-Central West, in regional Queensland, had the highest proportion of any region, with 10% of all those at work on Census Day 2006 travelling as passengers, compared with 8% across Australia. This area contains a small number of mining companies that employ many of the residents in the area. In contrast, workers living in Central Highlands-Wimmera, in regional western Victoria, had many more employers in a wider range of locations, including farmers on their own properties, and consequently a lower proportion travelling as passengers (7%). However, regions with the lowest proportions of car passengers travelling to work were inner urban areas with high levels of public transport use.

People who travelled to work by other modes of transport, Remoteness Areas



(a) Includes these modes in combination with any other mode of transport except Car as driver, so travellers may be included in more than one category.

Although nationally, relatively few people travelled to work using a combination of motor vehicle and public transport—133,800 or 1.7% of all people at work on Census Day 2006—it was more common in outer Sydney regions. These regions included Central Northern Sydney (4.4%), Outer South Western Sydney (3.7%) and North Western Sydney (3.3%). These regions contain major road, rail and bus nodes with parking facilities, in centres such as Hornsby, Campbelltown, Blacktown and Penrith.

...by age and sex

Young workers' and older workers' use of motor vehicles for commuting differed from that of other workers. Those aged 15–19 years were most likely to be passengers in a car (33% of all 15–19 year old workers on Census Day 2006) and the least likely to drive a car to work (43%). Young male workers were more likely to drive a car to work than young women workers (46% of young men compared with 40% of young women workers aged 15–19).

Working people aged 55–64 were slightly more likely than all working people to drive a car to work (71% compared with 70%), but workers aged 65 or more were less likely to drive to work (54%). In contrast, people aged 35–54 were more likely to drive a car to work: 74% of all those in this age group at work on Census Day 2006. This was related to the *higher incomes* of people in this age group (see personal income section, this page) as well as the need for parents to combine work and family responsibilities.

The use of trucks and motorbikes/scooters was higher for men than women, with 2.8% of men driving a truck to work compared with 0.1% of women. The same was true of Motorbikes and motorscooters: 1.3% of men and 0.2% of women rode to work by motorbike or motor scooter.

...for life-cycle groups

For all life-cycle groups, driving a car was the predominant form of travel by people who worked on Census Day 2006 (see Glossary for descriptions of life-cycle groups). People in families with *young children* or *school aged children* were among the life-cycle groups most likely to drive a car with no other form of transport (between 72% and 74% of people travelling to work). This is consistent with parents dropping off their children at child care or school on their way to work.

People in *middle-aged couple families without children* were also quite likely to drive a car to work without any other means of transport (69% of workers in this group). This was in part related to their location, as they were more likely than others to live outside capital cities, where there are generally fewer public transport options.

...according to personal income

People in different *personal income* groups used different means of transport to work. Those on *lower incomes* (that is, gross personal incomes of \$1–\$399 per week) were less likely to commute by motor vehicle than other workers: 72% of those on *lower incomes* who worked on Census Day 2006 compared with 79% of all workers.

Those on *lower incomes* were almost as likely to use public transport (10%) as all workers (11%). However, they were more likely to walk to work as their sole mode of transport (8%) than all workers (5%) and to travel as passengers in cars (14% compared with 8% for all workers).

Workers with *higher incomes* (\$1,000 or more per week) and *middle incomes* (\$400–\$999) were equally likely to drive a car to work as their sole mode of transport, 71% of both groups. Despite the perception of public transport as a cheaper form of travel^{12, 13}, people on *higher incomes* were more likely to use public transport (13%) than all workers (11%). This was particularly true for those with a bachelor degree or above as their highest level of qualification (18%) and Commonwealth Government employees (19%). Many people on higher incomes have the means to live in areas where public transport services are more convenient, or areas closer to their workplaces.

...in occupations

The kind of work people do can affect how they travel to work. Occupations with high proportions of people who only drove a car to work included School teachers (86% of workers in this occupation who were at work on Census Day 2006), Real estate agents, Education, health and welfare services managers, and Medical practitioners (85% each, compared with 68% of all workers). These are occupations where driving to customers or multiple work locations is necessary, or where workplaces are decentralised or shift work requires the flexibility and security a car offers.

People travelling as passengers in cars as their sole method of commuting were more likely to be in occupations which were low skilled, had a younger than average age profile, and paid lower-than-average incomes. Occupations with higher than the 7% average of travellers as passengers in cars included Checkout operators and office cashiers (24%), Food preparation assistants (21%), and Freight handlers and shelf fillers (17%).

Not surprisingly, Truck drivers had the highest proportion of people who travelled to work by truck (23%), followed by Delivery drivers (14%), and Construction and mining labourers (10%). Motorcycle/scooter travellers were most common among Defence force members, Fire fighters and police (3.2%), and Clerical and office support workers, which includes Couriers and postal deliverers (2.3%).

...according to hours worked

The length of time people spend at work can affect the way they travel to work. The proportion of people who drove a car to work on Census Day 2006 rose with increasing numbers of hours usually worked in the week prior to the Census, from 50% of those who worked 1–9 hours, to 74% of those who worked 50–59 hours.

For those who worked even longer hours, the proportion driving cars to work on Census Day declined, to 55% of those who worked 70 hours or more in that week (136,500 workers). This may be due to the unusual demands of a job that involves such long working hours. Many people who usually worked 70 hours or more were Managers, who walked to work or worked from home on Census Day. Some of these may have been away from home for work and walked from their temporary accommodation

Distribution of hours worked by employed people who drove a car to work



to their place of work. As well, many people working very long hours may have been shift workers and thus temporarily resident at or near their place of work.

People who worked part-time were less likely to drive a car to work (65%) but more likely to travel to work as a passenger in a car (10%). This pattern is similar to that of people on lower incomes.

Endnotes

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3 Statistics Canada 2007, *2006 Census: Data Products: Highlight Tables: Employed labour force by mode of transportation, both sexes, 2006 counts, for Canada, provinces and territories of residence – 20% sample data*, viewed 25 July 2008, <<http://www12.statcan.ca/english/census06/data/highlights/POW/Table603.cfm?Lang=E&T=603&GH=4&SC=1&SO=99&O=A>>.

4 Alexander, I. 2000, 'The Post-War City' in *The Australian Metropolis: a Planning History*, edited by Hamnett, S. and Freestone, R., St Leonards NSW: Allen and Unwin, 2000, p. 98–112.

5 NSW Ministry of Transport, 2007, *2005 Household Travel Survey Summary Report*, Transport Data Centre, NSW Ministry of Transport, Sydney.

6 Bureau of Transport and Regional Economics (BTRE) 2006, *Estimating urban traffic and congestion cost trends for Australian cities*, Working Paper No. 71, BTRE, Canberra.

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8 Australian Transport Safety Bureau (ATSB) 2006, *Road Deaths Australia, 2006 Statistical Summary*, ATSB, Canberra.

9 Australian Bureau of Statistics (ABS) 2007, *Survey of Motor Vehicle Use, Australia, 12 months ended October 2006*, cat. no. 9208.0, ABS, Canberra.

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10 ABS 1996, *Survey of Motor Vehicle Use, Preliminary, Australia, September 1995*, cat. no. 9202.0, ABS, Canberra.

11 In this article the term regions and the areas referred to are Statistical Regions. For more information see *Statistical Geography: Volume 1—Australian Standard Geographical Classification (ASGC), 2006*, cat. no. 1216.0, ABS, Canberra.

12 Litmann, T. 2007, *Evaluating Transportation Equity*, Victoria Transport Policy Institute, Victoria, Canada.

13 Fritze, J. 2007, *You Might Just as Well Stay at Home: Young Mums and Transport in Victoria*, Victorian Council of Social Service, Melbourne.