



chapter 2

2. mobility matters

Melburnians value their mobility very highly and expect the city's transport network to keep pace with their travel requirements – requirements that will grow and change along with the city.

2.1 Melbourne's transport network

As well as moving people, Melbourne's transport network services the needs of business and industry by moving goods coming into and leaving the city. While the network cannot meet each and every demand for travel, the city's roads, trains, trams and buses generally provide a reasonably good standard of service for passengers and freight – although the network is clearly under increasing pressure.

Despite criticisms of the transport network, it has served Melbourne well over the years and has many positive characteristics, including the capacity to move large numbers of people to and from the city centre during peak periods and a well-established public transport system that is growing in patronage and accessibility. Compared to many other cities around the world, Melburnians are fortunate to have access to a modern transport network that is generally safe and reliable – although the network clearly has some weak points and inefficiencies.

Melbourne's transport network comprises the road network, public transport systems (rail, tram and buses), walking and cycling infrastructure and freight hubs such as the Port of Melbourne and Melbourne Airport.

The network comprises:

- Around 3,400 km (11,000 lane-km) of multi-lane freeways, tollways and arterial roads
- 430 km (742 track-km) of rail lines
- 245 km (490 track-km) of tram lines
- 5,300 route-km of bus routes.

Table 4 shows the distribution of this infrastructure in terms of inner, middle and outer Melbourne, and clearly shows the domination of road infrastructure in the outer suburbs.

Figure 18 – Melbourne's transport network

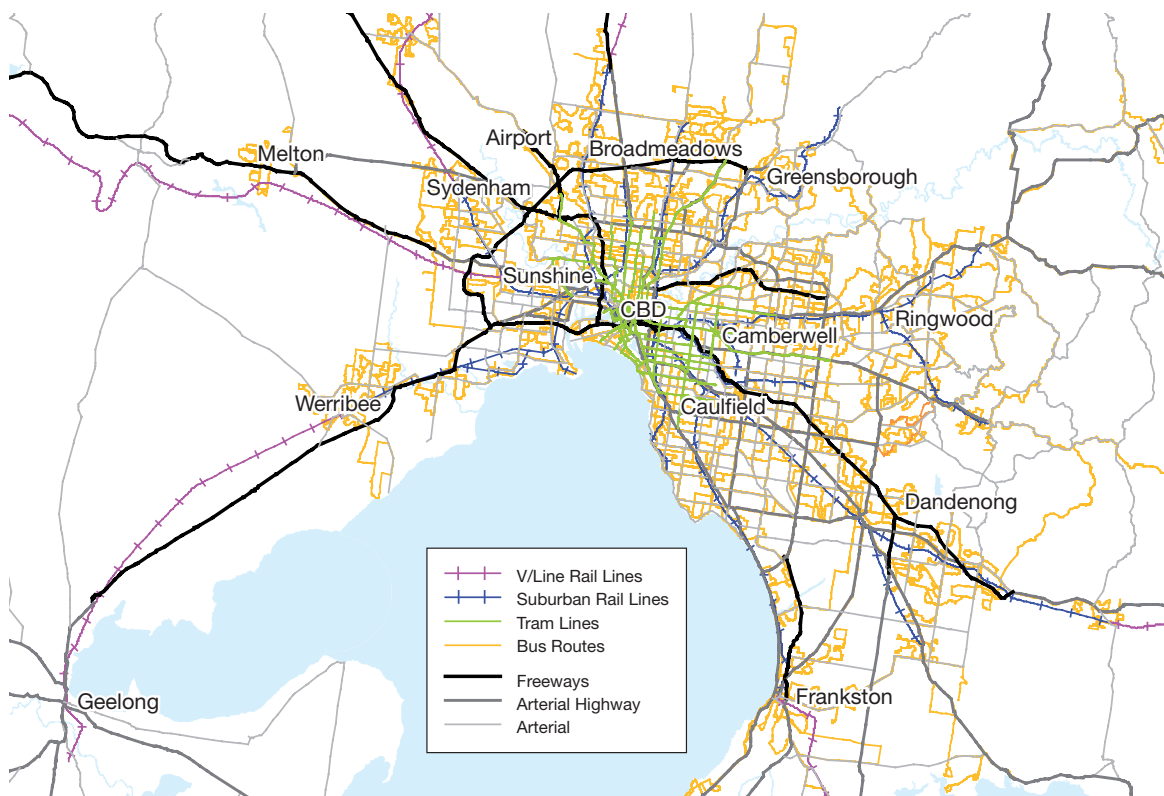


Table 4 – Transport infrastructure across Melbourne

		Inner	Middle	Outer	Total
Road lane km	Freeways, tollways	140	450	1,130	1,720
	Major highways	30	280	1,390	1,700
	Primary arterials	200	1,180	3,140	4,520
	Secondary arterials	150	600	2,330	3,080
	Collectors	150	1,020	2,180	3,350
	Local streets	1,260	11,450	22,400	35,110
	Total	1,930	14,980	32,570	49,480
	Freeways, highways & arterials	520	2,510	7,990	11,020
Bus	Route km (one direction)	386	1,979	2,954	5,319
Tram	Line km (one direction)	188	300	2	490
Train	Line km (one direction)	88	418	236	742

Source: EWLNA (SKM Maunsell et al)

Detailed descriptions of the history and characteristics of Melbourne's transport network are available from a variety of sources and the Study Team has not attempted to replicate these accounts.¹ The following section provides a brief overview of the history of the network, while short descriptions of the public transport, road and cycling networks relevant to the EWLNA are set out in Chapters 3 and 4.

2.1.1 Growing with the city

Melbourne's transport network has played a critical part in growing, shaping and reshaping the city over the last 150 years. From the late 19th century, the network has developed largely along radial lines, extending further and further out from the city centre as Melbourne has grown and expanded. The radial nature of the network first took shape in the 1880s when strong jobs and business growth in the CBD was accompanied by the rise of 'suburbanisation', as many middle class people chose to move from 'bustling' inner Melbourne to the more 'tranquil' suburbs.

Melbourne's early growth and development was supported by the city's public transport system, with the suburban railway network more than doubling in length during the 1880s – extending mainly to the eastern and south eastern suburbs. Growth in the public transport system slowed during the Great Depression, although the system was heavily used during the Second World War.

While the desire for car travel was increasing during these years, the cost of buying and running a car remained out of most people's reach. As late as 1951, only one in eight Melburnians owned a car and around 60 per cent of journeys to work were made on public transport. It wasn't until the 1950s, when Melbourne experienced another boom period, that car ownership soared and public transport use dramatically declined.

The significant take-up in car travel in the 1950s and 1960s further changed the shape of the city, extending the perimeter of Melbourne's suburbs well beyond the train and tram lines laid down in the late 19th century and reinforcing the suburban growth of the pre-war years. It also transformed Melbourne from a city of pedestrians, cyclists and train travellers into a city dominated by the car.

This domination was further entrenched by Melbourne becoming Australia's car manufacturing capital during the 1950s, with General Motors commencing production at Dandenong in 1951 and Ford establishing operations at Broadmeadows in 1956.

1. See for example: *Melbourne Miles* by Max Lay for a detailed history of the development of the city's road network and Graeme Davison's *Car Wars* for an account of the role of cars in the growth of Melbourne. A history of the city's public transport network can be found at the Department of Infrastructure website: www.doi.vic.gov.au. A more detailed examination of the various components of Melbourne's transport network is also set out in a report prepared for the EWLNA: SKM Maunsell/Evans and Peck (2008a), *Transport Supply and Demand (Existing and Future)*

By the 1960s, rising car ownership was causing traffic congestion across the city and an escalating road accident toll. Reflecting concerns that Melbourne's roads could no longer cope with the growing demand for car travel, the city entered a period of extensive freeway development that included the construction of the Tullamarine, West Gate and Monash Freeways, and the extension of the Eastern Freeway, from the late 1960s to the mid-1980s. This period was characterised by community conflict over specific freeways and the general future direction of Melbourne's transport network. Many large road project proposals were shelved and reservations deleted following this period, until freeway building experienced something of a 'revival' in the 1990s, with the earlier radial freeways being complemented by the construction of CityLink, the Western Ring Road and – more recently – EastLink.

Over the last 30 years, Melbourne has also seen major developments in public transport, including the underground rail loop, multimodal ticketing and the extension of the tram and bus networks. However, while there has been substantial investment in large scale road projects in recent years, public transport investment has remained relatively modest, with no large scale project undertaken in the city since the construction of the City Loop in the 1970s and early 1980s. Most commentators agree that the primary force in shaping postwar Melbourne has been the rise in car travel – and the accompanying pressure to extend and enhance the road network.

Over the years, Melbourne has benefited from the foresight and vision of its transport planners and of successive state governments. In the 1970s, in response to the escalating road toll, Victoria led the world in the introduction of road safety initiatives such as compulsory seat belt wearing, random breath testing and .05 blood alcohol limits. This same era delivered substantial investment in major pieces of transport infrastructure – notably the West Gate Bridge and City Loop – at a time when the state's financial position was considerably less robust than at present.

The EWLNA Study Team believes that foresight and vision continue to be vitally important to Melbourne's transport future – and that a renewed commitment should be made to delivering the modern transport infrastructure and projects needed to keep pace with the growth and change taking place across the city.

The City Loop

In June 1970, the Leader of the Opposition, Mr Holding, asked the Minister of Transport:

“Now that parliament has been told that the Government intends to proceed with the underground rail loop, can the Minister of Transport inform the House how it is proposed to finance the project?”

The Minister of Transport, Mr Wilcox, replied:

“I cannot inform the House as to the financing of the underground rail loop, but I have no doubt that at the proper time everybody in the community will know exactly what is happening.”²

It is an exchange unlikely to be repeated in a modern parliament. But it does reflect the bold and farsighted nature of the decision taken in 1970 to commence construction on the Melbourne Underground Rail Loop.

At the time, Victoria's economy was in poor shape. There was talk of spending cutbacks in many areas, the Commonwealth Loan Council was placing constraints upon the states' ability to borrow funds and many capital expenditure programs were being pruned.

The role of Melbourne's CBD was changing, with some commentators convinced that the CBD was in decline as a centre of employment and activity. Back in 1970, the CBD was represented by the 'Golden Mile', an area even smaller than the 'Hoddle grid', with decision makers seeing little potential for expansion outside this area (with the possible exception of the RMIT). The future impact of technology on work patterns was also creating significant uncertainty.

2. Victoria, *Parliamentary Debates*, Legislative Assembly, 17 June 1970, p.49

The state's railways were a source of constant concern for the government. Many people believed that the rail network was in terminal decline, with patronage decreasing for many years and motor car use growing rapidly. Other than some electrification works, there had been no extensions to the rail network in the preceding 15 years. Faced with increasing operational losses, the Victorian Government offered to hand over ownership and control of the state's railways to the Commonwealth at no cost: the Commonwealth declined the offer. The Commonwealth also declined requests from Victoria and New South Wales for assistance to pay for major rail extensions.

While the times were uncertain ones for decision makers in Victoria, the push for an underground rail loop was driven by two factors:

- First, the capacity of Flinders Street Station was a constraint on the operations of the rail network, with most services terminating at the station and then having to reverse out. In peak periods, this severely restricted the number of trains that could use the station.
- Secondly, with train services centred around one central location, there was a considerable crush of people approaching and leaving Flinders Street Station in peak times. The planned Loop aimed to relieve this pressure by converting the Melbourne rail terminal into a five-station complex.

While the Loop was responding to congestion and population growth, it also sought to address future growth, with forecasts at the time showing Melbourne's population reaching 3.7 million in 1985. In reality, it took another 20 years to reach that figure, but it was apparent back in 1970 that the city would face acute growing pains in coping with an increasing population if Melburnians' mobility needs could be met only by car travel. Rail transport was seen as a critical part of the overall transport solution.

The concept of the Underground Rail Loop was not new. Variants had been discussed for over 40 years and it was a key recommendation of a six-year review of the transport network that culminated in the 1969 Metropolitan Transport Plan. Nor was the Loop the only suggestion to solve the city's transport problems. Other ideas with much lower costs were favoured by some, but the Loop proposal stood out as a solution not just to the constraints at the time, but as a way to improve service, double capacity and shape the future of the city.

Given the financial constraints of the time, financing the Loop was a difficult task. The Government proposed the establishment of an authority to borrow the funds required for construction. The cost of the project would be shared by those that stood to benefit most, with equal quarter shares contributed by rail users, the City of Melbourne (on behalf of property owners in the City), the Melbourne Metropolitan Board of Works (on behalf of property owners in Melbourne's suburbs) and the Victorian Government (on behalf of the people of Victoria).

Rail users were to be charged a levy of one cent per journey (at a time when 50 cents was a common ticket cost). The MMBW \$20 million share was to be met out of the Metropolitan Improvement Fund (levy), perhaps at the expense of road funding, and the City of Melbourne was free to meet its share as it saw fit. One reason for seeking a contribution from the City of Melbourne was that its constituents would benefit ultimately from the increase in land values generated by the Loop.

The estimated cost of the Loop was \$80 million, with construction planned to take seven years. A review of Annual Reports for the Melbourne Underground Loop Authority shows that the actual cost was in excess of \$400 million and that stations opened progressively from 1981 to 1985. The contributions from the MMBW and the City of Melbourne were never increased beyond the original \$20 million: ultimately, the State of Victoria funded the cost increase.

Other ideas were canvassed for financing the Loop. These included the use of special lotteries and the compulsory acquisition of land likely to increase in value as a result of the Loop's construction, with the Victorian Government later selling the land at a profit. The idea of motorists contributing to the cost of public transport in order to reduce road congestion was also considered.

The Loop was finally completed in 1985 with the opening of Flagstaff Station. Today, it is hard to imagine Melbourne coping without the Loop. Like many major infrastructure projects, its construction and financing were difficult and controversial at times, but there is no doubt that it has served Melbourne very well – only now approaching capacity, more than 20 years after its completion.

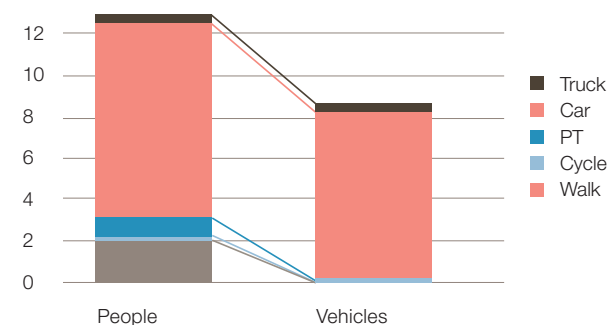
2.2 Current demand for travel

Melburnians move around the city for a variety of reasons – for work, education, business, shopping, visiting family and friends, and sporting and recreational activities. The ability to move relatively easily around Melbourne at different times of the day is a basic function of the city's economic and social activity – and one that Melburnians value highly.

Across the city, strong economic and population growth is driving an escalating demand for personal travel.

On a typical weekday, nearly 14 million trips are made across Melbourne (including freight trips). The vast majority of this travel is by car.

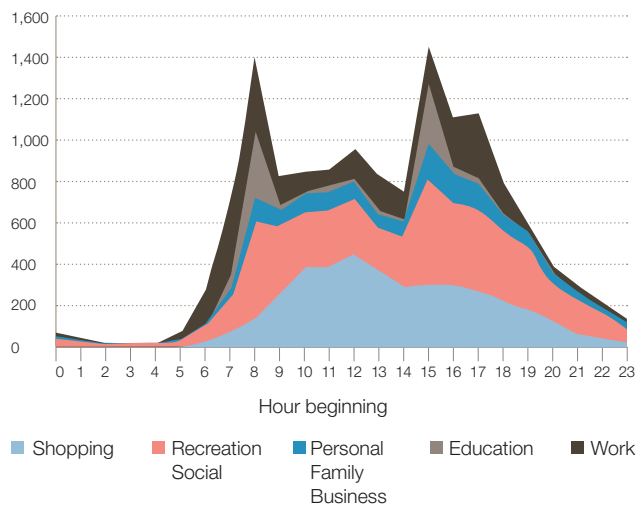
Figure 19 – Typical daily travel in Melbourne, 2001



Source: EWLNA (SKM Maunsell et al – using VATS 2001 data)
Note: Model data is calculated for 2006 and includes all trips in the greater Melbourne area.

About 30 per cent of daily personal trips occur in the peak periods, with around half of the morning peak and around 30 per cent of the afternoon peak made up of trips for work and education. Figure 20 shows the number of trips in each category by time of day, stacked to give the total number of trips occurring each hour.

Figure 20 – Trip purposes by time of day, 2001



Source: EWLNA (SKM Maunsell et al – using VATS 2001 data)

As Figure 20 shows, Melburnians make different types of trips at different times of the day:

- Shopping trips are largely influenced by retail business hours and peak around midday.
- Recreational/social trips are highest in the afternoons and evenings, peaking around 3pm to 4pm.
- Personal/family business trips have a similar distribution throughout the day to shopping, but with an afternoon peak around 3pm to 4pm.
- Education trips show abrupt peaks in the morning and the evening, coinciding with school and college times.
- Work trips also have abrupt morning and evening peaks. However, a significant number of work trips also take place during the day and in the evening (reflecting travel for business during the day and travel by shift, hospitality and part-time workers).

Many of these trips are linked – people may do some shopping on the way home from work; they may take their children to school on the way to work; or they may visit friends on the way to a sporting activity. The need for this flexibility is a significant challenge to expanding the mode share of public transport, with the convenience of car use giving Melburnians a greater ability to link two or more trips several times a day.

Fast facts: moving people around Melbourne

- Melburnians make 13.5 million personal trips across the city each average working day, with more than 10 million of these trips made by car.
- About 30 per cent of all trips occur in the morning and evening peak periods.
- On a daily basis, 78 per cent of Melburnians use motor vehicles (cars, trucks or motorcycles) to travel around the city, 7 per cent use public transport, and nearly 15 per cent walk or cycle.
- Across the city, around 14.5 per cent of people use public transport to get to work (77 per cent use cars). More than 60 per cent of Melburnians who have jobs in the central city areas use public transport for all or part of their journeys to work.
- Travel to school accounts for 17 per cent of morning peak hour traffic in the metropolitan area.

Travel demand data sources

There are many different sources and measures for calculating current travel demand and mode share, and predicting future trends in travel demand. Unless otherwise indicated, the EWLNA Study Team has used the following primary data sources:

- Modelling conducted specifically for the EWLNA (see Appendix F for details)
- Data provided by VicRoads
- Data provided by the Public Transport Division (PTD) and the Walking and Cycling Branch of the Victorian Department of Infrastructure
- The *Transport Demand Information Atlas for Victoria 2008*, released by the Department of Infrastructure in February 2008
- The Victorian Activity and Travel Survey (VATS), which was conducted in 2001. The personal travel and activity data detailed in VATS is currently being updated via the Victorian Integrated Survey of Travel and Activity (VISTA); however, the results of this survey will not be available until later in 2008.
- Journey to Work (JtW) figures from the 2006 Australian Census, as analysed by the Study Team and the Department of Infrastructure.

2.2.2 Modes of travel

Melburnians travel around the city by car (as driver or passenger), public transport (train, tram or bus), cycling and walking. On a daily basis across the city, 78 per cent of people travel by car; 7 per cent by public transport and nearly 15 per cent by walking or cycling.

An analysis of VATS data undertaken for the EWLNA confirms that public transport use is highest (around 25 per cent) for radial movements to and from the inner city and very low (2 to 3 per cent) for movements wholly within the outer suburbs. Non-motorised travel is most popular in the inner city (49 per cent – due to the high number of walking trips that take place in central Melbourne).³

When it comes to travelling to work, transport mode share patterns change significantly. The most recent Journey to Work (JtW) figures from the 2006 Census show that 77 per cent of Melburnians use cars to travel to work, while 14.5 per cent use public transport.

These figures show that, while Melburnians still made more car journeys to work in 2006 than in 2001, the share of total journeys made by car has fallen by nearly two percentage points. This fall reflects strong increases in the use of public transport (especially trains) and walking and cycling to work.

The number of journeys to work in which public transport was used for all or part of the journey increased by 17 per cent over the five years to 2006, while the number of car journeys increased by 6 per cent. Recent evidence indicates that public transport share would have increased even further since the 2006 Census.

As shown in Table 5, using the train, cycling and walking grew significantly in popularity between 2001 and 2006, exceeding the rate of population growth. Table 6 also shows that car commuting has grown more slowly than employment growth and that driving the car to the station and catching the train to work has declined (with some evidence to indicate that this may be due to overflowing or inadequate parking facilities at railway stations).

3. The results of this analysis are set out in SKM Maunsell/Evans and Peck (2008a)

Table 5 – Modal shares of daily journeys to work in Melbourne Statistical Division, 2001 and 2006

Travel mode	2001 daily journeys	2001 (per cent)*	2006 daily journeys	2006 (per cent)*
Public transport	164,075	13.4	192,375	14.5
Car	966,839	78.7	1,021,051	77.0
Bicycle	13,201	1.1	18,937	1.4
Walking	35,384	2.9	47,983	3.6
Other	48,688	4.0	46,189	3.5
Sub-total (left home journeys to work)	1,228,187	100.0	1,326,535	100.0
Worked at home	58,959		59,684	
Did not go to work	154,761		163,568	

* The percentage figures shown are the percentages of 'Left home journeys to work', which do not include the number of people who worked at home and those people who did not go to work on Census day.

Source: DOI (2008) – using ABS Census 2006 data

Table 6 – Growth in modal journeys to work in Melbourne Statistical Division, 2001 to 2006: Average annual growth rate – AAGR (per cent)

Travel mode	AAGR (per cent)*	2006 daily journeys
Car as driver	1.2	948,046
Car as passenger	-0.6	70,629
Train, any mention as a method	3.2	133,517
Train, sole method	4.7	84,216
Train and tram	2.5	9,727
Train and bus	2.5	10,005
Train and car as driver	-0.3	18,872
Train and car as passenger	-3.4	4,758
Train and bicycle	2.2	1,085
Tram, any mention as a method (not including train)	2.0	33,712
Tram, sole method	1.7	31,746
Bus, any mention as a method (not including train or tram)	0.7	16,626
Bus, sole method	1.6	14,844
Bus and car as driver	-6.6	704
Bus and car as passenger	-4.7	1,078
Bicycle, any mention as a method	7.5	18,855
Walked only	6.3	47,984
Total left home journeys to work	1.6	1,326,535

* The figures shown are the percentages of 'Left home journeys to work', which do not include the number of people who worked at home and those people who did not go to work on Census day.

Source: DOI (2008) – using ABS Census 2006 data

2.2.3 Commuting patterns

The 2006 Census Journey to Work data also shows that public transport use is much higher for those Melburnians who work in the central city, with more than 60 per cent of these workers using public transport for all or part of their journeys to work.

As the Department of Infrastructure noted in its analysis of the 2006 Census JtW figures:

“For those Melburnians who work in the CBD, using public transport to get to work has always been popular, and increased in popularity between 2001 and 2006.”⁴

Generally, Melburnians’ travel patterns indicate that the further away from the central city people live, the more likely they are to use their cars to get to work – but they are also more likely to be working relatively close to home.

Evidence from specific municipalities reinforces these commuting patterns.

- In the City of Yarra (an inner city municipality where most residents work in or around the central city), around 35 per cent of residents use public transport to travel to work.
- In the City of Casey (in Melbourne’s south east), just 6.6 per cent of people use public transport to get to work (81 per cent drive their cars). This aligns with data showing that around one quarter of Casey workers have jobs in Casey, another quarter commute to nearby Greater Dandenong and only 6 per cent have jobs in the central city.

- In the City of Boroondara (which is relatively close to the central city and where one third of workers have jobs in the CBD), 20 per cent of workers use public transport for all or part of their journeys to work, while 66 per cent drive their cars.
- In the City of Wyndham (in Melbourne’s west), nearly 10 per cent of residents use public transport, while nearly 78 per cent drive their cars to work. Wyndham has a relatively high share of commuting by public transport (for an outer suburb) because nearly 20 per cent of residents work in the central city.⁵

Mapping the most recent Journey to Work data from 1996 to 2006 shows that public transport has overtaken the car as the dominant mode of travel for people travelling to work in the city of Melbourne, with car use declining. However, the broader picture across Melbourne highlights the continuing dominance of the car (see Figure 21). Journey to Work data also shows the large number of people commuting to and from the suburban centres of Ringwood, Dandenong and Frankston (see Figure 22).

Table 7 – Modal shares of journeys to work with a destination in the Inner Melbourne Statistical Local Area,* 2006

	Daily journeys	Share of left home journeys to work** (per cent)
Train, tram or bus only	62,906	45.2
Public transport used for all or part of journey to work	83,760	60.2
Car as driver	32,144	23.1
Car as passenger	6,294	4.5
Bicycle only	3,133	2.3
Walked only	7,677	5.5

* The Inner Melbourne Statistical Local Area closely corresponds to the Melbourne CBD, bounded by Flinders, Spring, Latrobe and Spencer Streets.

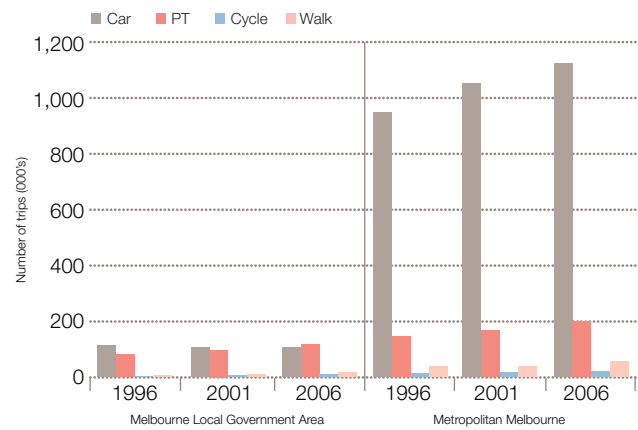
** ‘Left home journeys to work’ do not include the number of people who worked at home and those people who did not go to work on Census day.

Source: DOI (2008) – using ABS Census 2006 data

4. DOI (2008)

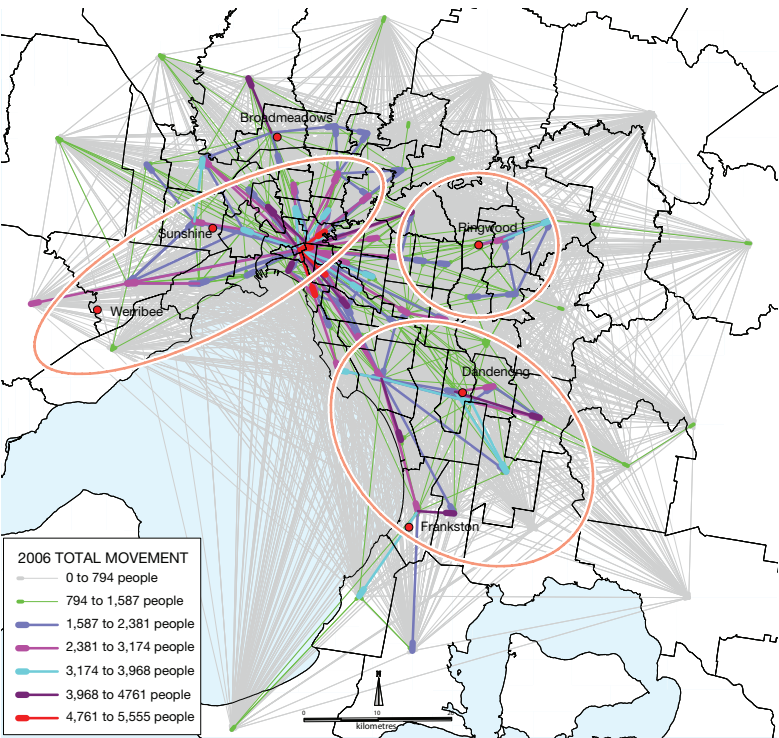
5. Data from DOI (2008)

Figure 21 – Journey to work patterns of travel, 1996 to 2006



Source: EWLNA (using ABS census data)

Figure 22 – Journey to work patterns of travel, 2006



Source: EWLNA (SGS Economics and Planning)

2.3 Future demand for travel

Over the next 30 years, Melbourne's continuing growth will be accompanied by a very large increase in the demand for travel – for work, personal and business reasons.

In order to understand the future demand for travel, the EWLNA Study Team engaged expert modellers to prepare a multi-modal transport model. The model used historical data, together with the latest demographic forecasts to predict future demand for each mode of travel.

This modelling indicates that overall travel demand in Melbourne will grow by 34 per cent between 2006 and 2031 – to a total of around 19 million trips a day. Travel in the morning peak period is predicted to grow by 30 per cent to a total of around 2.6 million trips.⁶

While growth in public transport use is forecast to increase very substantially, it will continue to remain relatively low compared to car travel. In 2031 the daily number of public transport passenger trips is predicted to be around 1.4 million; however, the daily number of person trips by private vehicle is expected to be nearly ten times higher – around 14 million.

In terms of mode share, the model indicates that there will be a continuing and significant mode shift towards public transport (of around 15 per cent) and a smaller shift towards walking and cycling. However, while growth in car use is predicted to slow slightly, the actual number of trips made by car on Melbourne's roads will still increase by a very substantial amount. Recent projections by the Bureau of Infrastructure, Transport and Regional Economics (BITRE) indicate a 19 per cent increase in total car vehicle kilometres travelled (VKT) in Melbourne between 2005 and 2020.⁷

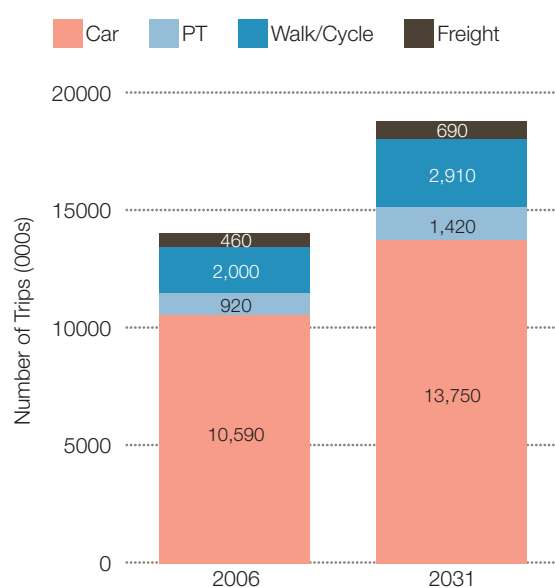
The BITRE's projections for growth in total VKT in Melbourne to 2020 also confirm that the vast majority of this growth will come from cars, although travel by light commercial vehicles (LCVs) will also increase at a substantial rate (see Figure 25).

When using transport models to predict the future demand for travel, it is important to apply judgement to the results to ensure that they align with current experience. It is also important to recognise how travel behaviour and patterns might change in the future as a result of new community attitudes or government policies.

An example of this approach can be found in the Study Team's analysis on future rail demand (see Chapter 3), where the Public Transport Division's analysis of the most recent resurgence in patronage has been incorporated into consideration of future rail demand, along with the EWLNA modelled outputs. Another example is the modelling undertaken by the EWLNA of a future 'carbon constrained world' (see

Chapter 8), where large shifts in community attitude and government policy have been explored. In both instances, the mode share of public transport is greater than the projections discussed in this chapter; however, the demand for car travel will also increase well above today's levels.

Figure 23a – trip demand summary, 2006 and 2031



Source: EWLNA (Veitch Lister)

Fast facts: moving people in around Melbourne in the future

- Overall travel demand in Melbourne will grow by 34 per cent between 2006 and 2031 – to a total of around 19 million trips a day.
- Travel in the morning peak period will grow by 30 per cent to around 2.6 million trips
- Growth in travel demand will be strongest in the inner city and in the west and south of the city
- Public transport use will continue to grow strongly, increasing its share of travel by at least 15 per cent (based on historic travel patterns, although recent patronage figures suggest higher growth may occur)
- While the mode share of car travel will decline very slightly, the overall demand for car travel will increase by 30 per cent by 2031.

6. For further analysis of projected travel demand, see SKM Maunsell/Evans and Peck (2008a)

7. BITRE (2007), *Working Paper 71: Estimating urban traffic and congestion cost trends for Australian cities*, Commonwealth of Australia, Canberra, p.47

Figure 23b – Public Transport and Road Growth 2006 to 2031 AM Peak, Metropolitan wide.

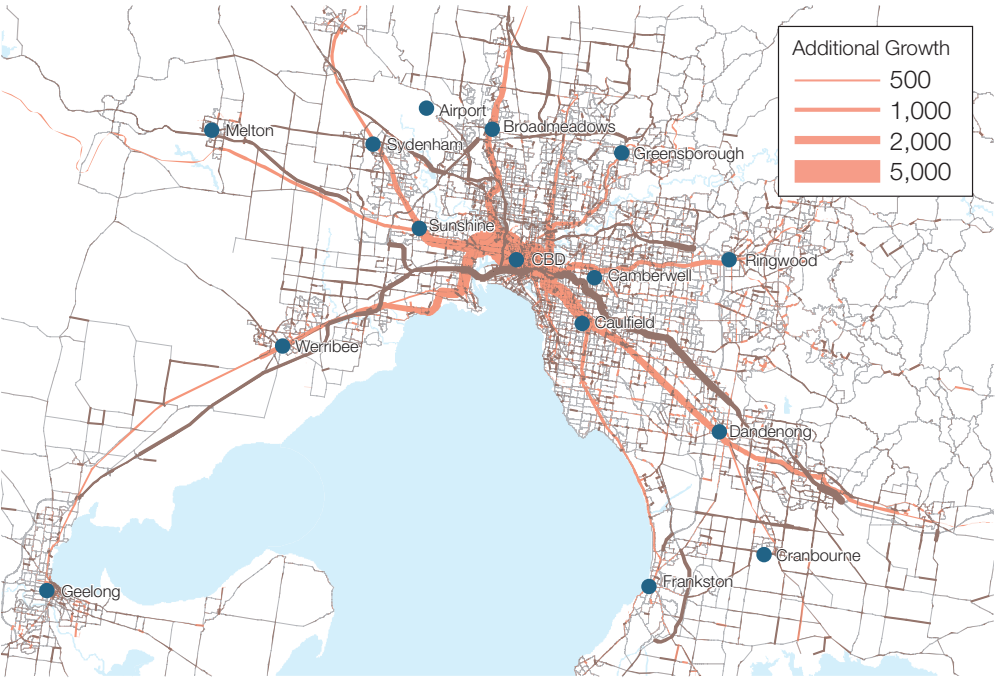


Figure 23c – Public Transport and Road Growth 2006 to 2031 AM Peak, Study Area.

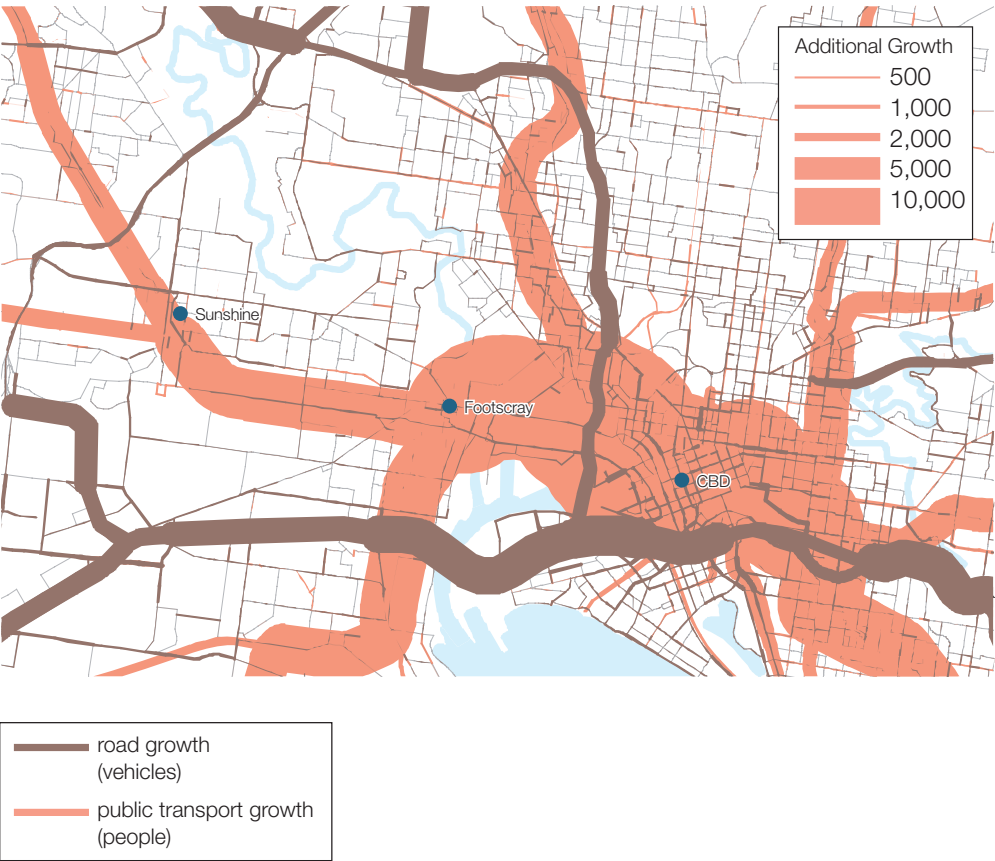
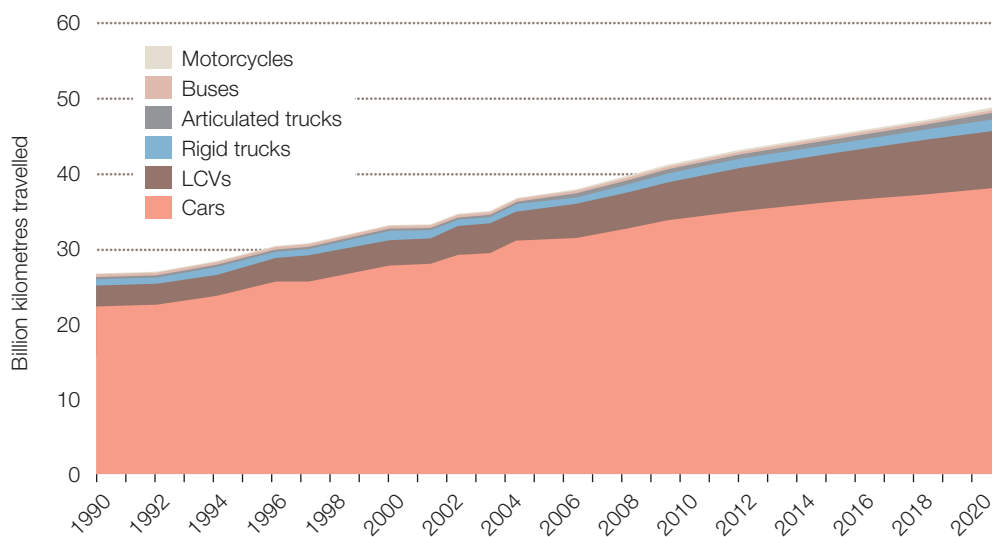


Table 8 – Growth in trip demand, Melbourne, 2006 and 2031⁸

Thousand Trips		All day			AM Peak		
		2006	2031	% growth	2006	2031	% growth
Melbourne	Car	10,590	13,750	30%	1,520	1,900	25%
	PT	920	1,420	54%	220	340	55%
	Walk/Cycle	2,000	2,910	46%	210	290	38%
	Subtotal	13,510	18,080	34%	1,950	2,530	30%
	Freight	460	690	50%	70	100	43%
	TOTAL	13,970	18,770	34%	2,020	2,630	30%
People Mode Shares	Car	78.4%	76.1%	-3%	77.9%	75.1%	-4%
	PT	6.8%	7.9%	15%	11.3%	13.4%	19%
	Walk	14.8%	16.1%	9%	10.8%	11.5%	6%

Source: EWLNA (SKM Maunsell/Evans and Peck)

Figure 24 – Total projected VKT for Melbourne to 2020



Source: BITRE (2007)

8. Modelling analysis undertaken by SKM Maunsell/Evans and Peck with the aid of Veitch Lister Consulting's Zenith transport model, which is calibrated (using available information) to reflect the situation in 2006. Details of this modelling are set out in Appendix F, and in specialist reports available at the EWLNA website.

Modelling undertaken for the EWLNA also shows some significant changes in the reasons for making trips. As Table 9 shows, the greatest growth is predicted to occur in freight trips (49 per cent), non-home-based recreational trips (48 per cent) and work-based trips (46 per cent).

Table 9 – Trip purposes, 2005 to 2031

Thousand trips modelled	All day		
	2006	2031	%growth
Home-based education	1,210	1,500	23%
Home-based recreation	7,340	9,420	28%
Home-based work	2,685	3,410	27%
Non-home-based recreation	3,690	5,450	48%
Work-based trips	810	1,180	46%
Freight trips	510	760	49%

Source: EWLNA (SKM Maunsell et al)

The rise in freight trips is discussed further in Chapter 6. The increase in ‘work-based’ work trips reflects a growing trend associated with the transition to a services economy: more business-related travel involving face-to-face contact and travel involving the delivery of services (as distinct from the delivery of goods). It also reflects an increased blurring of the lines between personal trips and work trips.

When viewed alongside the industry, demographic and work changes taking place across Melbourne, these changes suggest that future travel demand in Melbourne is likely to involve more short trips, more linked trips, more door-to-door travel, and travel to and from a more dispersed range of origins and destinations. As the RACV pointed out in its submission to the EWLNA:

“It is particularly important to note that more complex, multi purpose and destination trips are becoming more prevalent in the community. This will be particularly so in off peak, non-urban and suburban locations.”⁹

The nature of these complex trips favours the flexibility and convenience offered by the motor vehicle – another factor in the likely continued domination of the car as Melburnians’ preferred mode of transport.

STUDY TEAM FINDINGS

As Melbourne’s population and economy grows, the demand for travel will increase very substantially.

Overall travel demand in Melbourne will grow by 34 per cent between 2006 and 2031, with the strongest growth occurring in the inner city and in the west and south of the city.

Public transport use will continue to grow strongly, increasing its share of travel by 15 per cent. Overall, public transport is likely to account for a mode share of nearly 8 per cent of all motorised and non-motorised trips in 2031 (although growth over the last three years suggests this number could be higher).

While the rate of growth in car travel will slow slightly, the overall demand for car travel will increase by 30 per cent. Car travel will continue to be the preferred mode of personal transport for Melburnians for the foreseeable future and access to an efficient, safe and well-managed road network will continue to be indispensable in the daily lives of the vast majority of the city’s residents.

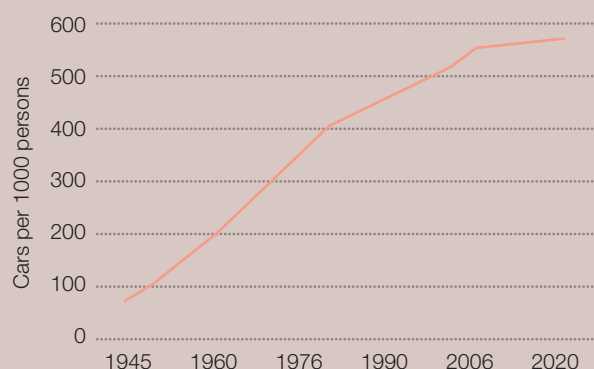
9. RACV submission to the EWLNA (2007), p.6

Our love affair with the car

“Like a human love affair, our love affair with the car unfolded, step by step, from its first moment of distant admiration through casual acquaintance, infatuation and deep bonding to taken-for-granted familiarity.”¹⁰

Australians have enjoyed a long love affair with the car. Out of a population of 20 million, 12 million Australians are licensed to drive and there were 14.8 million motor vehicles on our roads in 2007, an increase of 12.2 per cent since 2003.¹¹ Car ownership is projected to increase over the next decade, although there is some evidence that it may have reached saturation levels.

Figure 25 – Projected car ownership in Australia



Source: BITRE (2002b)

Like the rest of Australia, Victorians own more motor vehicles than ever, spend longer commuting and generally prefer to drive rather than use public transport. Despite increases in the price of petrol and the costs of owning a car, passenger vehicle registration in Victoria increased by 7 per cent between November 2001 and October 2005 (more than twice the rate of Victoria's population growth).¹²

The continuing popularity of car travel presents a very significant challenge to the Victorian Government's aim of increasing the share of trips made by public transport. In 2007, a survey conducted by the Australian Automobile Association found that:

- 9 in 10 Victorian motorists rate their car as important in their daily lives, with two thirds regarding their car as 'extremely important';
- 9 in 10 drive their car every day or most days of the week; and
- less than 2 in 10 use public transport at least once a week.¹³

The 2005 Household Travel Survey conducted by the NSW Ministry of Transport asked people living in metropolitan Sydney for the reasons they chose public transport or private vehicle to travel to work. For those choosing to commute by car, the most frequently cited reasons were:

- speed of travel (48 per cent);
- inaccessibility of public transport (33 per cent) and problems with public transport (26 per cent); and
- convenience – including 'more comfortable' (20 per cent), 'no waiting' (20 per cent), 'can make trip whenever' (20 per cent) and 'arrives closer to destination' (18 per cent).¹⁴

These results support other evidence indicating that travel times, flexibility and comfort are powerful motivators in people opting to use cars over public transport. In an analysis of the survey results, the Transport Data Centre noted that even if public transport could match these factors, "the shift from the car is not assured" as there are commuters "who are simply captive to the car and unlikely to shift to public transport".¹⁵

continued next page...

10. Davison, G. (2004), *Car Wars: How the Car Won our Hearts and Conquered our Cities*, Allen and Unwin, Crows Nest

11. ABS (2007), *Motor Vehicle Census*, Cat no: 9309.0, Commonwealth of Australia, Canberra

12. SKM Maunsell/Evans and Peck (2008a)

13. Australian Automobile Association (2007), *Motorists' Attitudes and Priorities in 2007*, AAA Survey of Motorists' Attitudes, Conducted by ANOP Research Services Pty Ltd, 9th in series, Provided to the EWLNA by the RACV

14. Transport Data Centre (2007), *2005 Household Travel Summary: Summary report*, NSW Ministry of Transport, Government of NSW, Sydney

15. Corpuz, Grace (2007), *Public Transport or Private Vehicle: factors that impact on mode choice*, Paper delivered to 30th Australasian Transport Research Forum, Transport Data Centre, NSW Ministry of Transport, Government of NSW, Sydney

Despite the popularity of the car, there is substantial evidence that Australia's heavy car dependency has significant negative impacts, including:

- environmental (urban sprawl, air pollution, noise disturbance and GHG emissions);
- economic (vulnerability to changes in global oil production, increasing traffic congestion and the need to provide urban infrastructure across a more dispersed geographic area);
- social (isolation, unequal access to services and reduced community amenity); and
- health effects (disability and death caused by road trauma, respiratory illnesses caused by air pollution and obesity caused by reduced levels of physical activity).

Recent research conducted in Sydney suggests that the total social cost (including externalities) of running a car is 80 cents per person-kilometre, compared with 40 cents per person-kilometre for rail and 43 cents per person-kilometre for buses.¹⁶

Despite these impacts, Australians continue to prefer travel by motor vehicle over all other modes of transport. Generally, people who use public transport still own a car and will use it regularly (often daily) for different types of trips. Most predictions of growth in urban travel are that increased demand will be met largely by car travel – although growth in per capita car travel is likely to level out over the next decade. These predictions are based on the assumption that, while petrol prices, congestion and environmental concerns will lead to ongoing increases in public transport use, most Australians will remain very reluctant to give up the personal mobility provided by cars.

While it is vitally important for governments to pursue increases in public transport patronage and to promote changes in travel behaviour, the indicators are that Australians – and Melburnians – will continue their love affair with the car, although the object of their affection will shift from large, petrol- or diesel-fuelled vehicles to smaller, more environmentally friendly vehicles.

16. Glazebrook, G. (2006), *Taking the con out of convenience: The true cost of transport modes in Sydney*, Faculty of Design, Architecture and the Built Environment, University of Technology, Sydney (forthcoming)