Australian Government
Department of Infrastructure and Regional Development
Bureau of Infrastructure, Transport and Regional Economics

Long-term trends in urban public transport

At a glance

This information sheet presents detailed long-term trend statistics for Australian urban passenger transport, and compares changes in patronage on metropolitan mass transit systems with the corresponding patterns in private road vehicle use. (Note that annual values given herein refer to years ending 30 June.)

Over the last century or so, some of the developments in Australian urban passenger movement include:

- Total metropolitan travel in Australia has increased vastly over time, growing from an average of about 4 million daily trips taken in our capital cities during 1900 (including all trips, both motorised and non-motorised) to about 72.5 million trips per day by 2013 (for the 8 State and Territory capital cities; see Figure 1 for modal composition). The underlying metropolitan population growth, during this 18-fold increase in annual trip generation, was from about 1.43 million persons (as at 30 June 1900) to about 15.34 million (as at 30 June 2013, summed across the 8 capitals).
- Over this time, Australia's major cities tended to grow ever outwards, generally leading to longer and longer average trip lengths. Thus, accompanying this increasing volume of annual trips, the length of an average metropolitan trip climbed from around 2.5 kilometres at the start of the twentieth century (when urban passenger transport was still dominated by non-motorised travel) to a current level of close to 7.5 kilometres per trip. This means the aggregate annual transport task in *passenger-kilometres* (pkm, derived by multiplying the total number of trips taken by the average length of those trips) has grown from an estimated level, across the capitals, of only about 3.5 billion pkm during 1900 to almost 197 billion pkm for 2013 (increasing by almost 56 times).
- The most substantial city expansions have generally occurred since the end of the Second World War, with motorised passenger travel across the capital cities having grown almost ten-fold since 1945. Most of that post-war pkm growth was due to cars and other road vehicles (such as motorcycles and light commercial vehicles used for non-freight purposes), leading to the existing dominance of private motor vehicle travel, which currently accounts for close to 90 per cent of the motorised pkm task within our capital cities.
- Throughout the first half of the twentieth century, up until the years directly following the Second World War, urban public transport (UPT) held the dominant share of total pkm within the Australian capital cities; before gradually losing market share with the growing post-war popularity of private car travel. Aggregate UPT mode share (for pkm by rail, bus and ferry) gradually declined, reaching around 10 per cent (roughly equivalent to current levels) by about 1980.
- However, recent years have seen substantial rises in passenger numbers across many Australian public transit systems, partially due to periods of higher than average fuel prices and to various infrastructure or service expansions (see BITRE 2014a). Average UPT growth was particularly strong between 2005 and 2009, with total patronage (summed across all 8 capitals) increasing by about 4.7 per cent per annum; while growth over the last few years has been more muted, averaging around 1.3 per cent per annum between 2009 and 2013.
- BITRE estimates that the result of this recent growth is around 1.56 billion passenger trips having been undertaken across the UPT systems of the 8 capital cities during the 2013 financial year – with

approximately 659 million train passengers, 191 million on light rail, 692 million on route buses (including estimated school services) and 23 million on ferries (both private and public operators) – up from about 1.22 billion passengers during the 2004 financial year.

- Using estimated average trip lengths for the various modes gives a derived passenger task for capital city UPT route services (rail, bus and ferry) of approximately 18 billion passenger-kilometres over 2013 (see Table 6 for city by city values). Slightly widening the scope to all 'mass transit' – that is, including *all* capital city bus travel (not only on route services, but also by charter/hire vehicles or other private use of buses/minibuses)[1] – yields an estimate of around 19.6 billion pkm for 2013 (with about 59.7 per cent due to train travel, 3.9 per cent on light rail, 35.6 per cent by bus, and 0.8 per cent by ferry).
- Despite the recent increases in the mass transit task, the share of total urban passenger travel due to private road vehicles has not significantly decreased – with cars and other such vehicles (motorcycles and the non-freight use of commercial vehicles) accounting for an estimated 169 billion pkm across the 8 capitals in 2013; modal share of about 89.6 per cent of the motorised total, down slightly from 2004 levels of about 91.3 per cent.

The results presented here revise, update and expand on those previously provided in Information Sheet 31 (BITRE 2009a), Information Sheet 33 (BITRE 2009b) or earlier releases of the BITRE Infrastructure Yearbook (such as Table 3.3 of BITRE 2013a), and supplements the detailed rail comparisons in BITRE (2012a) Report 131. An overview of current Australian urban public transport use and related issues, around passenger movement within our capital cities (such as recent modal changes, travel growth or UPT cost and service levels), is provided in an accompanying information sheet, *Urban public transport: updated trends* (Information Sheet 59, BITRE 2014a). As well, long-term numerical time-series on urban transport usage patterns, for each State and Territory capital city, are available in spreadsheet form on the BITRE website. Estimation and collation of the passenger task values given in these updated information sheets are based on methods discussed in a BITRE conference paper (Cosgrove 2011) on long-term UPT trends.

Introduction

Significant increases in passenger numbers, for many Australian UPT systems, over the last couple of decades have had their part to play in the various ongoing debates about appropriate funding and community service levels for those systems (see BITRE 2014a for discussion of recent public transit cost recovery and network services). To properly assess the scope for likely future changes in UPT patronage levels, broad knowledge of what has happened over time, in urban transport patterns, can be of significant value. This Information Sheet updates a previous paper (Cosgrove 2011) and presents long-term time-series for the usage patterns of urban passenger transport – where UPT trip data have been compiled for each of the Australian capital cities, covering a period of more than a century (1900 to 2013).

The provided time-series allow, wherever possible, for a range of standardisation issues, typically involving the consistency of patronage estimates for differing years and comparability between the different transit systems. This entails often having to allow for issues such as: varying patronage data collection and estimation methods (including some service providers having less consistent reporting practices); differing approaches for dealing with fare data, and the need to account for a range of ticket types (such as periodical, multi-modal or integrated ticketing, and for concessional or free passenger travel) as well as possible fare evasion; differences in trip type inclusion (where some reported passenger numbers may only include full-fare-paying customers, as opposed to all travellers, while others might include only initial boardings, instead of also recording transfers between services within a complete journey); geographic coverage, especially where some reported statistics include regional services as well as purely metropolitan travel[2]; a range of vehicle types and service providers (both government and private), even within a particular transit mode/corridor[3], typically requiring a wide variety of different data sources.

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[1] UPT refers here to any shared urban passenger transport services that are available to the general public (such as by buses, trams, trains or ferries, typically running over specified routes to scheduled timetables); as distinct from shared travel that is privately arranged (such as for taxis, car pooling or bus hire). The term 'mass transit' is used here to comprise UPT plus the private use of multi-passenger vehicles (such as chartered buses). Note that allowances for the task contributions of charter/hire/private bus use are primarily based on Australian Bureau of Statistics (ABS 2013 and earlier) *Survey of Motor Vehicle Use* data, and are very approximate.

[2] Statistics presented here generally refer to passenger travel and resident population within the Greater Capital City Statistical Areas (GCCSAs) for each State or Territory capital – according to Australian Bureau of Statistics (ABS) definitions for these geographic boundaries; with some cities having noticeably higher reported population levels under these new definitions – compared with the previous ABS geography, whereby the metropolitan areas were defined according to Statistical Divisions (SDs) – while others exhibited little change (see ABS 2012).

[3] For example, today's tram networks in Australia are fully electrified, yet past systems have used horse-drawn, cable and steam trams as well, with even electric trolley-buses sharing electric trams' overhead wires in some Australian cities during the 1930s to 1960s.

The beginnings of urban transport in Australia

Until the latter half of the nineteenth century, urban transport needs in Australian cities were fairly minimal – since all were still relatively small (in 1850 the population of the largest, Sydney, was only about 50 thousand), and walking accounted for the majority of urban trips (with most remaining passenger travel being performed by horse). However, by 1900 this had changed quite dramatically – largely due to surging income levels, immigration and industrial development flowing from the gold-rush era. Such stimuli to urbanisation resulted in the Australian mainland state capitals (Sydney, Melbourne, Brisbane, Adelaide and Perth) reaching a combined population of almost 1.4 million by the start of the twentieth century. With city areas now growing at a substantial rate, the development of effective transportation systems became a prominent part of furthering the urbanisation process.

Initial forays by Australian cities into mass passenger transport were dominated by horse use, with hansom cabs, wagonettes and horse buses all sharing (generally poor quality) urban roads from about the 1860s onwards. Horse-powered trams also appeared about this time – firstly, trialled (rather unsuccessfully) in Sydney; and later spreading across Adelaide during the 1880s; with Brisbane and Melbourne also opening horse tram lines near the end of the nineteenth century. However, with the subsequent electrification of most tramways, and also due to increasing competition from motor-buses, such horse-drawn public transit started disappearing during the early stages of the twentieth century, leaving horse travel to play a negligible role in Australian urban transport after the 1920s.

Mechanical traction began appearing on Australian city streets during the 1880s, initially with the use of steam trams (primarily in Sydney) and cable trams (primarily in Melbourne). Large scale construction of electric tramways during the early part of the twentieth century saw Australian use of light passenger rail transport expand rapidly. By the time of the First World War, metropolitan trams (across the Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart systems) were carrying around half a billion passengers per annum. Melbourne eventually converted its cable networks to electric traction, primarily during the 1920s and 1930s. By the end of the Second World War (with Sydney having by then probably the most heavily patronised tram system, in terms of per capita usage, the world has yet seen) Australian tram patronage had reached massive proportions, with metropolitan use accounting for over a billion passenger trips per year (Figure 2)[4].

The appearance of urban train services in Australia roughly paralleled that of the trams' introduction – with Melbourne building the first suburban rail line during the 1850s, and with other cities adding steam locomotives to their public transit systems over the following decades. By the turn of the century, each of the State capitals had heavy passenger rail systems (with Melbourne possessing by far the most comprehensive suburban network of the time) as well as tramways, carrying in aggregate almost comparable passenger numbers (for the year ending 30 June 1900, metropolitan heavy rail had patronage totalling around 94 million journeys, while light rail had carried close to 145 million, out of estimated total metropolitan trips, motorised and non-motorised, of close to 1.5 billion – see Figures 1, 2 and 5; with per capita UPT trips then at roughly 200 per annum). As for the tram-lines, the early part of the twentieth century saw moves to electrify the major steam railways. By the 1940s, the two suburban rail networks that had electrified (Sydney and Melbourne) accounted for close to 90 per cent of total metropolitan train travel in Australia.

Ferry services were also established in several cities during the latter part of the nineteenth century; though only ever accounting for a significant portion of total urban travel in Sydney and Brisbane. During the early 1900s, Sydney's steam ferries accounted for a considerable part of the city's overall mass transit (with patronage in 1900 roughly matching that of the suburban railways). However, the modal share of the Sydney ferry system was slashed following the opening of the Sydney Harbour Bridge in 1932, with aggregate passenger numbers falling from about 50 million per annum (in the years immediately preceding the bridge's completion) to an annual level of around 21 million (averaged over the five years following the bridge opening).

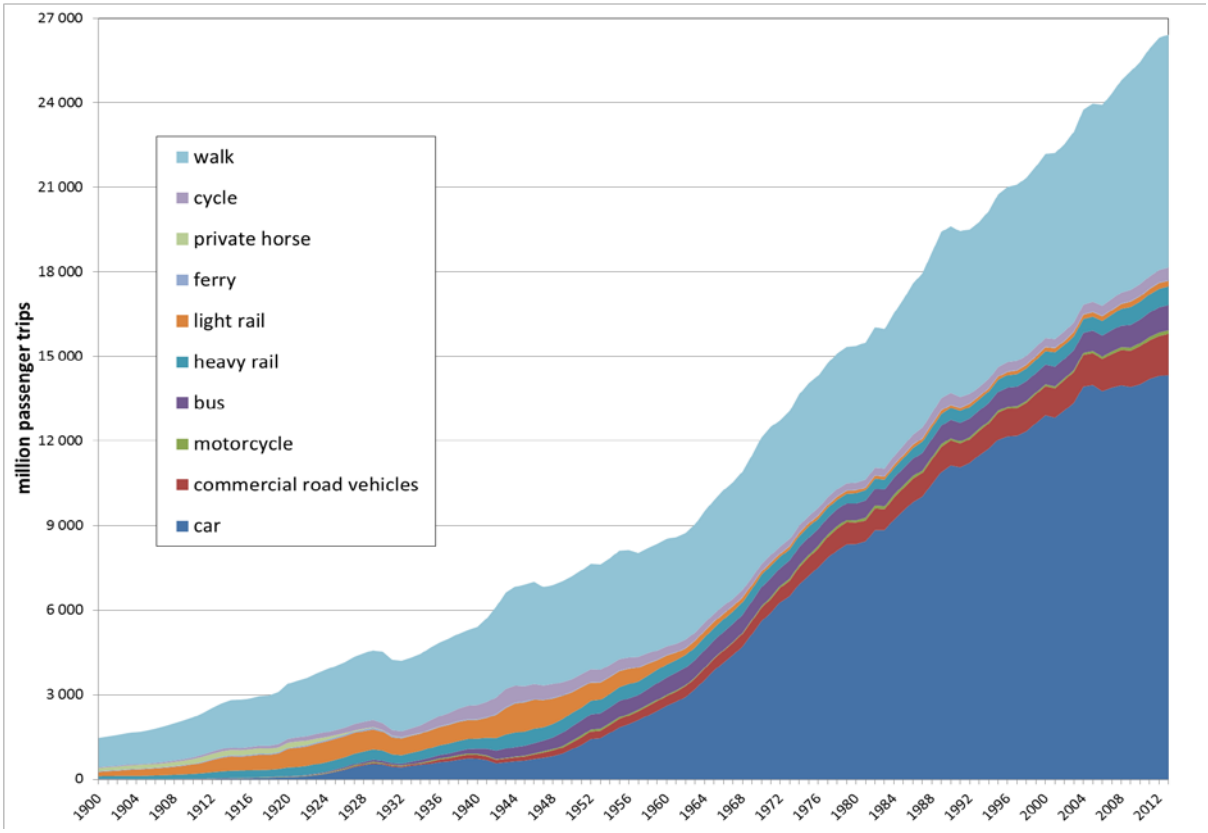
Powered bus use in Australia began soon into the twentieth century (steam, once again, the first technology to compete with the horse; with steam buses trialled as early as 1905). Use of petroleum-fuelled buses started becoming widespread during the 1920s, and by the mid-1930s motor-buses were carrying in the

[4] Total Australian use of trams was then even higher than such capital city aggregates – with various regional centres also introducing tram systems (including Ballarat, Bendigo, Launceston, Newcastle, Rockhampton, Fremantle and Kalgoorlie), and accounting for approximately an extra 40 million tram trips per annum during the mid-1940s.

order of 100 million metropolitan passengers per annum. As well as this growing sectoral competition for many tram services, the 1930s also saw the introduction of electric trolley-buses to several of the State capitals (though the Australian experimentation with such trolley services ended up being relatively short-lived; and all trolley-bus lines had been phased out, in favour of diesel buses, by 1970). During the Second World War, Australian UPT usage burgeoned, especially on those city networks that had continued their rail system expansions or electrification programs. By 1945, total metropolitan patronage across all the various public transit modes was approaching 2 billion passenger trips per annum (aggregates across the 8 Australian capital cities, see Figure 2). This, however, was the heyday of Australian public transit use, and the post-war era saw a steady decline in aggregate UPT patronage.

In the years following the Second World War, trams were not only competing for passenger market share (and road space) with the expanding bus services, but also with the growing availability of car travel. Such pressures, including motorist associations regularly lobbying for governments to close tram-lines, contributed to most cities (the only major exception being Melbourne) gradually dismantling their tram networks during the 1950s and 1960s (typically replacing them with bus services), despite significant public protest (especially in Sydney and Brisbane) over many line closures. After the war, total annual UPT passenger volumes fell for over three decades; and even though the current number of urban travellers carried on Australian buses, railways and ferries is still considerable, it is well below the aggregate levels reached during mass transit's peak years (in terms of passenger market share, during the mid-1940s).

Figure 1: Metropolitan passenger trips for Australia, across all modes, 1900–2013

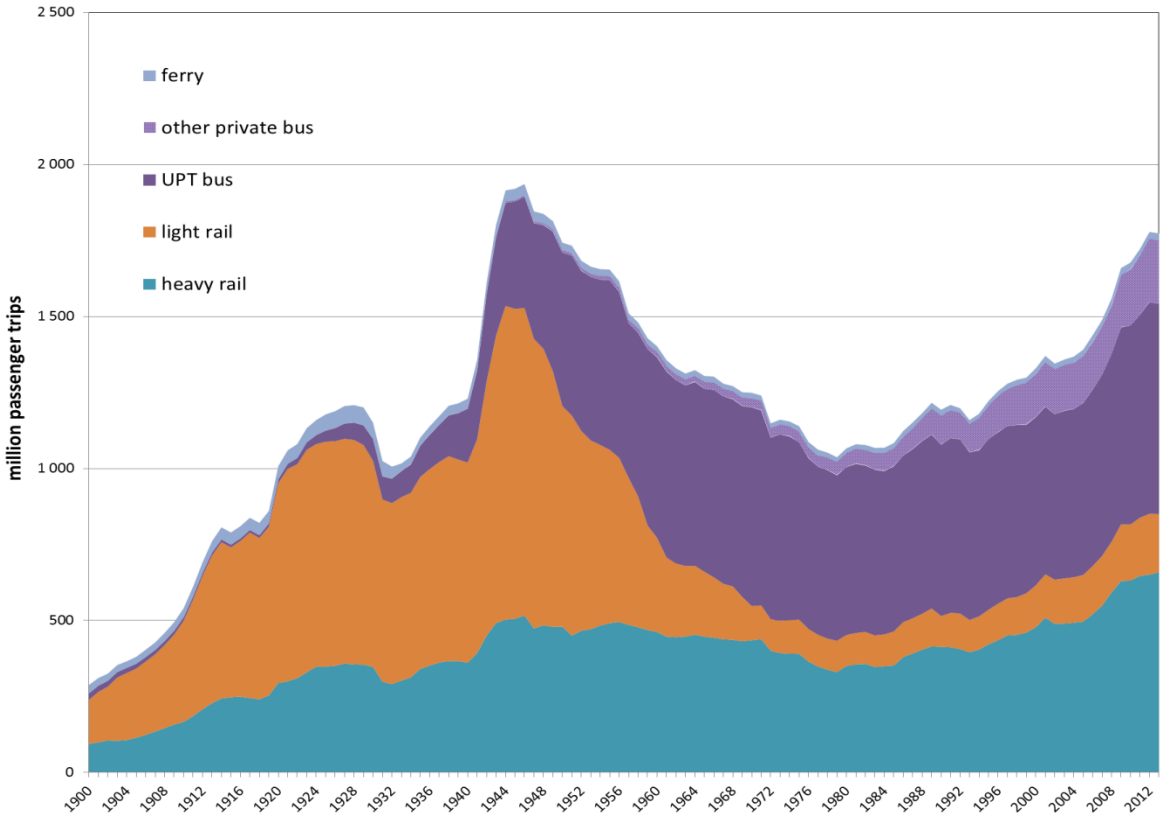


Notes: Includes total annual passenger trips (for years ending 30 June) within all State and Territory capital cities, across all available transport modes (including rough estimates of non-motorised travel).

Values for 'light rail' include estimates for the Sydney Monorail (as well as for early horse-drawn or steam trams). Values for 'bus' cover: all motor vehicles with 10 or more seats (i.e. charter/hire buses and other private buses/minibuses, in addition to UPT route buses), including the use of trolley-buses; as well as horse-drawn buses for early years. Values for 'private horse' include carriage and saddle horses, but not those used for horse-buses and horse-trams – which are included in the relevant mass transit modes. Values for 'commercial road vehicles' relate to non-freight use of such vehicles (primarily due to travel by light commercial vehicles such as utilities and panel vans).

Sources: Cosgrove (2011), ABS (2013 and earlier), CBCS Yearbooks (1973 and earlier), BITRE (2010, 2014a) and BITRE estimates.

Figure 2: Mass transit passenger trips for metropolitan Australia, by mode, 1900–2013



Notes: Includes total annual passenger trips (for years ending 30 June) within all State and Territory capital cities, across all mass transit modes (including rough estimates of horse-drawn vehicles).

Values for 'light rail' include estimates for the Sydney Monorail (as well as for early horse-drawn or steam trams). Values for 'UPT bus' cover all route/school bus services, including the use of trolley-buses and horse-drawn vehicles for early years. Values for 'other private bus' are very approximate allowances for such vehicles, giving the roughly estimated contribution of charter/hire buses (and other non-UPT buses/minibuses).

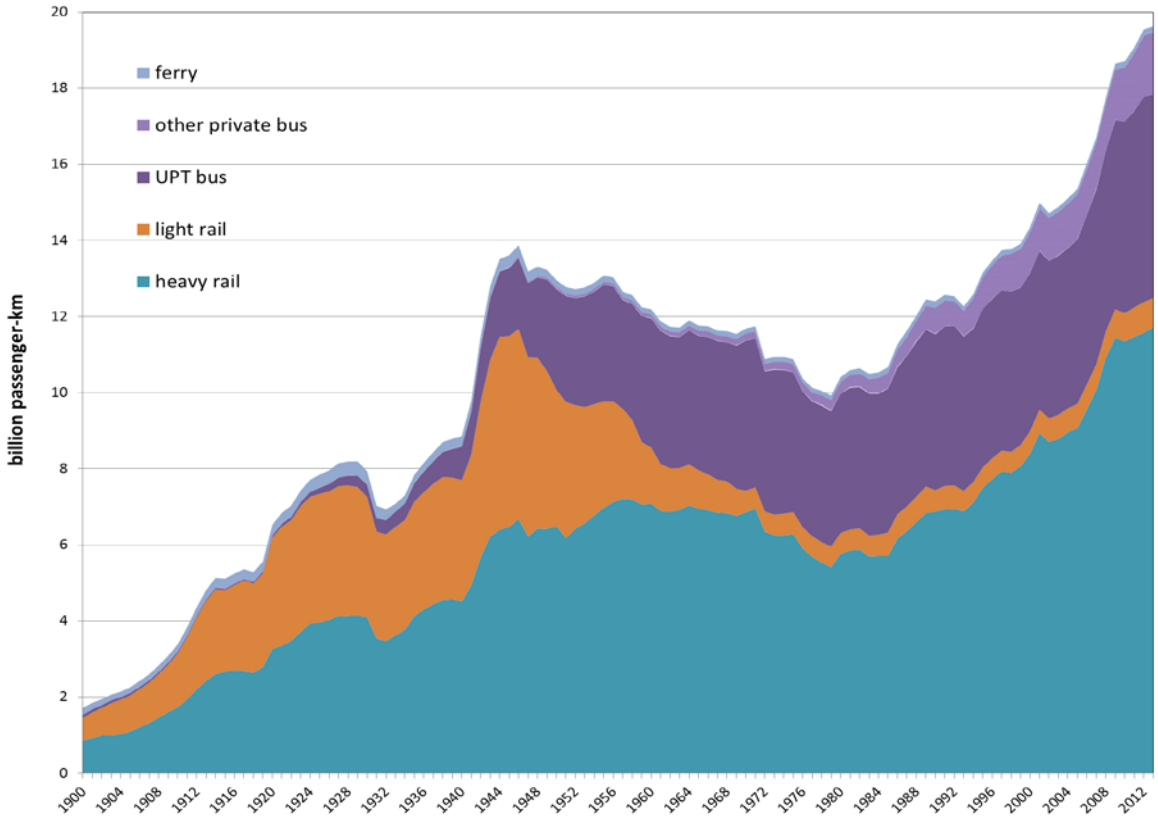
Sources: Cosgrove (2011), ABS (2013 and earlier), CBCS Yearbooks (1973 and earlier), Lee (2003), BITRE (2014a) and BITRE estimates.

The growth in urban passenger travel

Figure 1 shows the huge growth in total metropolitan passenger trips since 1900 – increasing from a level of around 1.5 billion trips per annum at the start of last century to a 2013 estimate of 26.4 billion. It is apparent from the plotted values that walking forms a sizeable proportion of total trips taken (at currently around 30 per cent of daily urban trips). However, with walking trips generally well under a kilometre in length (compared with current averages for urban train travel of close to 18 kilometres, route bus travel of towards 8 kilometres per trip, and car travel around 10.5 kilometres per passenger), walking's contribution to total passenger-kilometres is not as significant (with urban non-motorised travel – walking and cycling – roughly estimated to account for about 4 per cent of current pkm totals across the capital cities, see BITRE 2014a).

The portion of total metropolitan trips due to travel by mass transit is then displayed in more detail in Figure 2. Substantial growth over the last decade has resulted in a 2013 level of about 1.77 billion passenger trips (10 per cent of current motorised totals for the capitals, see Figure 1), with an estimated 1.56 billion public transit passengers (derived using performance monitoring reports from the various transit authorities or service providers) and the remainder performed by private bus use (such as charter or hire operations, roughly estimated from the ABS *Survey of Motor Vehicle Use*). That 2013 UPT aggregate for the capital cities was comprised of about 850 million rail passengers (659 million train passengers and 191 million on light rail), 692 million on route/school buses and 23 million on ferries.

Figure 3: Mass transit passenger task for metropolitan Australia, by mode, 1900–2013



Notes: Includes total annual passenger travel (pkm for years ending 30 June) within all State and Territory capital cities, across all mass transit modes (including rough estimates of horse-drawn vehicles).

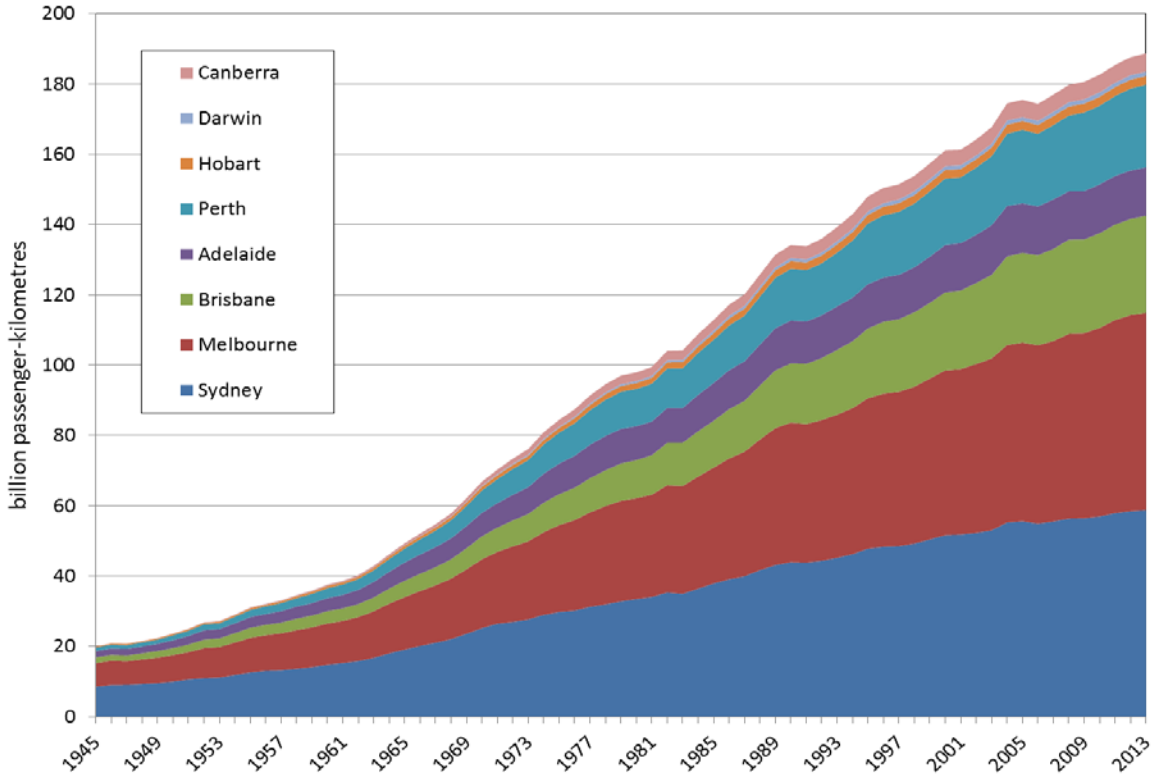
Values for 'light rail' include estimates for the Sydney Monorail (as well as for early horse-drawn or steam trams). Values for 'UPT bus' cover all route/school bus services, including the use of trolley-buses and horse-drawn vehicles for early years. Values for 'other private bus' are very approximate allowances for such vehicles, giving the roughly estimated contribution of charter/hire buses (and other non-UPT buses/minibuses).

Sources: Cosgrove (2011), ABS (2013 and earlier), Adena & Montesin (1988), Cosgrove & Gargett (1992, 2007), CBCS (1973 and earlier), Hensher (2000), BITRE (2010, 2014a) and BITRE estimates.

Multiplying the annual passenger trip values of Figure 2 by respective average trip lengths (which for many modes have tended to lengthen over this time, as Australia's major cities have grown outwards), gives the passenger-kilometre (pkm) estimates shown in Figure 3 for the metropolitan mass transit task. The length of an average metropolitan trip has approximately trebled since 1900 (to be currently about 7.5 kilometres per trip), due to the reduction in share of non-motorised travel and the average trip length of motorised travel roughly doubling between 1900 and 2013 (to a current level of approximately 10.7 kilometres per trip). This, coupled with the extensive passenger trip increases displayed in Figure 1, has resulted in the aggregate annual passenger-kilometre task for our capital cities growing from a level of only about 3.5 billion pkm during 1900 to around 41.7 billion pkm by 1960, and then to about 196.6 billion pkm by 2013 (see BITRE 2014a). Of the motorised portion of this total (188.7 billion pkm for 2013, see Figure 4) private road vehicles currently account for roughly 90 per cent (with cars, motorcycles and the non-freight use of commercial vehicles performing an estimated 169 billion pkm across the 8 capitals during 2013).

Trip lengths for UPT have exhibited similar overall growth trends – such that current averages (at about 11.5 kilometres travelled per trip, calculated across all the public transit modes) are also roughly twice those typical of average values at the start of last century. As evident from comparison of Figures 2 and 3, even though present Australian UPT passenger *volumes* (Figure 2) are well below historical highs (encountered during the mid-1940s), the expansion of average trip distances over time has been significant enough to result in the aggregate passenger *task performed* (Figure 3) by metropolitan mass transit currently being at the highest levels yet (at around 19.6 billion pkm, across the 8 capital cities, over the year ending 30 June 2013; or about 18 billion UPT pkm, if not including the rough estimates of charter/hire/private bus use).

Figure 4: Aggregate motorised passenger travel for the Australian capital cities, 1945–2013



Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2010, 2014a) and BITRE estimates.

Figure 4 plots total motorised passenger-kilometres for the various metropolitan areas, from the end of the Second World War, displaying the differing task levels of the 8 capital cities. Current aggregate values for Sydney and Melbourne are roughly comparable (where jointly these two largest of Australian cities account for over 60 per cent of the national pkm total for motorised metropolitan travel); with Sydney pkm totals having grown by around 1 per cent per annum between 2000 and 2013, and Melbourne by about 1.4 per cent per annum (see Tables 11 and 12). Recent growth rates in (motorised) passenger activity have differed appreciably amongst the other capital cities: with task level growth highest for Brisbane and Perth (both averaging about 1.7 per cent per annum for 2000 to 2013, Tables 13 and 15); well above the more moderate pkm growth of Darwin and Canberra (each averaging in the order of 1 per cent per annum, Tables 17 and 18); and with Adelaide and Hobart having the lowest averages (both averaging less than 0.4 per cent per annum, see Tables 14 and 16) over this period.

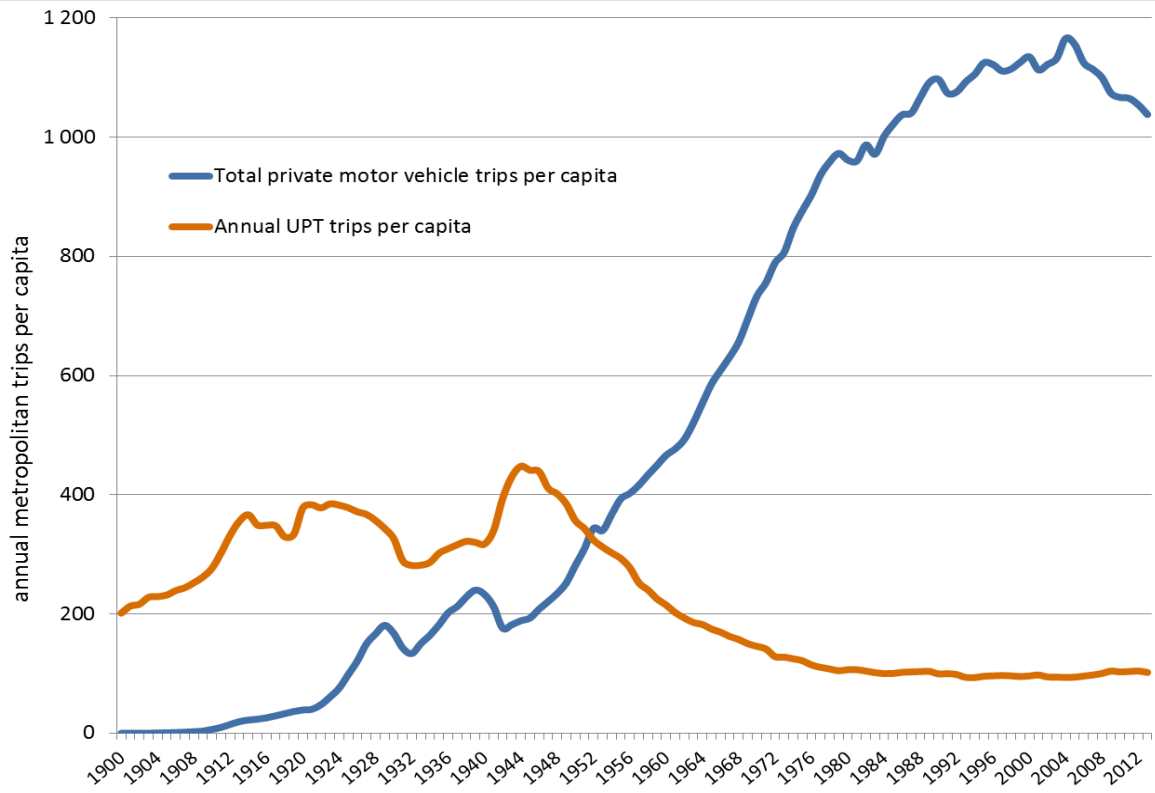
Most of the aggregate urban growth displayed in Figure 4, with total motorised pkm rising over nine-fold since 1945, has come from the increasing use of light motor vehicles (see Figure 8 and Table 19), with metropolitan car travel in Australia growing by over 28 times between 1945 and 2013 (from an estimated 1945 level of 5.36 billion pkm to about 150.9 billion by 2013).

Per capita trends

When analysing such long-term activity patterns it can also be instructive to consider how these travel level trends look in *per capita* terms. The number of Australian metropolitan inhabitants grew from about 1.43 million in 1900 to 4.34 million by 1945, with the eight State and Territory capitals reaching an aggregate population level of approximately 15.3 million by 30 June 2013 (counting residents within the ABS-defined Greater Capital City Statistical Areas, GCCSAs; see ABS 2014, ABS 2012 and Table 8).

Figure 5 displays the long-term pattern in per capita UPT trips (orange trend-line) for Australian metropolitan travel. Growth in per capita travel during the early part of the twentieth century resulted in national levels during the 1920s averaging around 370 public transit trips per person per annum. The dire income and employment effects flowing from the Great Depression led to substantial declines from these relatively high levels, but with the 1930s still averaging per capita rates in the vicinity of 300 UPT trips per annum.

Figure 5: Per capita trip generation rates for Australian urban transport, 1900–2013



Notes: 'UPT' values include total annual passenger trips on the public transport systems of all State and Territory capital cities – for ferries, light rail, heavy rail and public transit buses (including rough estimates of horse-drawn vehicles for early years) – divided by the resident metropolitan population (as at each year ending 30 June, totalled across the GCCSAs). Values for per capita 'private motor vehicle' use are primarily from car passengers, but also include contributions from motorcycles and the non-freight use of commercial vehicles.

Sources: Cosgrove (2011), CBCS (1973 and earlier), BTRE 2007, BITRE (2010, 2014a) and BITRE estimates.

During the 1940s, UPT trip generation rates recovered strongly; and petrol rationing (brought on by wartime fuel shortages) led not only to a pause in the growth of private car use (as apparent from the blue trend-line in Figure 5), but also significant passenger share moving to public transit (see Figure 8). The ensuing increase in per capita UPT travel was both rapid and unprecedented, with levels climbing to almost 450 trips per annum during the latter stages of the Second World War.

After the war (and particularly with the end of fuel rationing), growth in private motorisation accelerated, and UPT systems in all the capitals saw their market share steadily decrease over time, especially as car travel continued to grow in popularity. The afore-mentioned fall in aggregate UPT patronage is reflected in the per capita trip generation trends, with Figure 5 clearly demonstrating how the long downward trend in the transit participation rate (i.e. annual journeys per person) did not halt until about 1980. The metropolitan average rate for UPT has actually been fairly constant over the last three decades or so – typically hovering around the 100 trips per capita level. The level did fall below 94 UPT trips per annum by 2004 (during a surge in car use), before recovering ground during the strong UPT patronage increases of 2005 to 2009 (generally associated with service expansions to some systems and higher than average fuel prices; see discussion in BITRE 2014 and BITRE 2013b), and sitting at 102 UPT trips per capita for 2013.

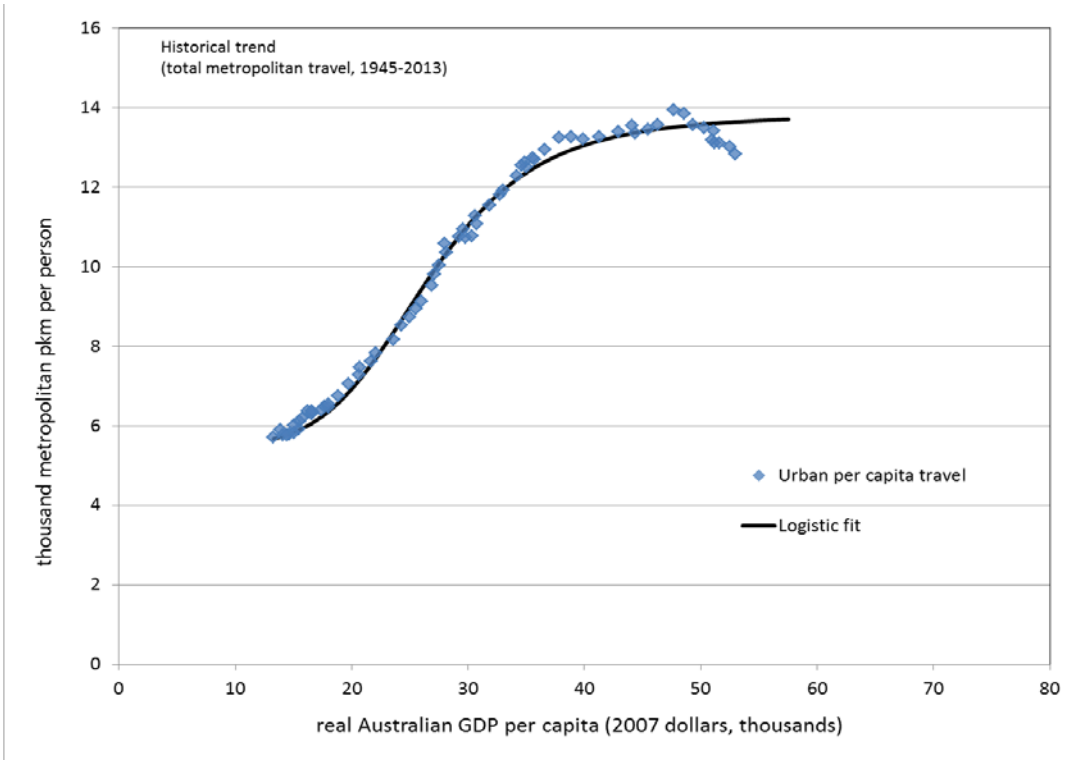
The average intensity of Australian car use has however seen a significant drop over the last decade (as shown by the curve for annual motor vehicle trips per capita in Figure 5), after reaching peak historical levels during 2004. The ensuing decline – following rises in oil prices from about 2006 and, after 2008, the economic effects flowing from the Global Financial Crisis (GFC) – has resulted in a current level for the trip generation rate of private vehicle travel that is well below the pre-2004 trend. Since the size of this departure from the long-term trend is quite uncharacteristic, when compared with such variations during the preceding six decades, making projections of likely future car use is presently somewhat more challenging than in the past. Current ambiguity regarding whether this decline in car travel rates will continue even further, or eventually reverse, introduces an element of uncertainty (into forecasts of aggregate urban vehicle use) not

really prevalent since per capita travel rates started slowing during the 1980s (see BITRE 2014a and BITRE 2014b for further discussion)[5].

An important relationship underlying BITRE projections of the historical task trends into the future concerns the connection between rising income levels and per capita daily travel. Figure 6 plots close to seven decades of per capita passenger task estimates, for Australian metropolitan travel (using the motorised pkm aggregates from Figure 4, after including a rough allowance for non-motorised travel), against the average income level at which that aggregate transport activity was undertaken.

As income levels increase, typically allowing broader travel options, the general tendency is for per capita travel to also increase, until approaching eventual 'saturation' levels, when the relevant amount of daily travel starts taking up as much time as people are willing to commit. So the average growth rate (in pkm per person) reducing gradually, from about the 1980s onwards, was not unexpected – especially with such *logistic* (or asymptotically limiting) curves having been fit to many cities' or countries' experiences in road activity (e.g. see BITRE 2012b and BITRE 2014b). However, for recent years (atypical, right-most points of the Figure 6 data), the widening departure from the long-term historical trend, as noted for the road vehicle values in Figure 5, is again evident. The extent of the gap between current levels and the pre-GFC trend means that returns to per capita values implied by that earlier trend-line are unlikely over the short to medium term, though an eventual return to such levels over the longer term remains a possibility.

Figure 6: Relationship of per capita Australian urban travel to per capita income levels

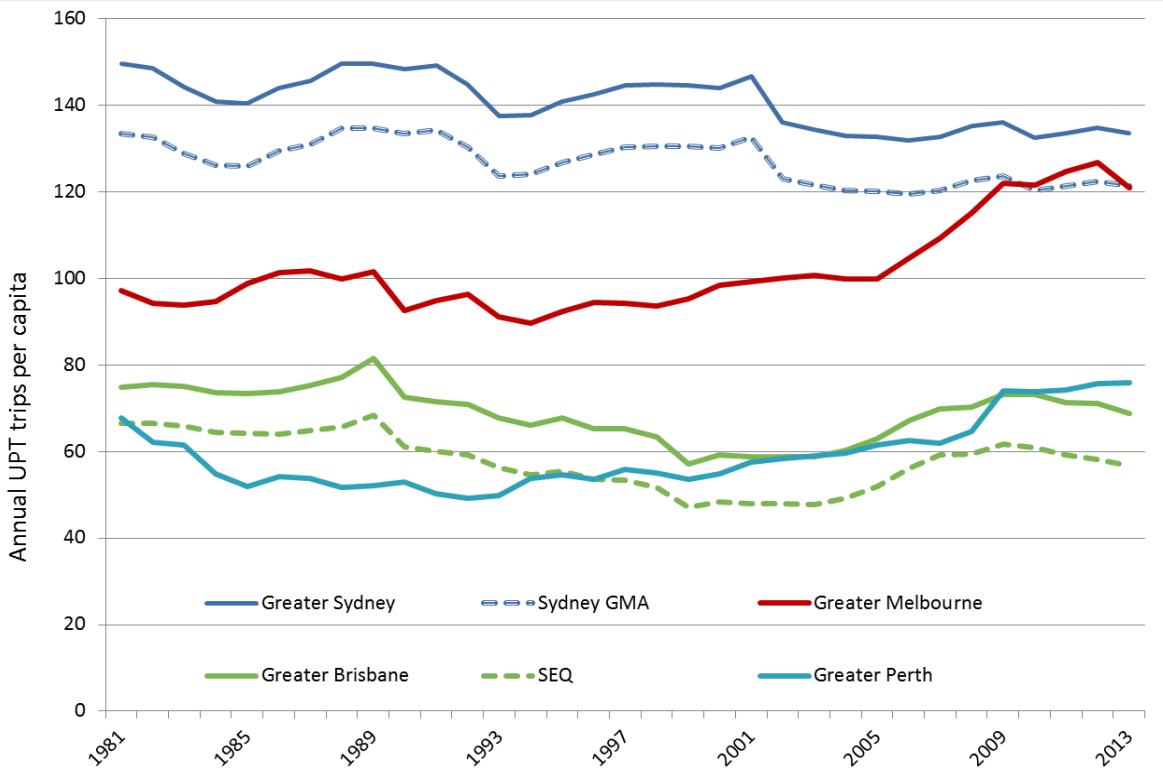


Notes: For each data point: y-axis value refers to total annual passenger travel (in pkm, including non-motorised travel) within the State and Territory capital cities, divided by the resident metropolitan population (as at each year ending 30 June, totalled across the capital city areas, GCCSAs); x-axis value refers to a proxy for average Australian income levels, calculated here as national GDP for the relevant year, divided by the national population level.

Sources: Cosgrove (2011), Cosgrove & Gargett (2007), ABS (2014), BTRE (2007), BITRE (2010, 2014a) and BITRE estimates.

[5] The implications of this relative uncertainty, in the possible intensity of future urban car use, for projections of urban traffic congestion costs will be reported in a forthcoming BITRE study, updating the results of a previous Bureau report – BTRE (2007) Working Paper 71. For discussion of modelling concerning the factors underlying recent declines in average urban passenger travel, and a range of trend forecast scenarios based on recent population projections, see Information Sheet 61 (*Saturating Daily Travel*, BITRE 2014b).

Figure 7: Variation in per capita trip generation rates for Australian public transit



Notes: Includes total UPT passenger trips (for years ending 30 June) – for ferries, light rail, heavy rail and public transit buses – divided by resident population levels (as at each year ending 30 June): with Greater Sydney, Greater Melbourne, Greater Brisbane and Greater Perth (which includes Mandurah) using ABS GCCSA values; Sydney Greater Metropolitan Area (GMA) adding the regional populations for the Statistical Areas of 'Illawarra' and 'Newcastle and Lake Macquarie' (and allowing for extra task contributions from regional UPT bus services) to Greater Sydney; and South East Queensland (SEQ) adding the regional populations for the Statistical Areas of 'Gold Coast' and 'Sunshine Coast' (allowing for regional bus services) to Greater Brisbane.

Sources: Cosgrove (2011), ABS (2014), BITRE (2014a) and BITRE estimates.

Per capita trend values calculated for public transit in each of the capital cities, as per those for aggregate UPT per person shown in Figure 5 (as the orange trend-line), can be somewhat informative (e.g. giving indications that the Sydney and Melbourne UPT trip generation rates are significantly higher than for any of the other capitals), but various complications make precise comparisons either over time or between jurisdictions less than straightforward. Some boundary issues[6] (such as urban fringes of large cities eventually subsuming previously regional urban centres) or matters of inclusion (where the per capita values use *resident* population figures, yet a proportion of urban travel is performed by visitors to the city, both domestic and international) already complicate interpretations over time of the *aggregate* per capita trends (as in Figure 5). For *city by city* calculations, not only are such boundary and inclusion issues intensified, since they will vary between cities, but further ambiguity can be introduced due to differing UPT catchment areas.

For example, regional areas generating travel on the Sydney train network – such as the Hunter and Illawarra regions – have probably had substantially more effect on recorded metropolitan patronage than is the case for Melbourne, where passenger values for regional rail-lines are generally noted separately[7]. Figure 7 illustrates some possible differences in average levels, for the per capita UPT trend values, depending on the chosen city boundary definitions. The upper line in Figure 7 divides the current annual estimates for total Sydney UPT patronage (see Table 5) by the resident metropolitan population (as at 30 June each year)[8] of Greater Sydney (as defined by ABS GCCSA) – where such per capita results are probably somewhat inflated

[6] For example, though recent task and per capita values are collated, wherever possible, using Greater Capital City Statistical Area boundary definitions (ABS 2012), some historical data collections relied on previous city area definitions (such as those for Statistical Divisions); and it is not always feasible to ascertain the exact impact the resulting boundary changes have on recorded patronage values.

[7] Some travel on V/Line services (the Victorian regional rail provider) is probably of a suburban commuting nature, and if occurring under other states' network arrangements could possibly be counted in 'metropolitan' rather than 'regional' statistics – suggesting that current Melbourne metropolitan rail totals may be slightly underestimated relative to passenger inclusions for some other states' metropolitan values.

[8] It would be slightly more accurate, when deriving a measure of population-driven trip generation, if the population values were calculated as averages over the full year, rather than just the level as at the end of the (financial) year; though this is only a minor concern compared with the main approximation issues facing such per capita estimations.

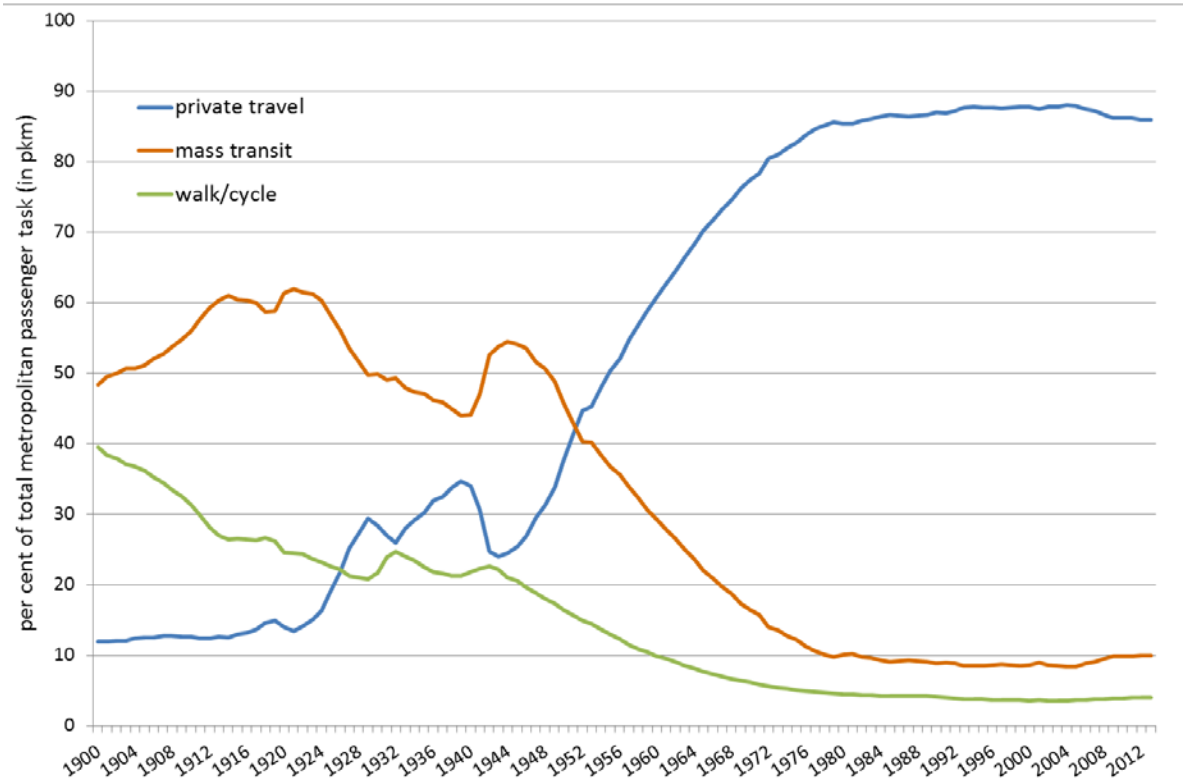
by the extent of the Sydney rail catchment area. The dashed blue line below this (denoted Sydney Greater Metropolitan Area) is the result of adding the major regional populations adjoining the Sydney GCCSA, and the relevant extra patronage from regional UPT bus services, to the Sydney per capita calculations. Whereas current Melbourne UPT per capita values are still below those derived using the 'Greater Sydney' data specifications, even after Melbourne's significant patronage increases over the last decade, they are comparable to the current 'Sydney GMA' results.

The green lines of Figure 7 then demonstrate another example of how the per capita results can vary, depending on how underlying urban boundaries and catchment areas influence relevant patronage volumes. The upper (solid) green line results from dividing patronage recorded on the UPT networks of Greater Brisbane (see Table 5) by the resident population of the Brisbane GCCSA; while the lower (dashed) green line for South East Queensland (SEQ) is the result of adding the populations of the Gold Coast and Sunshine Coast regions (along with the contribution of their route bus services) to the Greater Brisbane quantities.

For a further comparison, the Greater Perth trend is also included in Figure 7, making it apparent that three UPT systems having undergone significant expansions in recent times (either through the provision of extra service runs or completion of new infrastructure) – Melbourne, Brisbane and Perth – have all had increases in their average per capita patronage rates, compared with a decade ago.

Bearing in mind that various city results may not be strictly comparable (due to the discussed boundary/catchment area issues) per capita travel details are provided in Tables 9, 10 and 20.

Figure 8: Aggregate modal shares for passenger task within Australian capital cities, 1900–2013

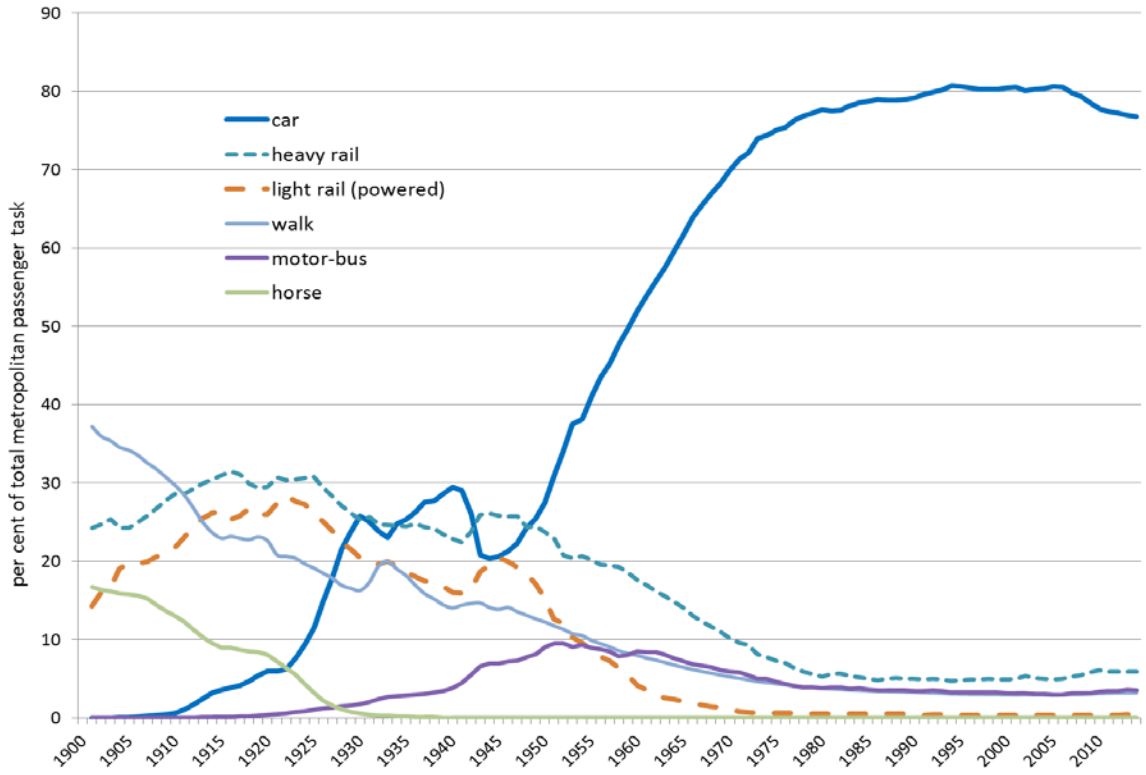


Notes: Based on total passenger task (in pkm for years ending 30 June) within the State and Territory capital cities, across all available transport modes (including rough estimates of the contribution from non-motorised travel).

Values for 'mass transit' include all bus travel (i.e. charter/hire buses and other private buses/minibuses as well as UPT route buses) and all other UPT modes (trains, light rail and ferries) – including early horse-drawn transit vehicles. Share due to 'private travel' comprises passenger car travel, contributions from other road vehicles such as light commercial vehicles (when used for non-freight purposes), motorcycles, and (for early years) also from horse use – such as for private carriages.

Sources: Cosgrove (2011), Cosgrove & Gargett (2007), BITRE (2014a) and BITRE estimates.

Figure 9: Modal shares for various metropolitan travel choices, 1900–2013



Notes: Share of total metropolitan passenger-kilometres (for years ending 30 June, within the State and Territory capital cities, including rough estimates of the contribution from non-motorised travel) – with values for 'light rail' including steam, cable and electric powered trams (as well as the Sydney Monorail); values for 'horse' include all horse use for urban passenger transport (both saddle horses and harness horses – for all horse-drawn carriage use, horse trams and horse buses); values for 'motor-bus' include all motor vehicles with 10 or more seats (i.e. charter/hire buses and other private use, as well as UPT buses, and include trolley-buses).

Sources: Cosgrove (2011), Cosgrove & Gargett (2007), BITRE (2014) and BITRE estimates.

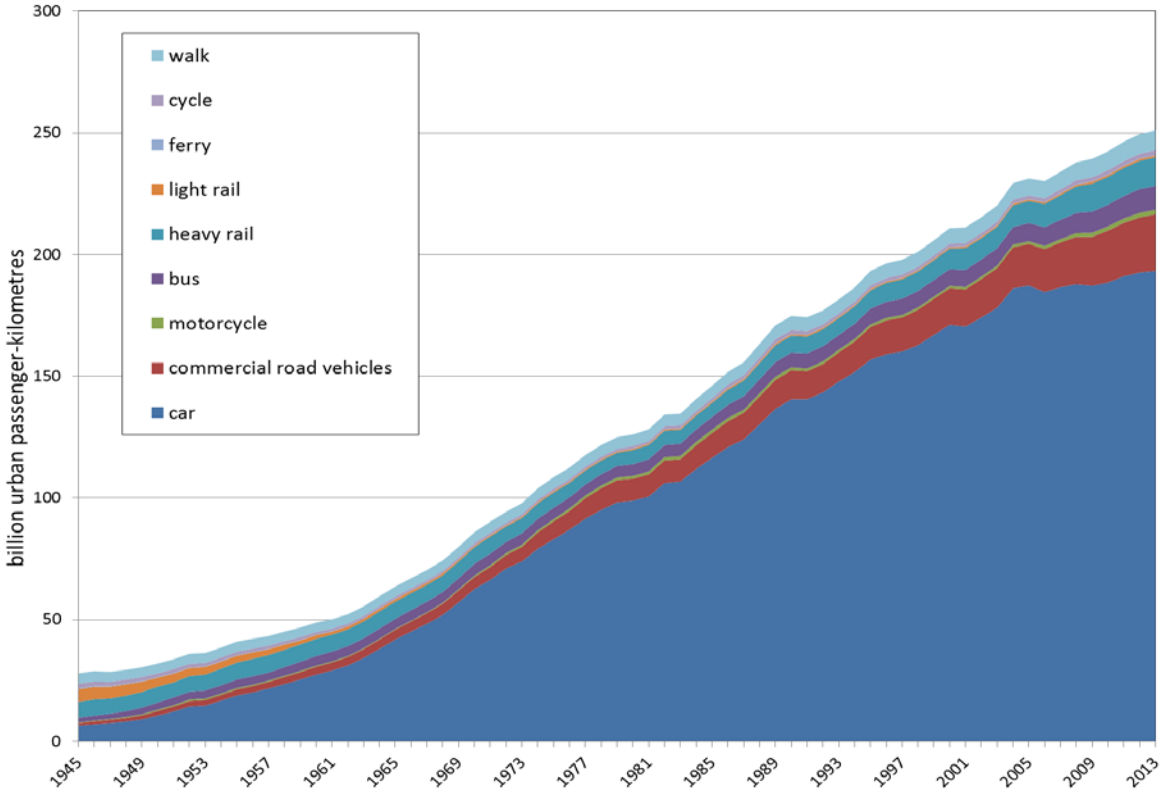
Mode share patterns

The results of using the estimated transport time-series to calculate long-term modal share trends, for the various types of urban passenger travel, are displayed in Figures 8 and 9 (with the former plotting the proportion of total metropolitan pkm due to private travel and aggregate mass transit).

Use of private road vehicles currently accounts for approximately 86 per cent of the aggregate passenger task within Australian capital cities, despite mass transit accounting for over half of total pkm during last century's initial decades. Urban public transport, though generally still a major component of peak travel into central business districts, currently represents only around 10 per cent of the total metropolitan passenger task (in pkm terms). Both these market shares have remained fairly constant since the early 1980s – after the long downward trend in the UPT share finally levelled off – though public transit has seen some gains in the modal split over recent times (moving from about 8.7 per cent of motorised metropolitan pkm in 2004 to about 10.4 per cent in 2013).

Figure 9 then subdivides the aggregated market shares given in Figure 8, showing the long-term trends in several of the major travel components, contrasting the large shifts in mode share patterns during the first three quarters of the twentieth century with the relative modal stability during the rest of the century. Some of the main developments over the last century are clear: the effective disappearance of horse travel by the 1920s, followed by an expansion of motor-bus services; the major decline in importance of light rail, as many tram networks close, from the 1950s on; suburban train travel, once the dominant mode, starting to lose market share, also from about the 1950s, before levelling off at about 5-6 per cent of metropolitan pkm; and the prominent growth in the share of car travel, with car's original rise (to around 80 per cent market share by the 1980s) only really interrupted by the effects of the Great Depression and the Second World War.

Figure 10: Total urban passenger task for Australia, across all modes, 1945–2013



Notes: Includes total annual passenger travel (for years ending 30 June) within all Australian urban areas (both State and Territory capital cities and provincial urban centres), across all available transport modes (including rough estimates of non-motorised travel).

Values for 'bus' include all motor vehicles with 10 or more seats (i.e. charter/hire buses and other private buses/minibuses, as well as UPT route buses). Values for 'commercial road vehicles' relate to non-freight use of such vehicles (primarily due to travel by light commercial vehicles such as utilities and panel vans).

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2010, 2014a) and BITRE estimates.

For total urban travel throughout Australia, rail's share is even lower than for the metropolitan areas, since UPT provision in cities apart from the capitals has typically relied on bus services. Figure 10 gives the modal contribution of the total urban passenger task (i.e. including both capital city and provincial urban travel), with private road vehicles performing around 87 per cent of aggregate passenger-kilometres within Australian cities for 2013.

UPT patronage time-series

Of the following tables (1 to 20), UPT patronage time-series are presented in Tables 1 to 5 (for Australian metropolitan passenger movement by public transit), with the remainder presenting related task and per capita estimates – which have been standardised, wherever possible, to cover all trip types (e.g. include UPT transfers as well as initial boardings) and passenger categories (i.e. include all school or other concessional travel, as well as full-fare paying customers). Estimates[9] are provided (on a financial year basis) for urban passenger travel, detailed by city and mode, with statistics covering either the period from 1900 to 2013 or 1945 to 2013, depending on the particular summary series (for full annual time-series see the BITRE website).

[9] The main areas of approximation within the estimates concern: interpolation of school travel volumes for the Sydney bus network; historical adjustments for school travel on the Darwin bus network; uncertainties around average trip lengths, and their exact variation over time or by mode; some historical values for various UPT systems only recording initial boarding, necessitating the use of adjustment scale factors; changes over time in fare to passenger count algorithms by some transit operators; little detailed information currently available on private use of buses (such as charter/hire operations), with such task estimates only roughly estimated using ABS *Survey of Motor Vehicle Use* results; limited detailed time-series data on non-motorised travel levels, meaning their task estimates are also very approximate, and not yet fully compiled city-by-city; private ferry use generally only roughly estimated; and boundary issues around suitable inclusions within urban statistical collections (especially, as discussed in the text, when dealing with per capita values).

Table 1: Public transit patronage on route buses, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(millions of passengers)					
1900	8.4	7.0	3.5	1.8	0.8	0.3	..	..	21.7
1910	4.9	2.8	2.2	1.0	0.6	0.2	..	..	11.8
1920	6.4	4.2	1.6	0.9	0.3	0.2	..	..	13.5
1930	50.5	16.6	0.7	2.0	1.8	0.2	..	0.5	72.3
1940	71.0	76.1	1.1	9.9	16.2	0.7	..	1.8	176.8
1945	159.8	139.4	8.1	18.0	22.4	1.9	0.2	3.3	353.0
1950	262.0	138.7	28.4	22.5	39.2	8.6	0.3	4.6	504.3
1960	290.4	106.0	51.7	65.9	56.2	18.8	0.6	3.9	593.4
1970	324.3	102.8	89.0	56.1	57.0	15.4	1.4	7.7	653.8
1980	264.4	80.8	59.9	57.6	56.1	13.3	1.2	18.7	552.0
1981	269.6	80.1	54.6	62.5	56.8	13.2	1.6	18.0	556.3
1982	263.4	80.9	56.1	63.3	53.8	10.9	1.8	17.2	547.4
1983	265.3	80.8	56.5	55.3	54.1	10.4	2.1	20.4	544.9
1984	263.4	82.1	53.3	55.5	46.6	11.2	2.1	22.9	537.2
1985	268.5	86.8	53.1	52.9	44.9	11.2	2.1	24.0	543.5
1986	269.5	88.3	52.0	53.5	48.0	11.2	2.2	23.1	547.8
1987	275.5	89.4	52.7	52.4	49.4	11.1	1.9	24.1	556.6
1988	281.5	91.5	54.9	53.7	48.8	10.4	2.4	24.8	568.0
1989	280.7	92.7	59.4	49.8	52.0	9.6	3.0	24.6	571.7
1990	273.6	90.2	56.0	51.1	54.9	10.0	2.9	25.1	563.7
1991	282.7	89.0	57.8	54.3	53.4	9.5	3.2	25.0	574.9
1992	281.7	89.0	60.5	53.3	51.3	9.6	3.2	24.4	572.9
1993	270.1	87.7	58.3	49.8	49.1	9.5	3.0	23.7	551.3
1994	271.7	85.7	58.7	48.9	46.0	9.3	3.1	23.1	546.4
1995	274.7	87.7	64.7	49.6	48.1	9.3	3.3	24.0	561.3
1996	282.8	89.0	60.5	48.2	45.6	9.1	3.6	24.8	563.8
1997	288.9	86.4	59.5	47.5	46.9	8.4	3.6	25.3	566.5
1998	293.2	85.3	57.4	46.9	46.7	7.8	3.6	24.8	565.7
1999	295.8	84.8	49.3	44.0	46.3	7.6	3.5	23.0	554.2
2000	291.6	84.2	52.6	43.0	48.6	7.5	3.5	22.4	553.4
2001	286.6	83.2	51.8	44.8	52.0	7.6	3.6	21.8	551.3
2002	274.5	82.2	53.7	46.2	54.5	7.6	3.7	21.8	544.1
2003	275.1	82.7	55.7	47.1	56.3	7.6	3.9	22.4	550.8
2004	273.1	81.6	59.0	46.5	59.0	7.7	3.9	22.2	553.0
2005	278.6	79.2	65.0	47.5	61.9	7.6	4.0	21.9	565.6
2006	279.0	80.5	72.6	49.6	63.9	7.6	4.1	22.9	580.2
2007	283.7	86.4	77.1	50.6	64.6	7.7	4.1	22.5	596.7
2008	291.7	92.9	81.9	51.6	65.7	7.4	4.2	22.5	617.9
2009	297.8	100.3	88.0	52.7	73.6	7.7	4.3	23.2	647.5
2010	292.5	104.0	93.1	53.6	74.8	7.8	4.7	23.6	654.1
2011	299.0	108.2	94.9	52.0	76.6	8.1	4.8	23.6	667.4
2012	304.3	125.4	98.0	51.0	80.6	8.0	4.9	23.7	696.0
2013	307.1	118.0	96.3	50.3	83.5	7.8	5.0	23.5	691.5

Note: Values denote total UPT bus passenger trips (including concessions and transfers) on all metropolitan public route/school bus services (i.e. does not include charter/hire operations) – including the use of trolley-buses and horse-drawn vehicles for early years.

Sources: Cosgrove (2011), BITRE (2014a) and BITRE estimates (based on transit operators' performance reporting).

Table 2: Public transit patronage on heavy rail, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(millions of passengers)					
1900	24.0	50.0	7.0	7.5	5.0	0.6	..	..	94.1
1910	48.1	82.3	10.1	13.8	11.2	1.0	..	..	166.5
1920	104.7	130.6	21.7	20.6	15.6	1.4	..	..	294.5
1930	138.2	159.7	19.1	16.6	12.3	1.4	..	..	347.2
1940	167.6	146.4	19.7	16.3	9.6	1.6	..	..	361.1
1945	237.0	197.1	31.2	22.7	15.6	2.3	..	..	505.8
1950	240.0	186.6	25.7	15.7	9.6	2.4	..	..	479.9
1960	240.0	163.3	27.5	16.0	13.2	2.0	..	..	462.0
1970	236.3	148.2	26.3	13.3	10.2	0.7	..	..	435.2
1980	201.3	100.8	28.0	13.1	7.2	0.0	..	..	350.4
1981	207.9	97.4	30.3	13.8	6.5	..	..	..	355.9
1982	214.9	89.0	32.4	14.7	6.1	..	..	..	357.1
1983	202.8	91.4	33.1	12.9	6.8	..	..	..	347.0
1984	198.1	94.4	35.8	12.4	8.7	..	..	..	349.4
1985	196.5	97.5	37.4	11.8	8.7	..	..	..	351.9
1986	213.9	102.9	40.3	12.8	9.8	..	..	..	379.7
1987	220.5	106.0	43.0	12.5	9.7	..	..	..	391.7
1988	240.2	100.1	45.0	9.5	9.4	..	..	..	404.2
1989	240.6	105.7	49.4	10.1	8.8	..	..	..	414.6
1990	244.6	107.1	43.3	10.0	8.4	..	..	..	413.4
1991	246.5	106.9	42.1	8.9	7.6	..	..	..	411.9
1992	238.8	109.0	40.1	8.4	9.6	..	..	..	405.8
1993	227.7	106.1	39.4	9.1	13.6	..	..	..	395.8
1994	231.3	101.1	38.4	10.5	22.9	..	..	..	404.3
1995	244.6	105.5	37.0	10.9	23.4	..	..	..	421.4
1996	249.9	109.3	39.2	10.8	25.9	..	..	..	435.1
1997	257.0	112.7	41.5	10.7	29.0	..	..	..	450.9
1998	258.4	113.1	41.5	10.5	29.2	..	..	..	452.7
1999	261.9	118.4	41.0	10.3	28.9	..	..	..	460.5
2000	270.4	125.4	42.2	10.3	29.5	..	..	..	477.7
2001	293.1	130.5	44.2	10.2	31.2	..	..	..	509.3
2002	267.1	135.4	45.0	10.5	31.0	..	..	..	489.0
2003	263.7	138.3	45.4	11.0	31.4	..	..	..	489.8
2004	263.6	139.8	47.0	11.3	31.1	..	..	..	492.8
2005	259.9	145.1	47.2	11.3	32.7	..	..	..	496.3
2006	261.9	162.4	49.9	11.9	34.1	..	..	..	520.2
2007	269.0	178.6	53.8	11.8	35.8	..	..	..	549.0
2008	283.3	201.2	53.3	11.8	42.6	..	..	..	592.2
2009	292.2	213.7	57.2	12.1	54.8	..	..	..	630.0
2010	289.1	219.3	54.9	11.8	56.4	..	..	..	631.4
2011	294.5	228.9	53.8	10.7	58.9	..	..	..	646.7
2012	303.7	222.0	52.4	9.6	63.0	..	..	..	650.8
2013	306.2	225.5	51.7	10.0	65.7	..	..	..	659.1

Note: Values denote total UPT train passenger trips (including concessions and transfers) on all metropolitan (heavy) rail network services.
Sources: Cosgrove (2011), BITRE (2012a, 2014a) and BITRE estimates (based on transit operators' performance reporting).

Table 3: Public transit patronage on light rail, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(millions of passengers)					
1900	63.0	46.2	15.4	14.5	4.0	1.7	..	..	144.8
1910	192.5	72.5	32.4	25.1	6.8	3.1	..	..	332.3
1920	308.0	201.7	69.2	50.8	18.9	8.4	..	..	657.0
1930	290.4	206.4	73.8	59.9	34.9	12.5	..	..	677.9
1940	292.5	173.8	93.4	53.9	31.9	12.8	..	..	658.4
1945	404.6	294.1	159.7	84.2	50.4	26.3	..	..	1019.3
1950	271.1	210.1	115.2	71.4	35.4	22.5	..	..	725.6
1960	45.0	177.9	80.0	3.0	0.0	4.2	..	..	310.1
1970	0.0	110.7	0.0	1.7	..	..	..	..	112.4
1980	0.0	98.9	..	3.0	..	..	..	..	101.9
1981	0.0	100.1	..	2.9	..	..	..	..	103.0
1982	0.0	102.4	..	2.9	..	..	..	..	105.3
1983	0.0	101.3	..	2.8	..	..	..	..	104.1
1984	0.0	102.1	..	2.8	..	..	..	..	104.9
1985	0.0	109.4	..	2.7	..	..	..	..	112.1
1986	0.0	112.4	..	2.6	..	..	..	..	115.0
1987	0.0	113.3	..	2.6	..	..	..	..	115.9
1988	0.0	115.6	..	2.4	..	..	..	..	118.0
1989	3.5	118.9	..	2.7	..	..	..	..	125.1
1990	3.5	95.6	..	2.2	..	..	..	..	101.3
1991	3.4	107.6	..	2.2	..	..	..	..	113.2
1992	3.4	112.0	..	2.1	..	..	..	..	117.5
1993	3.4	100.9	..	1.8	..	..	..	..	106.1
1994	3.4	104.0	..	1.8	..	..	..	..	109.2
1995	3.4	108.6	..	2.0	..	..	..	..	113.9
1996	4.0	114.1	..	1.9	..	..	..	..	120.0
1997	4.7	115.4	..	1.9	..	..	..	..	122.0
1998	5.4	117.2	..	1.9	..	..	..	..	124.5
1999	5.8	121.6	..	1.9	..	..	..	..	129.3
2000	6.2	129.8	..	1.9	..	..	..	..	138.0
2001	6.7	133.9	..	2.0	..	..	..	..	142.6
2002	6.3	137.2	..	2.0	..	..	..	..	145.5
2003	6.2	140.6	..	2.0	..	..	..	..	148.8
2004	5.1	142.5	..	2.2	..	..	..	..	149.7
2005	6.2	145.3	..	2.1	..	..	..	..	153.6
2006	5.7	151.1	..	2.1	..	..	..	..	158.8
2007	6.3	154.9	..	2.4	..	..	..	..	163.6
2008	6.2	158.3	..	2.6	..	..	..	..	167.0
2009	6.0	178.1	..	2.6	..	..	..	..	186.7
2010	5.8	175.6	..	3.0	..	..	..	..	184.4
2011	5.6	182.7	..	3.3	..	..	..	..	191.6
2012	5.9	191.6	..	2.9	..	..	..	..	200.4
2013	5.7	182.7	..	2.9	..	..	..	..	191.2

Note: Values denote total UPT passenger trips (including concessions and transfers) on all metropolitan light rail networks (such as tram services and the Sydney monorail).

Sources: Cosgrove (2011), BITRE (2014a) and BITRE estimates (based on transit operators' performance reporting).

Table 4: Public transit patronage on ferries, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(millions of passengers)					
1900	24.9	..	1.5	..	0.4	0.59	..	..	27.4
1910	26.4	..	2.0	..	0.7	0.73	..	..	29.8
1920	37.8	..	3.0	..	1.1	0.86	..	..	42.7
1930	48.5	..	2.4	..	1.3	0.90	..	..	53.2
1940	26.6	..	2.9	..	1.1	0.97	..	..	31.6
1945	31.5	..	3.4	..	1.5	1.05	..	..	37.4
1950	18.2	..	4.0	..	0.9	0.98	..	..	24.1
1960	13.1	..	5.4	..	0.4	0.27	..	..	19.1
1970	13.4	..	3.8	..	0.4	0.00	..	..	17.6
1980	12.9	..	1.4	..	0.4	0.59	..	..	15.3
1981	13.1	..	1.4	..	0.4	0.20	..	..	15.1
1982	14.7	..	1.4	..	0.5	0.10	..	..	16.7
1983	15.1	..	1.5	..	0.5	0.09	..	..	17.2
1984	15.5	..	1.3	..	0.5	0.08	..	..	17.3
1985	15.9	..	1.0	..	0.5	0.07	..	..	17.5
1986	16.4	..	1.1	..	0.5	0.06	..	..	18.0
1987	17.8	..	1.2	..	0.6	0.06	..	..	19.6
1988	15.3	..	1.3	..	0.6	0.05	..	..	17.3
1989	17.0	..	1.2	..	0.6	0.05	..	..	18.8
1990	18.6	..	1.1	..	0.6	0.04	..	..	20.4
1991	15.2	..	1.1	..	0.5	0.04	..	..	16.9
1992	13.2	..	1.2	..	0.5	0.03	..	..	15.0
1993	11.3	..	1.4	..	0.5	0.03	..	..	13.2
1994	11.7	..	1.6	..	0.5	0.03	..	..	13.8
1995	12.6	..	1.8	..	0.4	0.03	..	..	14.9
1996	13.3	..	2.2	..	0.5	0.03	..	..	16.0
1997	13.8	..	2.5	..	0.6	0.03	..	..	17.0
1998	13.9	..	2.9	..	0.6	0.03	..	..	17.5
1999	14.0	..	3.2	..	0.5	0.03	..	..	17.7
2000	14.1	..	3.4	..	0.5	0.03	..	..	18.0
2001	15.7	..	3.6	..	0.6	0.03	..	..	19.9
2002	14.5	..	3.5	..	0.5	0.03	..	..	18.5
2003	14.4	..	3.5	..	0.5	0.03	..	..	18.4
2004	14.9	..	4.0	..	0.5	0.03	..	..	19.4
2005	15.0	..	5.2	..	0.5	0.03	..	..	20.7
2006	15.0	..	5.7	..	0.5	0.03	..	..	21.2
2007	15.1	..	6.0	..	0.5	0.03	..	..	21.7
2008	15.0	..	6.1	..	0.5	0.03	..	..	21.6
2009	15.7	..	6.4	..	0.5	0.04	..	..	22.6
2010	15.9	..	6.3	..	0.5	0.04	..	..	22.7
2011	16.0	..	4.3	..	0.5	0.04	..	..	20.9
2012	16.3	..	5.3	..	0.5	0.04	..	..	22.2
2013	16.5	..	5.9	..	0.5	0.04	..	..	22.9

Note: Values denote total UPT ferry passenger trips (including concessions and transfers) on all metropolitan water transport services (including private ferry operators, but not purely cruising/recreational craft).

Sources: Cosgrove (2011), BITRE (2014a) and BITRE estimates (based on transit operators' performance reporting).

Table 5: Public transit patronage on all modes, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(millions of passengers)					
1900	120.3	103.2	27.4	23.8	10.2	3.2	..	..	288.0
1910	271.9	157.6	46.7	39.9	19.3	5.0	..	..	540.4
1920	456.9	336.5	95.5	72.3	35.9	10.8	..	..	1007.7
1930	527.6	382.7	96.0	78.4	50.4	15.0	..	0.5	1150.6
1940	557.7	396.3	117.2	80.1	58.8	16.1	..	1.8	1227.9
1945	832.9	630.6	202.3	124.9	89.8	31.5	0.2	3.3	1915.6
1950	791.2	535.4	173.4	109.6	85.1	34.4	0.3	4.6	1734.0
1960	588.5	447.2	164.6	84.9	69.7	25.3	0.6	3.9	1384.7
1970	574.1	361.8	119.1	71.1	67.6	16.1	1.4	7.7	1218.9
1980	478.7	280.5	89.3	73.6	63.8	13.9	1.2	18.7	1019.7
1981	490.5	277.6	86.3	79.2	63.7	13.4	1.6	18.0	1030.3
1982	493.0	272.3	89.9	80.9	60.4	11.0	1.8	17.2	1026.5
1983	483.2	273.5	91.1	71.0	61.3	10.5	2.1	20.4	1013.2
1984	477.1	278.6	90.4	70.7	55.8	11.3	2.1	22.9	1008.8
1985	480.9	293.7	91.5	67.4	54.1	11.3	2.1	24.0	1025.0
1986	499.8	303.7	93.4	68.9	58.3	11.3	2.2	23.1	1060.6
1987	513.8	308.7	96.9	67.5	59.6	11.2	1.9	24.1	1083.7
1988	537.0	307.2	101.2	65.6	58.9	10.5	2.4	24.8	1107.5
1989	541.8	317.2	110.0	62.5	61.4	9.6	3.0	24.6	1130.2
1990	540.3	292.9	100.4	63.3	63.9	10.0	2.9	25.1	1098.8
1991	547.8	303.4	101.0	65.5	61.5	9.6	3.2	25.0	1116.9
1992	537.2	309.9	101.8	63.7	61.5	9.6	3.2	24.4	1111.2
1993	512.5	294.7	99.1	60.6	63.2	9.5	3.0	23.7	1066.4
1994	518.1	290.8	98.6	61.2	69.4	9.3	3.1	23.1	1073.7
1995	535.3	301.7	103.5	62.5	71.9	9.3	3.3	24.0	1111.4
1996	550.1	312.5	101.8	60.9	72.0	9.1	3.6	24.8	1134.9
1997	564.5	314.5	103.5	60.1	76.5	8.4	3.6	25.3	1156.4
1998	571.0	315.5	101.9	59.3	76.5	7.9	3.6	24.8	1160.4
1999	577.4	324.8	93.4	56.2	75.7	7.6	3.5	23.0	1161.7
2000	582.3	339.5	98.2	55.2	78.6	7.5	3.5	22.4	1187.2
2001	602.1	347.7	99.6	57.0	83.8	7.6	3.6	21.8	1223.1
2002	562.4	354.8	102.1	58.7	86.0	7.6	3.7	21.8	1197.1
2003	559.4	361.7	104.6	60.1	88.2	7.6	3.9	22.4	1207.8
2004	556.7	363.9	110.0	60.0	90.6	7.7	3.9	22.2	1215.0
2005	559.8	369.6	117.4	60.9	95.1	7.6	4.0	21.9	1236.2
2006	561.5	394.0	128.2	63.6	98.5	7.7	4.1	22.9	1280.4
2007	574.1	419.9	136.9	64.8	100.9	7.7	4.1	22.5	1331.0
2008	596.1	452.4	141.2	66.0	108.8	7.5	4.2	22.5	1398.8
2009	611.6	492.1	151.6	67.4	128.8	7.8	4.3	23.2	1486.8
2010	603.3	498.9	154.2	68.4	131.6	7.8	4.7	23.6	1492.6
2011	615.2	519.8	153.1	65.9	136.0	8.2	4.8	23.6	1526.6
2012	630.3	539.0	155.7	63.5	144.1	8.1	4.9	23.7	1569.3
2013	635.4	526.2	153.8	63.2	149.7	7.8	5.0	23.5	1564.7

Note: Values denote total UPT passenger trips (including concessions and transfers) on all metropolitan train services, light rail, route/school bus services (i.e. does not include charter/hire operations) and ferries (including private operators, but not purely cruising/recreational services).

Sources: Cosgrove (2011), BITRE (2014a) and BITRE estimates (based on transit operators' performance reporting).

Table 6: Public transit task across all modes, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(billions of passenger-kilometres)					
1900	0.70	0.66	0.13	0.14	0.06	0.016	..	..	1.72
1910	1.57	1.16	0.23	0.27	0.13	0.026	..	..	3.38
1920	2.93	2.33	0.49	0.49	0.24	0.054	..	..	6.53
1930	3.68	2.86	0.49	0.53	0.30	0.073	..	0.002	7.94
1940	4.27	2.98	0.59	0.57	0.36	0.080	..	0.008	8.85
1945	6.35	4.60	1.02	0.89	0.55	0.156	0.001	0.016	13.59
1950	6.28	4.18	0.93	0.77	0.54	0.186	0.002	0.023	12.91
1960	5.87	3.78	1.03	0.65	0.56	0.171	0.004	0.022	12.09
1970	5.90	3.33	0.95	0.57	0.58	0.118	0.010	0.045	11.50
1980	5.17	2.63	0.85	0.63	0.59	0.100	0.010	0.116	10.10
1981	5.33	2.57	0.85	0.68	0.60	0.098	0.013	0.112	10.26
1982	5.47	2.44	0.90	0.71	0.57	0.080	0.015	0.109	10.29
1983	5.31	2.46	0.93	0.63	0.58	0.077	0.018	0.130	10.12
1984	5.25	2.51	0.95	0.63	0.53	0.083	0.018	0.148	10.12
1985	5.29	2.61	0.98	0.61	0.51	0.083	0.018	0.156	10.26
1986	5.60	2.74	1.04	0.63	0.56	0.083	0.019	0.152	10.83
1987	5.76	2.82	1.12	0.62	0.56	0.082	0.017	0.160	11.15
1988	6.09	2.78	1.20	0.60	0.55	0.077	0.021	0.166	11.49
1989	6.16	2.90	1.36	0.58	0.57	0.071	0.027	0.167	11.83
1990	6.24	2.77	1.26	0.59	0.58	0.074	0.027	0.172	11.72
1991	6.34	2.82	1.29	0.61	0.56	0.071	0.030	0.173	11.89
1992	6.21	2.96	1.28	0.61	0.56	0.071	0.030	0.170	11.89
1993	5.96	2.93	1.26	0.59	0.58	0.071	0.029	0.168	11.59
1994	6.08	2.92	1.25	0.62	0.67	0.069	0.030	0.165	11.79
1995	6.38	3.07	1.28	0.64	0.69	0.069	0.033	0.173	12.33
1996	6.54	3.14	1.29	0.63	0.70	0.068	0.037	0.181	12.59
1997	6.72	3.11	1.34	0.62	0.74	0.063	0.037	0.186	12.83
1998	6.78	3.04	1.33	0.62	0.74	0.059	0.037	0.184	12.80
1999	6.87	3.15	1.27	0.58	0.73	0.057	0.037	0.173	12.89
2000	7.02	3.31	1.36	0.57	0.76	0.056	0.038	0.170	13.28
2001	7.38	3.41	1.43	0.59	0.80	0.057	0.040	0.166	13.87
2002	6.90	3.53	1.47	0.62	0.82	0.057	0.040	0.169	13.60
2003	6.88	3.59	1.50	0.65	0.83	0.057	0.043	0.177	13.74
2004	6.91	3.67	1.57	0.67	0.84	0.058	0.043	0.179	13.94
2005	6.98	3.73	1.62	0.68	0.88	0.057	0.044	0.182	14.17
2006	7.07	4.07	1.78	0.71	0.91	0.058	0.045	0.185	14.82
2007	7.27	4.42	1.84	0.72	0.95	0.058	0.046	0.180	15.49
2008	7.64	4.90	1.87	0.73	1.09	0.057	0.047	0.180	16.52
2009	7.69	5.27	2.02	0.75	1.30	0.059	0.048	0.188	17.32
2010	7.50	5.39	2.02	0.75	1.32	0.059	0.052	0.192	17.28
2011	7.52	5.61	2.01	0.73	1.38	0.062	0.053	0.192	17.56
2012	7.76	5.64	2.02	0.70	1.50	0.061	0.054	0.193	17.93
2013	7.82	5.62	1.99	0.70	1.57	0.059	0.055	0.191	18.01

Note: Values denote total UPT passenger-kilometres performed by metropolitan heavy rail, light rail, route/school bus (i.e. does not include charter/hire operations) and ferry (including private operators, but not purely cruising/recreational craft) services.

Sources: Cosgrove (2011), BITRE (2014a) and BITRE estimates.

Table 7: Total passenger task by mode, Australian capital cities, 1900–2013

Year ending 30 June	Car	Motor-bus	Other road vehicles	Powered rail	Ferry	Horse	Walk/ cycle	Total motorised	Total - all modes
				(billions of passenger-kilometres)					
1900	0.00	0.00	0.00	1.37	0.18	0.59	1.40	1.55	3.54
1910	0.07	0.00	0.02	3.13	0.19	0.74	1.90	3.40	6.04
1920	0.63	0.05	0.11	6.19	0.28	0.77	2.62	7.25	10.64
1930	3.99	0.33	0.47	7.25	0.35	0.06	3.47	12.40	15.93
1940	5.82	0.89	1.00	7.70	0.27	0.01	4.39	15.68	20.08
1945	5.36	1.81	1.02	11.49	0.32	0.00	5.16	19.98	25.15
1950	8.74	2.70	1.94	10.07	0.19	0.00	4.67	23.63	28.30
1960	22.46	3.50	2.90	8.56	0.14	0.00	4.14	37.55	41.69
1970	50.78	4.13	4.37	7.42	0.14	0.00	4.38	66.84	71.22
1980	79.45	3.97	8.05	6.31	0.13	0.00	4.63	97.91	102.54
1981	80.77	4.06	8.12	6.40	0.13	0.00	4.64	99.48	104.12
1982	85.07	4.06	8.35	6.43	0.15	0.00	4.76	104.06	108.81
1983	85.48	4.11	8.20	6.24	0.15	0.00	4.73	104.18	108.91
1984	89.53	4.11	8.76	6.27	0.15	0.00	4.89	108.83	113.71
1985	93.03	4.19	9.13	6.32	0.16	0.00	5.04	112.84	117.87
1986	96.53	4.31	9.37	6.80	0.16	0.00	5.22	117.17	122.39
1987	98.93	4.44	9.55	7.01	0.17	0.00	5.37	120.11	125.48
1988	103.80	4.61	9.93	7.27	0.15	0.00	5.62	125.76	131.38
1989	108.61	4.75	10.36	7.53	0.17	0.00	5.87	131.41	137.28
1990	111.50	4.78	10.29	7.44	0.18	0.00	5.84	134.20	140.04
1991	111.40	4.87	9.86	7.55	0.15	0.00	5.66	133.84	139.50
1992	113.50	4.84	9.95	7.56	0.13	0.00	5.52	135.98	141.50
1993	116.86	4.74	10.18	7.42	0.11	0.00	5.53	139.31	144.84
1994	119.80	4.82	10.55	7.65	0.12	0.00	5.61	142.93	148.55
1995	123.70	4.99	11.20	8.04	0.13	0.00	5.76	148.05	153.81
1996	125.43	5.07	11.50	8.27	0.13	0.00	5.81	150.40	156.21
1997	126.16	5.13	11.56	8.48	0.14	0.00	5.81	151.45	157.26
1998	128.15	5.20	11.90	8.44	0.13	0.00	5.85	153.83	159.68
1999	131.42	5.15	12.03	8.62	0.13	0.00	5.93	157.36	163.29
2000	134.57	5.23	12.18	8.99	0.13	0.00	6.02	161.10	167.12
2001	133.95	5.29	12.34	9.55	0.15	0.00	6.07	161.28	167.35
2002	136.72	5.26	12.75	9.33	0.14	0.00	6.15	164.19	170.34
2003	139.75	5.33	13.04	9.41	0.14	0.00	6.28	167.68	173.96
2004	145.90	5.37	13.42	9.59	0.14	0.00	6.46	174.43	180.89
2005	146.57	5.51	13.54	9.70	0.15	0.00	6.59	175.47	182.06
2006	144.41	5.67	13.85	10.22	0.15	0.00	6.69	174.30	180.99
2007	145.76	5.82	14.46	10.74	0.15	0.00	6.87	176.92	183.79
2008	146.68	6.00	15.28	11.61	0.15	0.00	7.10	179.71	186.81
2009	146.14	6.30	15.81	12.19	0.15	0.00	7.31	180.59	187.90
2010	147.20	6.46	16.69	12.09	0.16	0.00	7.48	182.59	190.07
2011	149.18	6.68	17.17	12.24	0.15	0.00	7.70	185.42	193.12
2012	150.38	7.01	17.69	12.38	0.16	0.00	7.86	187.61	195.47
2013	150.87	6.98	18.17	12.48	0.16	0.00	7.94	188.67	196.60

Notes: 'Motor-bus' comprises all motor vehicles with 10 or more seats (both public and private use, and includes trolley-buses), 'rail' includes both heavy and light rail use, and 'horse' comprises both carriage and saddle horses (including horse buses and trams).

Sources: Cosgrove (2011), BITRE (2014a) and BITRE estimates.

Table 8: Resident population, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(thousand persons)					
1900	511.4	516.1	124.1	166.9	72.8	37.1	0.5	0.0	1428.9
1910	748.4	654.5	163.5	216.0	121.8	45.6	1.0	0.3	1951.1
1920	1053.2	854.6	241.0	283.1	171.8	57.5	1.3	1.1	2663.4
1930	1416.9	1119.5	327.5	344.7	239.1	67.9	1.6	7.3	3524.5
1940	1545.1	1209.6	390.9	367.5	259.3	79.4	4.3	12.4	3868.5
1945	1767.8	1300.3	459.0	421.1	289.6	82.2	5.2	16.2	4341.4
1950	1922.4	1437.9	537.0	486.3	345.7	95.0	9.2	25.8	4859.2
1960	2386.7	1973.6	724.3	663.5	488.4	129.5	16.0	56.4	6438.5
1970	2963.7	2550.3	931.6	866.9	718.0	154.3	36.7	139.4	8360.9
1980	3257.5	2835.5	1126.1	970.9	917.0	172.3	59.6	223.0	9561.9
1981	3279.5	2857.9	1154.7	979.9	941.5	174.1	62.1	225.6	9675.4
1982	3319.3	2887.7	1190.8	989.5	973.5	175.2	67.1	231.2	9834.4
1983	3351.1	2916.5	1213.6	1001.2	998.6	176.5	70.8	237.2	9965.5
1984	3385.0	2942.8	1227.5	1013.4	1017.9	178.8	75.0	243.4	10083.8
1985	3424.6	2970.6	1245.1	1024.3	1041.6	181.2	79.1	249.8	10216.3
1986	3471.5	2996.7	1265.1	1035.0	1076.0	182.8	82.8	257.4	10367.3
1987	3526.2	3035.2	1286.5	1043.9	1106.9	183.8	85.0	264.0	10531.6
1988	3588.0	3075.9	1313.0	1054.5	1139.5	184.4	84.0	270.7	10710.0
1989	3621.3	3121.0	1349.7	1067.9	1178.1	186.0	84.6	275.0	10883.6
1990	3642.8	3163.6	1382.5	1080.1	1207.7	189.1	85.7	280.9	11032.2
1991	3672.9	3194.7	1411.8	1093.5	1226.1	191.6	86.4	288.1	11165.2
1992	3708.3	3217.8	1435.6	1101.0	1247.5	193.5	87.8	293.7	11285.2
1993	3728.4	3231.6	1464.5	1103.9	1266.7	194.9	89.6	298.6	11378.2
1994	3758.8	3243.5	1494.7	1108.3	1289.8	195.9	91.4	301.8	11484.4
1995	3802.8	3268.9	1527.9	1111.7	1316.7	196.8	94.4	305.5	11624.6
1996	3856.6	3304.9	1560.3	1116.2	1343.4	197.1	97.2	309.3	11785.1
1997	3905.1	3336.1	1584.1	1122.5	1366.7	196.9	100.5	310.2	11922.1
1998	3945.1	3369.0	1607.4	1129.5	1388.8	196.5	102.4	311.2	12049.8
1999	3992.0	3407.3	1632.2	1136.4	1411.1	196.6	104.3	313.8	12193.7
2000	4041.7	3450.1	1660.7	1142.7	1432.1	197.0	106.4	316.9	12347.6
2001	4102.6	3500.2	1693.6	1148.0	1455.4	197.4	108.3	321.2	12526.6
2002	4135.6	3545.6	1735.7	1155.0	1474.5	197.7	108.7	324.3	12677.1
2003	4162.6	3594.0	1780.7	1162.3	1496.0	199.8	108.4	327.0	12830.8
2004	4184.8	3642.0	1823.5	1168.5	1520.2	201.8	109.2	328.6	12978.6
2005	4217.6	3697.4	1866.2	1177.3	1545.0	203.3	111.4	331.1	13149.2
2006	4256.2	3760.8	1908.3	1189.2	1576.9	204.8	113.5	334.9	13344.4
2007	4325.5	3841.8	1958.9	1204.2	1628.5	206.6	116.9	342.4	13624.8
2008	4409.6	3931.4	2012.2	1219.5	1682.9	209.2	121.2	348.1	13934.0
2009	4492.4	4031.8	2068.5	1237.4	1739.3	212.1	125.3	354.5	14261.2
2010	4555.5	4105.9	2108.3	1253.1	1781.1	214.7	127.8	361.4	14507.9
2011	4608.9	4169.4	2147.4	1264.1	1833.6	216.3	129.1	367.6	14736.4
2012	4676.1	4252.5	2193.3	1278.6	1904.9	216.9	132.3	374.8	15029.4
2013	4757.1	4348.0	2238.4	1291.7	1972.4	218.0	136.2	381.1	15342.8

Note: Values refer to estimated resident population (as at 30 June for each year) within the ABS Greater Capital City Statistical Areas (GCCSAs).

Sources: ABS (2014), BITRE estimates.

Table 9: Per capita UPT patronage, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(UPT trips per person per annum)					
1900	235.3	199.9	220.7	142.3	139.8	86.1	0.0	0.0	201.6
1910	363.3	240.8	285.7	184.6	158.5	110.2	0.0	0.0	277.0
1920	433.8	393.7	396.2	255.3	208.8	187.3	0.0	0.0	378.4
1930	372.4	341.8	293.0	227.4	210.7	220.8	0.0	71.7	326.4
1940	360.9	327.7	299.8	217.9	226.8	202.3	0.0	140.9	317.4
1945	471.2	485.0	440.9	296.7	310.3	383.7	29.8	200.8	441.2
1950	411.6	372.4	322.8	225.3	246.1	362.5	30.5	177.7	356.8
1960	246.6	226.6	227.3	128.0	142.7	195.1	38.8	68.6	215.1
1970	193.7	141.9	127.9	82.0	94.1	104.5	38.7	55.2	145.8
1980	146.9	98.9	79.3	75.9	69.6	80.8	20.3	83.9	106.6
1981	149.6	97.1	74.7	80.9	67.7	76.7	26.0	79.6	106.5
1982	148.5	94.3	75.5	81.8	62.0	62.5	27.4	74.5	104.4
1983	144.2	93.8	75.1	70.9	61.4	59.5	30.0	85.9	101.7
1984	140.9	94.7	73.7	69.7	54.9	63.1	28.2	94.0	100.0
1985	140.4	98.9	73.5	65.8	51.9	62.4	27.0	96.1	100.3
1986	144.0	101.3	73.8	66.6	54.2	61.8	26.4	89.7	102.3
1987	145.7	101.7	75.3	64.7	53.9	60.7	22.2	91.4	102.9
1988	149.7	99.9	77.1	62.2	51.7	56.7	28.1	91.5	103.4
1989	149.6	101.6	81.5	58.6	52.1	51.9	35.0	89.4	103.8
1990	148.3	92.6	72.6	58.6	52.9	53.1	34.2	89.3	99.6
1991	149.2	95.0	71.5	59.9	50.1	50.0	37.0	86.7	100.0
1992	144.9	96.3	70.9	57.8	49.3	49.7	36.1	83.0	98.5
1993	137.4	91.2	67.7	54.9	49.9	48.9	33.6	79.5	93.7
1994	137.8	89.7	66.0	55.3	53.8	47.6	33.6	76.5	93.5
1995	140.8	92.3	67.7	56.2	54.6	47.2	35.0	78.4	95.6
1996	142.6	94.5	65.3	54.6	53.6	46.2	37.5	80.2	96.3
1997	144.6	94.3	65.4	53.5	55.9	42.7	35.8	81.7	97.0
1998	144.7	93.7	63.4	52.5	55.1	40.0	34.8	79.8	96.3
1999	144.6	95.3	57.2	49.5	53.7	38.7	33.4	73.4	95.3
2000	144.1	98.4	59.1	48.3	54.9	38.1	32.6	70.7	96.1
2001	146.8	99.3	58.8	49.7	57.6	38.6	33.2	67.7	97.6
2002	136.0	100.1	58.8	50.8	58.3	38.7	33.8	67.2	94.4
2003	134.4	100.6	58.7	51.7	58.9	38.2	35.6	68.5	94.1
2004	133.0	99.9	60.3	51.3	59.6	38.2	35.9	67.5	93.6
2005	132.7	100.0	62.9	51.7	61.5	37.4	35.6	66.2	94.0
2006	131.9	104.8	67.2	53.4	62.5	37.5	36.0	68.2	96.0
2007	132.7	109.3	69.9	53.8	62.0	37.3	35.3	65.8	97.7
2008	135.2	115.1	70.2	54.1	64.7	35.8	34.8	64.7	100.4
2009	136.1	122.0	73.3	54.5	74.0	36.6	34.6	65.4	104.3
2010	132.4	121.5	73.1	54.6	73.9	36.5	36.6	65.4	102.9
2011	133.5	124.7	71.3	52.2	74.2	37.8	37.3	64.1	103.6
2012	134.8	126.7	71.0	49.7	75.7	37.2	37.2	63.1	104.4
2013	133.6	121.0	68.7	48.9	75.9	35.9	36.8	61.6	102.0

Note: Values denote total UPT passenger trips on metropolitan heavy rail, light rail, route/school bus services (i.e. does not include charter/hire operations) and ferries (including private operators, but not purely cruising/recreational services), divided by estimated resident population (as at 30 June for each year) within the ABS Greater Capital City Statistical Areas (GCCSAs).

Sources: Cosgrove (2011), ABS (2014), BITRE (2014a) and BITRE estimates.

Table 10: Per capita UPT task, Australian capital cities, 1900–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(thousand pkm per person per annum on UPT)					
1900	1.37	1.28	1.07	0.87	0.88	0.44	0.00	0.00	1.20
1910	2.09	1.77	1.42	1.24	1.08	0.57	0.00	0.00	1.73
1920	2.78	2.72	2.04	1.74	1.37	0.93	0.00	0.00	2.45
1930	2.60	2.55	1.49	1.53	1.26	1.08	0.00	0.33	2.25
1940	2.76	2.46	1.50	1.55	1.37	1.01	0.00	0.68	2.29
1945	3.59	3.53	2.22	2.12	1.92	1.90	0.17	0.99	3.13
1950	3.27	2.91	1.73	1.58	1.57	1.96	0.18	0.90	2.66
1960	2.46	1.92	1.42	0.98	1.15	1.32	0.25	0.39	1.88
1970	1.99	1.30	1.02	0.65	0.81	0.76	0.28	0.33	1.38
1980	1.59	0.93	0.76	0.65	0.64	0.58	0.16	0.52	1.06
1981	1.63	0.90	0.74	0.70	0.64	0.56	0.21	0.50	1.06
1982	1.65	0.84	0.76	0.72	0.58	0.46	0.23	0.47	1.05
1983	1.58	0.84	0.76	0.63	0.58	0.44	0.25	0.55	1.02
1984	1.55	0.85	0.77	0.62	0.52	0.46	0.24	0.61	1.00
1985	1.54	0.88	0.79	0.59	0.49	0.46	0.23	0.63	1.00
1986	1.61	0.91	0.83	0.61	0.52	0.46	0.23	0.59	1.04
1987	1.63	0.93	0.87	0.59	0.51	0.45	0.20	0.61	1.06
1988	1.70	0.90	0.92	0.57	0.48	0.42	0.25	0.61	1.07
1989	1.70	0.93	1.00	0.54	0.48	0.38	0.32	0.61	1.09
1990	1.71	0.88	0.91	0.55	0.48	0.39	0.32	0.61	1.06
1991	1.73	0.88	0.91	0.56	0.45	0.37	0.35	0.60	1.07
1992	1.68	0.92	0.89	0.55	0.45	0.37	0.35	0.58	1.05
1993	1.60	0.91	0.86	0.54	0.46	0.36	0.33	0.56	1.02
1994	1.62	0.90	0.83	0.56	0.52	0.35	0.33	0.55	1.03
1995	1.68	0.94	0.84	0.58	0.52	0.35	0.35	0.56	1.06
1996	1.70	0.95	0.83	0.57	0.52	0.34	0.38	0.58	1.07
1997	1.72	0.93	0.85	0.56	0.54	0.32	0.37	0.60	1.08
1998	1.72	0.90	0.83	0.55	0.54	0.30	0.37	0.59	1.06
1999	1.72	0.93	0.78	0.51	0.52	0.29	0.36	0.55	1.06
2000	1.74	0.96	0.82	0.50	0.53	0.28	0.35	0.54	1.08
2001	1.80	0.97	0.84	0.52	0.55	0.29	0.37	0.52	1.11
2002	1.67	1.00	0.85	0.54	0.55	0.29	0.37	0.52	1.07
2003	1.65	1.00	0.84	0.56	0.56	0.29	0.39	0.54	1.07
2004	1.65	1.01	0.86	0.57	0.55	0.29	0.40	0.55	1.07
2005	1.65	1.01	0.87	0.58	0.57	0.28	0.40	0.55	1.08
2006	1.66	1.08	0.93	0.60	0.58	0.28	0.40	0.55	1.11
2007	1.68	1.15	0.94	0.60	0.58	0.28	0.39	0.53	1.14
2008	1.73	1.25	0.93	0.60	0.65	0.27	0.39	0.52	1.19
2009	1.71	1.31	0.98	0.60	0.75	0.28	0.39	0.53	1.21
2010	1.65	1.31	0.96	0.60	0.74	0.28	0.41	0.53	1.19
2011	1.63	1.35	0.94	0.58	0.75	0.29	0.41	0.52	1.19
2012	1.66	1.33	0.92	0.55	0.79	0.28	0.41	0.51	1.19
2013	1.64	1.29	0.89	0.54	0.79	0.27	0.41	0.50	1.17

Note: Values denote total UPT passenger-kilometres on metropolitan heavy rail, light rail, route/school bus services (i.e. does not include charter/hire operations) and ferries (including private operators, but not purely cruising/recreational services), divided by estimated resident population (as at 30 June for each year) within the ABS Greater Capital City Statistical Areas (GCCSAs).

Sources: Cosgrove (2011), ABS (2014), BITRE (2014a) and BITRE estimates.

Table 11: Total motorised passenger task by mode for Sydney, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	1.88	0.25	0.05	3.27	2.023	0.78	0.30	8.55	74.5%
1950	3.03	0.49	0.12	3.48	1.355	1.31	0.17	9.95	63.5%
1960	7.90	0.86	0.08	4.05	0.225	1.53	0.13	14.77	40.2%
1970	17.68	1.31	0.17	4.05	0.000	1.82	0.13	25.16	23.8%
1980	25.79	2.13	0.27	3.52	0.000	1.63	0.12	33.48	15.8%
1981	26.15	2.18	0.29	3.64	0.000	1.69	0.13	34.07	16.0%
1982	27.17	2.26	0.32	3.76	0.000	1.68	0.14	35.33	15.8%
1983	26.97	2.22	0.33	3.55	0.000	1.72	0.15	34.94	15.5%
1984	28.34	2.37	0.34	3.47	0.000	1.76	0.15	36.42	14.8%
1985	29.65	2.47	0.34	3.44	0.000	1.81	0.15	37.86	14.3%
1986	30.51	2.54	0.31	3.71	0.000	1.84	0.16	39.07	14.6%
1987	31.20	2.56	0.29	3.78	0.000	1.91	0.17	39.91	14.7%
1988	32.59	2.63	0.27	4.08	0.000	1.97	0.15	41.69	14.9%
1989	33.83	2.68	0.27	4.13	0.013	2.00	0.16	43.09	14.6%
1990	34.70	2.63	0.24	4.23	0.012	1.96	0.18	43.95	14.5%
1991	34.69	2.47	0.21	4.30	0.012	2.01	0.15	43.83	14.7%
1992	35.29	2.47	0.20	4.20	0.012	2.01	0.13	44.31	14.3%
1993	36.35	2.51	0.20	4.03	0.012	1.95	0.11	45.17	13.5%
1994	37.20	2.60	0.20	4.13	0.012	1.98	0.11	46.23	13.5%
1995	38.26	2.78	0.19	4.40	0.012	2.02	0.12	47.78	13.7%
1996	38.48	2.91	0.18	4.50	0.013	2.08	0.12	48.30	13.9%
1997	38.43	2.97	0.18	4.64	0.013	2.13	0.13	48.50	14.3%
1998	38.99	3.09	0.17	4.67	0.013	2.18	0.12	49.23	14.2%
1999	39.93	3.19	0.16	4.74	0.015	2.21	0.12	50.38	14.1%
2000	40.94	3.27	0.16	4.90	0.018	2.21	0.12	51.62	14.0%
2001	40.68	3.32	0.16	5.27	0.021	2.21	0.14	51.80	14.7%
2002	41.52	3.40	0.17	4.89	0.020	2.12	0.13	52.24	13.7%
2003	42.18	3.48	0.16	4.89	0.019	2.12	0.13	52.98	13.5%
2004	44.28	3.57	0.17	4.94	0.016	2.10	0.13	55.21	13.0%
2005	44.55	3.56	0.18	4.96	0.020	2.16	0.13	55.57	13.1%
2006	43.70	3.59	0.20	5.05	0.020	2.16	0.13	54.86	13.4%
2007	43.99	3.71	0.22	5.22	0.022	2.20	0.13	55.49	13.6%
2008	44.26	3.89	0.24	5.51	0.022	2.27	0.13	56.32	14.1%
2009	44.20	3.98	0.26	5.49	0.021	2.36	0.13	56.44	14.2%
2010	44.63	4.17	0.28	5.32	0.020	2.36	0.14	56.92	13.8%
2011	45.43	4.29	0.30	5.27	0.019	2.44	0.14	57.89	13.6%
2012	45.63	4.40	0.31	5.47	0.020	2.51	0.14	58.47	13.9%
2013	45.73	4.52	0.32	5.51	0.019	2.53	0.14	58.78	14.0%
Annual growth, 2000-2013	0.86%	2.52%	5.45%	0.91%	0.60%	1.06%	1.11%	1.00%	-0.04%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all travel on heavy rail, light rail, ferries and buses (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses). 'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 12: Total motorised passenger task by mode for Melbourne, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	1.72	0.31	0.06	2.43	1.47	0.70	..	6.69	68.7%
1950	2.79	0.49	0.11	2.42	1.05	0.72	..	7.58	55.2%
1960	7.13	0.74	0.06	2.31	0.89	0.59	..	11.73	32.4%
1970	15.03	1.13	0.08	2.17	0.55	0.63	..	19.60	17.1%
1980	23.76	2.00	0.19	1.60	0.52	0.58	..	28.66	9.4%
1981	24.29	1.95	0.19	1.53	0.53	0.59	..	29.09	9.1%
1982	25.83	1.95	0.20	1.39	0.54	0.61	..	30.51	8.3%
1983	26.07	1.86	0.20	1.41	0.53	0.62	..	30.69	8.3%
1984	27.08	1.97	0.21	1.44	0.54	0.64	..	31.88	8.2%
1985	27.98	2.05	0.21	1.45	0.60	0.68	..	32.97	8.3%
1986	29.07	2.21	0.20	1.54	0.62	0.71	..	34.35	8.4%
1987	29.91	2.34	0.20	1.60	0.63	0.74	..	35.43	8.4%
1988	31.46	2.54	0.20	1.53	0.65	0.78	..	37.15	7.9%
1989	32.96	2.71	0.22	1.61	0.66	0.81	..	38.98	7.9%
1990	33.74	2.74	0.20	1.63	0.53	0.85	..	39.71	7.6%
1991	33.51	2.68	0.19	1.63	0.59	0.84	..	39.44	7.8%
1992	33.97	2.73	0.19	1.76	0.59	0.81	..	40.05	7.9%
1993	34.63	2.80	0.20	1.81	0.51	0.81	..	40.76	7.7%
1994	35.30	2.89	0.20	1.81	0.51	0.83	..	41.55	7.6%
1995	36.30	3.02	0.20	1.94	0.51	0.86	..	42.83	7.7%
1996	37.03	2.96	0.20	1.99	0.52	0.88	..	43.58	7.8%
1997	37.41	2.92	0.20	1.97	0.52	0.88	..	43.90	7.7%
1998	38.15	2.97	0.20	1.90	0.52	0.90	..	44.63	7.4%
1999	39.21	2.98	0.19	1.99	0.53	0.92	..	45.81	7.5%
2000	40.12	2.98	0.19	2.11	0.56	0.93	..	46.89	7.7%
2001	40.14	3.04	0.20	2.19	0.58	0.94	..	47.08	7.9%
2002	40.88	3.12	0.21	2.30	0.59	0.94	..	48.04	8.0%
2003	41.64	3.18	0.21	2.34	0.60	0.95	..	48.92	7.9%
2004	43.04	3.26	0.22	2.41	0.60	0.95	..	50.49	7.8%
2005	43.27	3.30	0.24	2.48	0.61	0.94	..	50.83	7.9%
2006	42.80	3.38	0.26	2.78	0.62	0.95	..	50.79	8.6%
2007	42.83	3.52	0.29	3.07	0.63	1.01	..	51.34	9.2%
2008	43.39	3.69	0.31	3.48	0.65	1.10	..	52.62	9.9%
2009	42.89	3.80	0.33	3.72	0.71	1.19	..	52.64	10.7%
2010	43.57	3.99	0.35	3.82	0.70	1.25	..	53.68	10.7%
2011	44.45	4.12	0.37	3.98	0.73	1.31	..	54.95	11.0%
2012	45.04	4.23	0.38	3.86	0.77	1.47	..	55.75	10.9%
2013	45.27	4.31	0.39	3.92	0.73	1.42	..	56.04	10.8%
Annual growth, 2000-2013	0.93%	2.89%	5.59%	4.91%	2.02%	3.33%	..	1.38%	2.70%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all travel on heavy rail, light rail and buses (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses). 'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 13: Total motorised passenger task by mode for Brisbane, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	0.49	0.11	0.01	0.32	0.64	0.05	0.007	1.63	62.6%
1950	0.81	0.21	0.05	0.28	0.46	0.18	0.008	2.00	46.6%
1960	2.09	0.34	0.04	0.35	0.32	0.35	0.011	3.51	29.5%
1970	5.02	0.49	0.05	0.34	0.00	0.62	0.008	6.53	14.9%
1980	8.78	1.02	0.15	0.38	..	0.49	0.003	10.83	8.1%
1981	9.16	1.03	0.16	0.42	..	0.45	0.003	11.23	7.8%
1982	9.88	1.07	0.17	0.46	..	0.47	0.003	12.05	7.7%
1983	10.07	1.08	0.17	0.47	..	0.49	0.003	12.29	7.9%
1984	10.50	1.21	0.17	0.52	..	0.47	0.003	12.87	7.7%
1985	10.82	1.29	0.18	0.55	..	0.49	0.002	13.33	7.8%
1986	11.40	1.37	0.17	0.62	..	0.49	0.002	14.04	7.9%
1987	11.68	1.43	0.17	0.68	..	0.51	0.003	14.47	8.2%
1988	12.39	1.50	0.18	0.74	..	0.55	0.003	15.36	8.4%
1989	13.23	1.54	0.21	0.85	..	0.61	0.003	16.44	8.9%
1990	13.69	1.54	0.20	0.78	..	0.58	0.003	16.80	8.1%
1991	13.94	1.49	0.20	0.79	..	0.62	0.003	17.04	8.3%
1992	14.53	1.50	0.21	0.75	..	0.64	0.003	17.63	7.9%
1993	15.28	1.53	0.21	0.74	..	0.63	0.004	18.39	7.5%
1994	15.80	1.62	0.20	0.72	..	0.66	0.005	19.00	7.3%
1995	16.46	1.79	0.19	0.70	..	0.72	0.005	19.86	7.1%
1996	16.87	1.93	0.17	0.74	..	0.71	0.007	20.43	7.1%
1997	17.01	1.99	0.17	0.79	..	0.71	0.008	20.68	7.3%
1998	17.34	2.14	0.16	0.80	..	0.71	0.009	21.15	7.2%
1999	17.70	2.19	0.15	0.81	..	0.65	0.010	21.51	6.8%
2000	18.21	2.25	0.15	0.87	..	0.69	0.010	22.17	7.1%
2001	18.24	2.28	0.16	0.94	..	0.70	0.011	22.32	7.4%
2002	18.81	2.40	0.17	0.96	..	0.72	0.010	23.06	7.3%
2003	19.36	2.48	0.16	0.97	..	0.74	0.011	23.73	7.3%
2004	20.70	2.57	0.17	1.01	..	0.78	0.011	25.25	7.1%
2005	20.89	2.59	0.18	0.99	..	0.84	0.015	25.51	7.2%
2006	20.74	2.64	0.20	1.07	..	0.94	0.016	25.61	7.9%
2007	21.18	2.75	0.22	1.09	..	0.98	0.017	26.24	8.0%
2008	21.46	2.93	0.24	1.08	..	1.03	0.017	26.76	7.9%
2009	21.06	3.05	0.26	1.17	..	1.11	0.018	26.67	8.6%
2010	21.03	3.29	0.28	1.12	..	1.19	0.018	26.92	8.6%
2011	21.14	3.36	0.28	1.10	..	1.24	0.012	27.13	8.6%
2012	21.24	3.48	0.29	1.07	..	1.29	0.015	27.38	8.7%
2013	21.38	3.59	0.30	1.05	..	1.27	0.016	27.62	8.5%
Annual growth, 2000-2013	1.24%	3.67%	5.59%	1.50%	..	4.83%	3.76%	1.70%	1.41%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all travel on heavy rail, light rail, ferries and buses (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses). 'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 14: Total motorised passenger task by mode for Adelaide, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	0.76	0.09	0.02	0.27	0.51	0.11	..	1.77	50.6%
1950	1.22	0.16	0.07	0.19	0.44	0.14	..	2.23	34.5%
1960	2.71	0.31	0.07	0.21	0.02	0.43	..	3.74	17.5%
1970	5.70	0.38	0.05	0.17	0.01	0.39	..	6.71	8.6%
1980	8.30	0.58	0.11	0.18	0.02	0.46	..	9.64	6.8%
1981	8.17	0.58	0.11	0.19	0.02	0.51	..	9.58	7.5%
1982	8.48	0.58	0.12	0.20	0.02	0.52	..	9.93	7.5%
1983	8.53	0.57	0.12	0.18	0.02	0.47	..	9.90	6.7%
1984	8.94	0.63	0.12	0.17	0.02	0.48	..	10.37	6.5%
1985	9.31	0.67	0.12	0.17	0.02	0.46	..	10.75	6.0%
1986	9.62	0.67	0.11	0.18	0.02	0.47	..	11.07	6.1%
1987	9.81	0.66	0.10	0.18	0.02	0.47	..	11.24	5.9%
1988	10.20	0.68	0.10	0.13	0.02	0.50	..	11.62	5.6%
1989	10.58	0.71	0.10	0.14	0.02	0.47	..	12.02	5.2%
1990	10.75	0.71	0.09	0.14	0.02	0.50	..	12.20	5.4%
1991	10.66	0.69	0.08	0.12	0.02	0.53	..	12.10	5.5%
1992	10.75	0.70	0.08	0.11	0.01	0.53	..	12.19	5.4%
1993	10.94	0.72	0.07	0.12	0.01	0.51	..	12.38	5.2%
1994	10.94	0.74	0.07	0.15	0.02	0.52	..	12.44	5.5%
1995	11.03	0.78	0.07	0.16	0.01	0.54	..	12.60	5.6%
1996	11.00	0.80	0.07	0.15	0.01	0.54	..	12.57	5.6%
1997	11.06	0.79	0.06	0.15	0.01	0.54	..	12.62	5.6%
1998	11.22	0.81	0.06	0.14	0.01	0.54	..	12.79	5.5%
1999	11.61	0.81	0.06	0.14	0.01	0.53	..	13.15	5.2%
2000	12.00	0.80	0.06	0.13	0.01	0.53	..	13.53	5.0%
2001	11.96	0.79	0.06	0.13	0.01	0.55	..	13.50	5.1%
2002	12.13	0.80	0.06	0.14	0.02	0.56	..	13.71	5.2%
2003	12.53	0.82	0.06	0.16	0.02	0.57	..	14.16	5.3%
2004	12.66	0.83	0.07	0.18	0.02	0.57	..	14.32	5.3%
2005	12.41	0.83	0.07	0.18	0.02	0.58	..	14.08	5.5%
2006	12.17	0.84	0.08	0.19	0.02	0.61	..	13.90	5.9%
2007	12.26	0.86	0.08	0.19	0.02	0.62	..	14.03	5.9%
2008	11.91	0.91	0.09	0.19	0.02	0.63	..	13.76	6.1%
2009	11.83	0.94	0.10	0.20	0.02	0.64	..	13.72	6.2%
2010	11.95	0.98	0.10	0.19	0.02	0.65	..	13.90	6.2%
2011	11.88	1.01	0.11	0.17	0.02	0.65	..	13.84	6.1%
2012	11.78	1.03	0.11	0.16	0.02	0.65	..	13.74	6.0%
2013	11.80	1.05	0.11	0.16	0.02	0.64	..	13.78	6.0%
Annual growth, 2000-2013	-0.13%	2.09%	5.17%	1.62%	2.54%	1.53%	..	0.14%	1.43%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all travel on heavy rail, light rail and buses (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses). 'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 15: Total motorised passenger task by mode for Perth, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	0.38	0.07	0.02	0.16	0.25	0.15	0.0020	1.03	54.3%
1950	0.66	0.14	0.05	0.10	0.18	0.27	0.0012	1.39	39.2%
1960	1.92	0.25	0.05	0.14	0.00	0.43	0.0005	2.79	20.5%
1970	5.28	0.44	0.05	0.12	..	0.49	0.0005	6.37	9.5%
1980	8.88	1.00	0.11	0.08	..	0.56	0.0006	10.63	6.1%
1981	8.95	1.02	0.11	0.07	..	0.58	0.0006	10.74	6.1%
1982	9.45	1.03	0.13	0.07	..	0.55	0.0006	11.22	5.5%
1983	9.53	0.99	0.13	0.08	..	0.55	0.0006	11.29	5.6%
1984	10.15	1.04	0.14	0.11	..	0.48	0.0006	11.91	4.9%
1985	10.52	1.06	0.14	0.11	..	0.46	0.0006	12.29	4.6%
1986	10.90	1.07	0.13	0.12	..	0.50	0.0007	12.72	4.9%
1987	11.19	1.06	0.13	0.12	..	0.51	0.0008	13.02	4.9%
1988	11.78	1.10	0.13	0.12	..	0.51	0.0008	13.64	4.6%
1989	12.36	1.16	0.14	0.11	..	0.54	0.0008	14.32	4.5%
1990	12.73	1.19	0.13	0.11	..	0.57	0.0008	14.73	4.6%
1991	12.65	1.15	0.11	0.09	..	0.55	0.0007	14.56	4.4%
1992	12.85	1.17	0.11	0.12	..	0.53	0.0007	14.77	4.4%
1993	13.31	1.22	0.10	0.17	..	0.52	0.0007	15.32	4.5%
1994	14.06	1.30	0.09	0.30	..	0.51	0.0006	16.26	5.0%
1995	14.96	1.41	0.09	0.30	..	0.52	0.0006	17.29	4.8%
1996	15.28	1.49	0.09	0.34	..	0.52	0.0006	17.71	4.8%
1997	15.44	1.49	0.09	0.38	..	0.52	0.0008	17.91	5.0%
1998	15.66	1.51	0.08	0.39	..	0.53	0.0009	18.17	5.0%
1999	16.08	1.51	0.08	0.38	..	0.52	0.0007	18.58	4.9%
2000	16.31	1.52	0.08	0.39	..	0.55	0.0007	18.85	5.0%
2001	16.11	1.52	0.09	0.41	..	0.57	0.0008	18.71	5.3%
2002	16.44	1.58	0.09	0.41	..	0.59	0.0007	19.11	5.2%
2003	16.89	1.62	0.09	0.42	..	0.60	0.0006	19.62	5.2%
2004	17.74	1.68	0.10	0.42	..	0.62	0.0006	20.56	5.0%
2005	18.02	1.70	0.11	0.44	..	0.64	0.0006	20.91	5.2%
2006	17.68	1.74	0.12	0.46	..	0.65	0.0007	20.65	5.4%
2007	18.08	1.82	0.14	0.50	..	0.65	0.0007	21.20	5.4%
2008	18.18	1.93	0.15	0.66	..	0.62	0.0006	21.54	5.9%
2009	18.69	2.00	0.17	0.87	..	0.64	0.0007	22.36	6.7%
2010	18.56	2.10	0.18	0.90	..	0.64	0.0006	22.38	6.9%
2011	18.79	2.16	0.19	0.94	..	0.66	0.0006	22.74	7.1%
2012	19.15	2.24	0.19	1.02	..	0.71	0.0006	23.31	7.4%
2013	19.16	2.32	0.20	1.06	..	0.74	0.0006	23.48	7.7%
Annual growth, 2000-2013	1.25%	3.31%	7.23%	8.00%	..	2.32%	-1.05%	1.70%	3.38%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all travel on heavy rail, light rail, ferries and buses (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses). 'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 16: Total motorised passenger task by mode for Hobart, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	0.09	0.01	0.00	0.021	0.119	0.013	0.0042	0.27	59.0%
1950	0.15	0.03	0.01	0.022	0.101	0.060	0.0039	0.37	50.3%
1960	0.40	0.06	0.01	0.020	0.019	0.134	0.0011	0.63	27.7%
1970	0.84	0.08	0.01	0.008	0.000	0.115	0.0000	1.05	11.7%
1980	1.39	0.15	0.01	..	..	0.109	0.0023	1.65	6.7%
1981	1.42	0.15	0.01	..	..	0.109	0.0008	1.69	6.5%
1982	1.47	0.16	0.01	..	..	0.091	0.0004	1.74	5.3%
1983	1.47	0.17	0.01	..	..	0.089	0.0004	1.73	5.1%
1984	1.53	0.18	0.01	..	..	0.097	0.0003	1.82	5.3%
1985	1.59	0.20	0.01	..	..	0.098	0.0003	1.90	5.2%
1986	1.67	0.19	0.01	..	..	0.100	0.0003	1.98	5.1%
1987	1.68	0.19	0.01	..	..	0.101	0.0002	1.99	5.1%
1988	1.75	0.19	0.01	..	..	0.096	0.0002	2.04	4.7%
1989	1.82	0.19	0.01	..	..	0.091	0.0002	2.11	4.3%
1990	1.91	0.18	0.01	..	..	0.097	0.0002	2.20	4.4%
1991	1.92	0.17	0.01	..	..	0.093	0.0002	2.20	4.2%
1992	1.95	0.18	0.01	..	..	0.092	0.0001	2.24	4.1%
1993	2.02	0.19	0.01	..	..	0.092	0.0001	2.32	4.0%
1994	2.07	0.21	0.01	..	..	0.093	0.0001	2.38	3.9%
1995	2.10	0.22	0.01	..	..	0.094	0.0001	2.43	3.9%
1996	2.12	0.22	0.01	..	..	0.094	0.0001	2.45	3.8%
1997	2.12	0.22	0.01	..	..	0.090	0.0001	2.44	3.7%
1998	2.09	0.22	0.01	..	..	0.087	0.0001	2.41	3.6%
1999	2.08	0.22	0.01	..	..	0.086	0.0001	2.39	3.6%
2000	2.08	0.22	0.01	..	..	0.086	0.0001	2.40	3.6%
2001	2.02	0.22	0.01	..	..	0.086	0.0001	2.34	3.7%
2002	2.06	0.23	0.01	..	..	0.086	0.0001	2.39	3.6%
2003	2.14	0.23	0.01	..	..	0.086	0.0001	2.47	3.5%
2004	2.25	0.24	0.01	..	..	0.087	0.0001	2.58	3.4%
2005	2.20	0.24	0.01	..	..	0.086	0.0001	2.54	3.4%
2006	2.17	0.24	0.01	..	..	0.086	0.0001	2.51	3.4%
2007	2.19	0.25	0.01	..	..	0.086	0.0001	2.55	3.4%
2008	2.19	0.27	0.01	..	..	0.085	0.0001	2.56	3.3%
2009	2.16	0.28	0.02	..	..	0.087	0.0001	2.54	3.4%
2010	2.14	0.29	0.02	..	..	0.088	0.0002	2.53	3.5%
2011	2.12	0.29	0.02	..	..	0.091	0.0002	2.53	3.6%
2012	2.12	0.30	0.02	..	..	0.090	0.0002	2.53	3.6%
2013	2.09	0.31	0.02	..	..	0.088	0.0002	2.50	3.5%
Annual growth, 2000-2013	0.03%	2.54%	5.29%	..	..	0.13%	3.05%	0.33%	-0.19%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all travel on heavy rail, light rail, ferries and buses (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses). 'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 17: Total motorised passenger task by mode for Darwin, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	0.006	0.004	0.000	..	..	0.001	..	0.01	7.9%
1950	0.011	0.008	0.000	..	..	0.002	..	0.02	8.0%
1960	0.039	0.012	0.001	..	..	0.004	..	0.06	7.4%
1970	0.183	0.033	0.003	..	..	0.011	..	0.23	5.0%
1980	0.383	0.104	0.011	..	..	0.016	..	0.51	3.0%
1981	0.410	0.108	0.012	..	..	0.021	..	0.55	3.8%
1982	0.452	0.109	0.015	..	..	0.024	..	0.60	4.1%
1983	0.466	0.104	0.015	..	..	0.029	..	0.61	4.7%
1984	0.509	0.109	0.016	..	..	0.029	..	0.66	4.4%
1985	0.552	0.111	0.016	..	..	0.029	..	0.71	4.2%
1986	0.606	0.116	0.015	..	..	0.030	..	0.77	4.0%
1987	0.631	0.118	0.014	..	..	0.028	..	0.79	3.5%
1988	0.650	0.122	0.013	..	..	0.034	..	0.82	4.1%
1989	0.660	0.123	0.013	..	..	0.043	..	0.84	5.1%
1990	0.681	0.120	0.012	..	..	0.043	..	0.86	5.0%
1991	0.685	0.115	0.010	..	..	0.048	..	0.86	5.6%
1992	0.702	0.117	0.010	..	..	0.048	..	0.88	5.5%
1993	0.725	0.122	0.010	..	..	0.047	..	0.90	5.2%
1994	0.743	0.127	0.010	..	..	0.048	..	0.93	5.2%
1995	0.790	0.136	0.009	..	..	0.053	..	0.99	5.3%
1996	0.827	0.143	0.009	..	..	0.057	..	1.04	5.5%
1997	0.844	0.149	0.009	..	..	0.058	..	1.06	5.5%
1998	0.859	0.156	0.008	..	..	0.058	..	1.08	5.4%
1999	0.871	0.159	0.008	..	..	0.057	..	1.10	5.2%
2000	0.882	0.159	0.008	..	..	0.058	..	1.11	5.3%
2001	0.852	0.158	0.008	..	..	0.060	..	1.08	5.6%
2002	0.856	0.164	0.009	..	..	0.061	..	1.09	5.6%
2003	0.865	0.167	0.008	..	..	0.064	..	1.10	5.8%
2004	0.895	0.172	0.009	..	..	0.064	..	1.14	5.6%
2005	0.883	0.174	0.010	..	..	0.065	..	1.13	5.7%
2006	0.874	0.180	0.011	..	..	0.066	..	1.13	5.9%
2007	0.902	0.189	0.012	..	..	0.066	..	1.17	5.7%
2008	0.935	0.199	0.013	..	..	0.067	..	1.21	5.5%
2009	0.953	0.208	0.014	..	..	0.070	..	1.25	5.6%
2010	0.941	0.219	0.016	..	..	0.074	..	1.25	5.9%
2011	0.934	0.227	0.016	..	..	0.075	..	1.25	6.0%
2012	0.923	0.234	0.016	..	..	0.077	..	1.25	6.1%
2013	0.922	0.243	0.017	..	..	0.078	..	1.26	6.2%
Annual growth, 2000-2013	0.34%	3.33%	6.10%	..	..	2.31%	..	1.01%	1.29%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all bus travel (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses).
'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 18: Total motorised passenger task by mode for Canberra, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	0.03	0.00	0.00	..	..	0.016	..	0.05	34.5%
1950	0.06	0.01	0.00	..	..	0.024	..	0.10	24.4%
1960	0.27	0.03	0.00	..	..	0.023	..	0.32	7.3%
1970	1.06	0.08	0.01	..	..	0.048	..	1.19	4.1%
1980	2.17	0.18	0.03	..	..	0.123	..	2.50	4.9%
1981	2.20	0.18	0.03	..	..	0.119	..	2.54	4.7%
1982	2.34	0.19	0.03	..	..	0.116	..	2.68	4.3%
1983	2.37	0.19	0.03	..	..	0.139	..	2.73	5.1%
1984	2.49	0.20	0.04	..	..	0.157	..	2.89	5.5%
1985	2.62	0.21	0.04	..	..	0.167	..	3.03	5.5%
1986	2.74	0.22	0.04	..	..	0.162	..	3.16	5.1%
1987	2.82	0.23	0.03	..	..	0.171	..	3.26	5.3%
1988	2.99	0.24	0.03	..	..	0.177	..	3.44	5.2%
1989	3.16	0.25	0.04	..	..	0.178	..	3.62	4.9%
1990	3.29	0.25	0.03	..	..	0.184	..	3.76	4.9%
1991	3.34	0.25	0.03	..	..	0.185	..	3.81	4.9%
1992	3.45	0.25	0.03	..	..	0.182	..	3.91	4.7%
1993	3.59	0.26	0.03	..	..	0.179	..	4.06	4.4%
1994	3.70	0.26	0.03	..	..	0.176	..	4.16	4.2%
1995	3.79	0.28	0.03	..	..	0.185	..	4.28	4.3%
1996	3.82	0.29	0.03	..	..	0.195	..	4.33	4.5%
1997	3.83	0.28	0.02	..	..	0.201	..	4.34	4.6%
1998	3.84	0.29	0.02	..	..	0.201	..	4.36	4.6%
1999	3.93	0.29	0.02	..	..	0.190	..	4.44	4.3%
2000	4.02	0.30	0.02	..	..	0.188	..	4.53	4.2%
2001	3.95	0.30	0.02	..	..	0.186	..	4.45	4.2%
2002	4.02	0.31	0.03	..	..	0.189	..	4.55	4.2%
2003	4.16	0.32	0.03	..	..	0.198	..	4.70	4.2%
2004	4.34	0.33	0.03	..	..	0.201	..	4.89	4.1%
2005	4.34	0.33	0.03	..	..	0.204	..	4.90	4.2%
2006	4.28	0.33	0.03	..	..	0.207	..	4.85	4.3%
2007	4.33	0.34	0.03	..	..	0.201	..	4.91	4.1%
2008	4.35	0.36	0.04	..	..	0.202	..	4.95	4.1%
2009	4.35	0.37	0.04	..	..	0.211	..	4.97	4.2%
2010	4.38	0.38	0.04	..	..	0.216	..	5.02	4.3%
2011	4.43	0.39	0.05	..	..	0.217	..	5.09	4.3%
2012	4.50	0.41	0.05	..	..	0.219	..	5.17	4.2%
2013	4.52	0.42	0.05	..	..	0.219	..	5.20	4.2%
Annual growth, 2000-2013	0.90%	2.65%	5.82%	..	..	1.16%	..	1.07%	0.09%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all bus travel (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses).
'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 19: Total motorised passenger task by mode for Australian capital cities, 1945–2013

(billions of passenger-kilometres)

Year ending 30 June	Private motor vehicles			Mass transit				Total motorised	Mass transit share
	Cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry		
1945	5.36	0.85	0.17	6.47	5.02	1.81	0.32	19.98	68.1%
1950	8.74	1.53	0.40	6.49	3.58	2.70	0.19	23.63	54.8%
1960	22.46	2.58	0.32	7.08	1.48	3.50	0.14	37.55	32.5%
1970	50.78	3.95	0.42	6.86	0.57	4.13	0.14	66.84	17.5%
1980	79.45	7.16	0.88	5.77	0.54	3.97	0.13	97.91	10.6%
1981	80.77	7.20	0.92	5.85	0.55	4.06	0.13	99.48	10.6%
1982	85.07	7.35	1.00	5.88	0.56	4.06	0.15	104.06	10.2%
1983	85.48	7.19	1.01	5.69	0.55	4.11	0.15	104.18	10.1%
1984	89.53	7.72	1.04	5.70	0.56	4.11	0.15	108.83	9.7%
1985	93.03	8.07	1.06	5.71	0.62	4.19	0.16	112.84	9.5%
1986	96.53	8.38	0.99	6.16	0.64	4.31	0.16	117.17	9.6%
1987	98.93	8.59	0.96	6.36	0.65	4.44	0.17	120.11	9.7%
1988	103.80	8.99	0.94	6.60	0.67	4.61	0.15	125.76	9.6%
1989	108.61	9.35	1.00	6.84	0.70	4.75	0.17	131.41	9.5%
1990	111.50	9.37	0.92	6.88	0.56	4.78	0.18	134.20	9.2%
1991	111.40	9.02	0.84	6.93	0.62	4.87	0.15	133.84	9.4%
1992	113.50	9.11	0.84	6.94	0.62	4.84	0.13	135.98	9.2%
1993	116.86	9.35	0.83	6.88	0.54	4.74	0.11	139.31	8.8%
1994	119.80	9.75	0.81	7.11	0.54	4.82	0.12	142.93	8.8%
1995	123.70	10.41	0.79	7.50	0.54	4.99	0.13	148.05	8.9%
1996	125.43	10.75	0.75	7.73	0.55	5.07	0.13	150.40	9.0%
1997	126.16	10.81	0.74	7.93	0.54	5.13	0.14	151.45	9.1%
1998	128.15	11.19	0.71	7.90	0.54	5.20	0.13	153.83	9.0%
1999	131.42	11.35	0.68	8.06	0.56	5.15	0.13	157.36	8.8%
2000	134.57	11.49	0.69	8.39	0.60	5.23	0.13	161.10	8.9%
2001	133.95	11.63	0.71	8.94	0.61	5.29	0.15	161.28	9.3%
2002	136.72	12.00	0.75	8.70	0.62	5.26	0.14	164.19	9.0%
2003	139.75	12.30	0.74	8.78	0.63	5.33	0.14	167.68	8.9%
2004	145.90	12.65	0.78	8.96	0.63	5.37	0.14	174.43	8.7%
2005	146.57	12.71	0.84	9.06	0.64	5.51	0.15	175.47	8.8%
2006	144.41	12.95	0.91	9.56	0.66	5.67	0.15	174.30	9.2%
2007	145.76	13.45	1.01	10.07	0.67	5.82	0.15	176.92	9.4%
2008	146.68	14.18	1.10	10.92	0.69	6.00	0.15	179.71	9.9%
2009	146.14	14.62	1.19	11.44	0.75	6.30	0.15	180.59	10.3%
2010	147.20	15.41	1.27	11.34	0.74	6.46	0.16	182.59	10.2%
2011	149.18	15.85	1.32	11.47	0.77	6.68	0.15	185.42	10.3%
2012	150.38	16.32	1.37	11.57	0.81	7.01	0.16	187.61	10.4%
2013	150.87	16.75	1.42	11.71	0.77	6.98	0.16	188.67	10.4%
Annual growth, 2000-2013	0.88%	2.94%	5.75%	2.60%	2.00%	2.25%	1.34%	1.22%	1.20%

Notes: Task by 'commercial vehicles' refers to metropolitan trips undertaken by light commercial vehicles and trucks that were not related to the carriage of freight. Values for 'mass transit' include all travel on heavy rail, light rail, ferries and buses (here comprising use of all motor vehicles with 10 or more seats - i.e. charter/hire and other private use of buses/minibuses, as well as UPT route buses). 'Mass transit share' refers to the proportion of metropolitan (GCCSA) motorised pkm performed by mass transit.

Sources: Cosgrove (2011), ABS (2013 and earlier), BITRE (2014a) and BITRE estimates.

Table 20: Total metropolitan passenger task per capita, Australian capital cities, 1945–2013

Year ending 30 June	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				(thousand pkm per person per annum)					
1945	4.83	5.15	3.55	4.20	3.54	3.23	2.14	2.94	4.60
1950	5.17	5.27	3.72	4.58	4.03	3.91	2.27	3.80	4.86
1960	6.19	5.94	4.85	5.64	5.72	4.87	3.52	5.66	5.83
1970	8.49	7.68	7.01	7.74	8.88	6.82	6.29	8.52	7.99
1980	10.28	10.11	9.62	9.93	11.59	9.60	8.62	11.22	10.24
1981	10.39	10.18	9.73	9.78	11.41	9.68	8.87	11.25	10.28
1982	10.64	10.57	10.12	10.03	11.53	9.91	8.96	11.58	10.58
1983	10.43	10.52	10.12	9.89	11.31	9.82	8.67	11.52	10.45
1984	10.76	10.83	10.49	10.23	11.70	10.18	8.84	11.86	10.79
1985	11.06	11.10	10.70	10.49	11.80	10.48	8.96	12.15	11.04
1986	11.26	11.46	11.10	10.70	11.82	10.81	9.26	12.29	11.30
1987	11.32	11.67	11.25	10.77	11.76	10.81	9.31	12.34	11.40
1988	11.62	12.08	11.70	11.02	11.97	11.08	9.74	12.70	11.74
1989	11.90	12.49	12.18	11.25	12.15	11.37	9.92	13.16	12.07
1990	12.06	12.55	12.15	11.30	12.19	11.62	9.99	13.40	12.16
1991	11.93	12.35	12.07	11.06	11.88	11.47	9.94	13.21	11.99
1992	11.95	12.45	12.28	11.07	11.84	11.57	10.00	13.31	12.05
1993	12.11	12.61	12.56	11.22	12.09	11.91	10.08	13.58	12.24
1994	12.30	12.81	12.71	11.22	12.60	12.13	10.15	13.80	12.45
1995	12.56	13.10	13.00	11.33	13.13	12.34	10.46	14.02	12.74
1996	12.52	13.19	13.09	11.26	13.18	12.42	10.66	14.00	12.76
1997	12.42	13.16	13.06	11.24	13.11	12.40	10.53	13.99	12.70
1998	12.48	13.25	13.16	11.33	13.08	12.24	10.56	14.01	12.77
1999	12.62	13.44	13.18	11.58	13.17	12.17	10.50	14.15	12.90
2000	12.77	13.59	13.35	11.84	13.16	12.18	10.40	14.29	13.05
2001	12.63	13.45	13.18	11.76	12.85	11.86	9.96	13.87	12.88
2002	12.63	13.55	13.29	11.87	12.96	12.08	10.02	14.02	12.95
2003	12.73	13.61	13.33	12.18	13.12	12.35	10.18	14.36	13.07
2004	13.19	13.86	13.84	12.26	13.53	12.79	10.43	14.88	13.44
2005	13.18	13.75	13.67	11.96	13.53	12.50	10.16	14.78	13.34
2006	12.89	13.51	13.42	11.69	13.10	12.26	9.97	14.48	13.06
2007	12.83	13.36	13.40	11.65	13.02	12.33	9.99	14.33	12.99
2008	12.77	13.38	13.30	11.28	12.80	12.25	10.02	14.21	12.90
2009	12.56	13.06	12.89	11.09	12.85	11.98	9.94	14.02	12.66
2010	12.49	13.07	12.77	11.10	12.56	11.76	9.77	13.90	12.59
2011	12.56	13.18	12.63	10.95	12.40	11.68	9.70	13.83	12.58
2012	12.50	13.11	12.48	10.75	12.24	11.65	9.45	13.80	12.48
2013	12.36	12.89	12.34	10.67	11.91	11.48	9.25	13.64	12.30

Note: Values denote total passenger-kilometres on all motorised transport within metropolitan areas, divided by estimated resident population (as at 30 June for each year) within those Greater Capital City Statistical Areas (summed across all ABS GCCSAs).

Values are not always strictly comparable over time or between cities, due to differing/changing boundary conditions or catchment areas for the various city transport networks.

Sources: Cosgrove (2011), ABS (2014), BITRE (2014) and BITRE estimates.

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Contact us

Department of Infrastructure and Regional Development
Bureau of Infrastructure, Transport and Regional Economics (BITRE)
GPO Box 501, Canberra ACT 2601, Australia

Phone: (international) +61 2 6274 7210
Fax: (international) +61 2 6274 6855
Email: bitre@infrastructure.gov.au
Website: www.bitre.gov.au