# **Context 2: Transport** and Infrastructure



Infrastructure is a key enabler of progress across regions. The right infrastructure can help regions capitalise on their comparative and competitive advantages, help people access work and other community services, and facilitate the movement of freight between locations. Infrastructure is also important in providing the basic services and utilities that Australians require to maintain and enhance their standard of living.

The infrastructure information in the Context section of this Yearbook can be used to provide background information to the progress that we see across regions, and how infrastructure capacity constraints may be hampering the development of regions. This information can inform decisions on strategic investment in transport infrastructure and the development of policies and programs across the regions of Australia.

#### Transport and Infrastructure

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# C 2.1 Moving people

# C 2.1.1 Transport mode for journey to work

Many commuters use more than one mode of transport to get to work. This indicator provides a summary of the primary mode used by commuters, prioritised in the order of public transport, private vehicle, active travel and working from home. Modes have been classified as:

- private vehicle (e.g. car as driver, car as passenger, truck or motorbike);
- public transport (e.g. bus, train, ferry, tram or taxi);
- · active travel (e.g. exclusively walking or cycling); and
- · working from home.

#### Table C 2.1.1.a Transport mode shares for journey to work by remoteness class

Remoteness Class	Public	Private	Active	Other	Work from home
	per cent				
			2006		
Major Cities	14.1	76.3	4.8	0.5	4.2
Inner Regional	2.2	83.7	6.2	0.7	7.1
Outer Regional	2.0	78.6	8.3	1.3	9.8
Remote	3.0	70.0	13.2	1.9	12.0
Very Remote	4.9	50.3	32.2	2.6	10.0
AUSTRALIA	10.7	77.5	5.8	0.7	5.4
			2011		
Major Cities	15.7	74.7	4.8	0.6	4.1
Inner Regional	2.6	84.9	5.3	0.7	6.4
Outer Regional	2.2	81.0	7.1	1.3	8.4
Remote	3.8	72.7	11.7	1.9	9.9
Very Remote	9.9	51.3	27.1	4.1	7.6
AUSTRALIA	12.1	76.7	5.4	0.7	5.0
			2016		
Major Cities	16.8	73.2	4.7	0.7	4.6
Inner Regional	2.7	85.6	4.6	0.7	6.5
Outer Regional	2.5	82.4	6.2	1.1	7.8
Remote	3.0	75.1	10.7	1.8	9.4
Very Remote	12.0	53.6	22.8	4.0	7.5
AUSTRALIA	13.1	75.9	5.0	0.8	5.3

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

Remoteness Area classification is based on the 2011 ASGS. The total for Australia is based on the 2016 ASGS.

Data based on place of usual residence.

Private vehicle includes car as driver, car as passenger, truck, motorbike/scooter.

Public transport includes train, bus, ferry, tram, taxi.

Active travel includes bicycle and walking.

Other includes all other forms of transport not listed above.

Major Urban Area	Public	Private	Active	Other	Work from home		
	per cent						
	2006						
Greater Sydney	20.8	68.9	5.4	0.5	4.4		
Greater Melbourne	13.7	76.9	4.7	0.4	4.2		
Greater Brisbane	13.3	77.0	4.5	0.5	4.7		
Greater Perth	10.0	81.2	3.6	1.0	4.1		
Greater Adelaide	9.7	81.5	4.5	0.6	3.7		
Gold Coast - Tweed Heads	3.6	85.3	4.4	0.6	6.1		
Newcastle - Maitland	3.6	88.0	4.4	0.4	3.6		
Canberra - Queanbeyan	7.5	82.0	6.8	0.4	3.3		
Sunshine Coast	2.5	84.0	5.0	0.6	7.9		
Wollongong	6.5	85.5	4.2	0.4	3.3		
Geelong	4.6	86.0	5.0	0.4	4.0		
Greater Hobart	6.6	80.5	8.4	0.6	3.9		
Townsville	2.6	85.9	7.2	1.5	2.7		
Cairns	3.1	84.7	7.0	1.2	4.0		
Greater Darwin	5.0	82.2	8.5	1.3	3.0		
Toowoomba	1.4	88.3	5.7	0.6	4.0		
Ballarat	2.5	87.6	5.9	0.4	3.6		
Bendigo	1.8	87.3	6.6	0.4	3.9		
Albury - Wodonga	1.3	88.2	6.7	0.4	3.3		
Launceston	2.4	86.8	7.0	0.5	3.3		
			2011				
Greater Sydney	22.7	67.0	5.4	0.5	4.4		
Greater Melbourne	15.9	74.7	4.8	0.5	4.1		
Greater Brisbane	14.7	75.5	4.7	0.6	4.6		
Greater Perth	12.4	78.5	3.9	1.3	3.9		
Greater Adelaide	10.1	81.4	4.1	0.7	3.7		
Gold Coast - Tweed Heads	4.5	84.6	4.2	0.7	6.0		
Newcastle - Maitland	3.5	88.8	3.9	0.4	3.3		
Canberra - Queanbeyan	7.5	82.0	7.0	0.5	3.0		
Sunshine Coast	2.5	84.1	4.6	0.9	7.9		
Wollongong	6.8	85.5	3.9	0.4	3.3		
Geelong	6.0	85.0	4.4	0.4	4.1		
Greater Hobart	6.7	81.2	7.4	0.6	4.1		
Townsville	2.6	88.2	5.5	1.1	2.6		
Cairns	3.2	84.6	6.6	1.4	4.2		
Greater Darwin	4.9	82.3	8.4	1.3	3.0		
Toowoomba	1.3	89.3	4.9	0.6	3.9		
Ballarat	4.0	86.9	4.9	0.5	3.7		
Bendigo	2.8	87.9	5.2	0.4	3.6		
Albury - Wodonga	1.3	89.3	5.7	0.6	3.2		
	2.8	86.9	6.2		3.5		

## Table C 2.1.1.b Transport mode shares for journey to work by major urban area

Major Urban Area	Public	Private	Active	Other	Work from
	per cent	per cent	per cent	per cent	home per cent
Greater Sydney	25.3	64.1	5.2	0.6	4.8
Greater Melbourne	17.6	72.4	4.9	0.5	4.6
Greater Brisbane	13.2	76.6	4.5	0.6	5.1
Greater Perth	11.8	79.0	3.5	1.4	4.3
Greater Adelaide	10.2	81.3	3.8	0.7	4.0
Gold Coast - Tweed Heads	4.6	84.2	3.8	0.8	6.6
Newcastle - Maitland	3.2	88.8	3.7	0.4	3.9
Canberra - Queanbeyan	7.7	80.9	7.5	0.6	3.3
Sunshine Coast	2.7	84.1	3.7	1.0	8.4
Wollongong	7.3	84.8	3.5	0.5	3.9
Geelong	6.3	84.6	3.9	0.5	4.7
Greater Hobart	6.4	80.8	7.6	0.6	4.5
Townsville	2.1	89.4	4.8	0.9	2.8
Cairns	3.1	85.7	5.8	1.3	4.1
Greater Darwin	8.9	80.7	6.7	1.1	2.7
Toowoomba	1.2	89.6	4.2	0.6	4.4
Ballarat	4.0	87.3	4.1	0.4	4.2
Bendigo	2.6	88.8	4.6	0.4	3.6
Albury - Wodonga	1.2	90.0	5.0	0.5	3.3
Launceston	2.5	87.3	6.1	0.6	3.5

#### Transport mode shares for journey to work by major urban area (continued)

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

The major urban areas of Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart and Darwin are based on the 2016 ASGS Greater Capital City Statistical Area (GCCSA) classification. All other major urban areas are based on the 2016 ASGS Significant Urban Area (SUA) classification. Data based on place of usual residence.

Private vehicle includes car as driver, car as passenger, truck, motorbike/scooter.

Public transport includes train, bus, ferry, tram, taxi.

Active travel includes bicycle and walking.

Other includes all other forms of transport not listed above.

	Public	Private	Active	Other	Work from
Sub-State Region	per cent	per cent	per cent	per cent	home per cent
	•	•	2006	•	
New South Wales	14.5	73.7	5.8	0.6	5.4
Greater Sydney	20.8	68.9	5.4	0.5	4.4
Central Coast	10.5	80.8	3.0	0.5	5.3
Sydney - Baulkham Hills and Hawkesbury	10.0	80.6	2.0	0.4	7.0
Sydney - Blacktown	17.7	77.3	2.3	0.4	2.3
Sydney - City and Inner South	32.7	40.9	21.5	0.9	4.0
Sydney - Eastern Suburbs	30.3	54.3	9.0	0.7	5.6
Sydney - Inner South West	24.0	69.3	3.6	0.5	2.7
Sydney - Inner West	31.4	58.2	5.6	0.5	4.3
Sydney - North Sydney and Hornsby	29.8	55.4	7.4	0.5	6.9
Sydney - Northern Beaches	17.0	70.6	5.0	0.5	6.9
Sydney - Outer South West	14.4	79.9	2.1	0.4	3.2
Sydney - Outer West and Blue Mountains	11.5	80.4	3.3	0.5	4.2
Sydney - Parramatta	21.8	70.7	4.3	0.5	2.7
Sydney - Ryde	23.5	67.0	4.1	0.5	4.9
Sydney - South West	13.4	80.3	2.9	0.6	2.9
Sydney - Sutherland	15.6	76.5	3.2	0.4	4.3
Rest of New South Wales	2.2	83.2	6.5	0.7	7.4
Capital Region	1.5	82.8	6.8	0.8	8.1
Central West	1.2	80.6	7.7	0.9	9.6
Coffs Harbour - Grafton	1.1	83.1	7.2	0.7	7.9
Far West and Orana	1.2	77.5	10.1	1.2	10.1
Hunter Valley exc Newcastle	1.8	87.2	4.6	0.5	5.8
Illawarra	6.4	85.4	4.3	0.4	3.6
Mid North Coast	1.0	83.6	6.5	0.7	8.1
Murray	0.9	79.8	8.5	0.8	10.0
New England and North West	1.1	78.3	8.1	1.0	11.6
Newcastle and Lake Macquarie	4.0	87.2	4.7	0.4	3.7
Richmond - Tweed	1.3	83.0	6.3	0.6	8.7
Riverina	1.0	80.8	8.3	1.2	8.6
Southern Highlands and Shoalhaven	1.9	83.6	5.6	0.8	8.2
Victoria	10.9	78.0	5.3	0.5	5.3
Greater Melbourne	13.7	76.9	4.7	0.4	4.2
Melbourne - Inner	26.4	52.9	15.7	0.5	4.5
Melbourne - Inner East	17.3	72.4	4.2	0.4	5.7
Melbourne - Inner South	16.7	73.4	4.1	0.4	5.3
Melbourne - North East	11.9	81.2	2.8	0.4	3.6
Melbourne - North West	10.4	84.0	2.1	0.5	2.9
Melbourne - Outer East	8.7	83.9	2.4	0.4	4.7
Melbourne - South East	9.8	83.6	2.4	0.5	3.8
Melbourne - West	12.6	81.9	2.4	0.4	2.6
Mornington Peninsula	5.0	86.0	3.2	0.6	5.3
Rest of Victoria	1.9	81.5	7.3	0.7	8.6

## Table C 2.1.1.c Transport mode shares for journey to work by sub-state region

Sub-State Region	Public	Private	Active	Other	Work from home
	per cent				
			2006		
Ballarat	2.3	85.2	5.6	0.6	6.4
Bendigo	2.2	83.5	6.6	0.5	7.2
Geelong	4.4	85.5	4.9	0.4	4.8
Hume	1.3	80.1	8.8	0.8	8.9
Latrobe - Gippsland	1.4	82.2	6.5	0.9	9.0
North West	1.0	76.6	9.7	1.1	11.6
Shepparton	0.6	79.3	8.9	0.7	10.4
Warrnambool and South West	0.8	76.4	9.0	0.9	13.0
Queensland	7.9	79.6	5.9	0.7	5.9
Greater Brisbane	13.3	77.0	4.5	0.5	4.7
Brisbane - East	9.7	81.8	2.9	0.5	5.0
Brisbane - North	16.9	75.2	3.6	0.5	3.8
Brisbane - South	17.2	74.2	3.7	0.4	4.4
Brisbane - West	17.9	70.9	5.1	0.5	5.7
Brisbane Inner City	21.6	60.1	12.9	0.5	4.9
Ipswich	8.2	83.6	3.1	0.5	4.6
Logan - Beaudesert	6.8	86.1	2.3	0.5	4.3
Moreton Bay - North	7.6	83.1	3.6	0.6	5.1
Moreton Bay - South	12.1	80.7	2.2	0.5	4.6
Rest of Queensland	2.6	82.2	7.1	1.0	7.0
Cairns	2.8	81.7	8.4	1.2	5.9
Darling Downs - Maranoa	1.0	72.7	9.4	1.2	15.7
Central Queensland	2.7	83.4	7.1	0.8	6.0
Gold Coast	3.7	85.0	4.4	0.6	6.3
Mackay - Isaac - Whitsunday	3.3	82.0	7.5	1.1	6.0
Queensland - Outback	2.2	61.5	24.0	2.3	10.0
Far North	1.8	48.7	38.8	2.6	8.2
Outback - North	3.6	71.9	15.8	2.0	6.7
Outback - South	0.6	61.9	18.1	2.5	16.9
Sunshine Coast	2.5	83.5	4.9	0.7	8.4
Toowoomba	1.4	88.0	5.5	0.6	4.5
Townsville	2.9	83.9	7.4	1.5	4.3
Wide Bay	1.5	82.6	6.9	0.8	8.1
South Australia	7.8	80.8	5.5	0.8	5.2
Greater Adelaide	9.7	81.5	4.5	0.6	3.7
Adelaide - Central and Hills	9.5	76.8	7.7	0.6	5.3
Adelaide - North	9.4	84.7	2.5	0.6	2.7
Adelaide - South	9.8	82.3	3.6	0.6	3.7
Adelaide - West	10.4	80.9	5.1	0.6	2.9
Rest of South Australia	1.2	78.5	8.8	1.2	10.4
Barossa - Yorke - Mid North	1.1	76.5	8.9	1.3	12.3
South Australia - Outback	2.1	77.9	11.6	1.1	7.3
Eyre Peninsula and South West	1.5	79.2	9.6	1.0	8.7
Outback - North and East	3.2	75.3	15.8	1.2	4.5

Sub-State Region	Public	Private	Active	Other	Work from home
	per cent				
			2006		
South Australia - South East	0.8	79.8	7.5	1.1	10.7
Western Australia	8.6	80.1	5.1	1.2	5.1
Greater Perth	10.0	81.2	3.6	1.0	4.1
Mandurah	3.2	87.1	3.3	1.3	5.0
Perth - Inner	14.1	68.5	10.6	0.7	6.0
Perth - North East	9.4	82.7	3.0	0.9	4.0
Perth - North West	10.6	82.4	2.3	0.9	3.8
Perth - South East	10.6	81.6	3.2	0.9	3.8
Perth - South West	8.1	83.2	3.4	1.4	3.9
Rest of Western Australia	3.3	76.5	10.0	1.5	8.7
Bunbury	1.8	85.0	5.1	0.9	7.3
Western Australia - Wheat Belt	1.5	71.6	9.8	2.0	15.1
Western Australia - Outback (North)	8.0	68.2	18.5	1.8	3.5
Kimberley	3.3	59.0	29.2	2.8	5.7
East Pilbara	6.8	74.8	15.2	1.3	1.9
West Pilbara	14.6	74.2	8.2	1.0	2.0
Western Australia - Outback (South)	4.1	76.8	10.8	1.6	6.6
Esperance	3.1	74.7	9.2	1.4	11.7
Gascoyne	3.2	63.5	22.4	2.2	8.7
Goldfields	6.3	79.1	10.9	1.2	2.4
Mid West	2.7	78.3	8.9	1.9	8.2
Tasmania	3.8	82.5	7.5	0.7	5.5
Greater Hobart	6.6	80.5	8.4	0.6	3.9
Rest of Tasmania	1.5	84.1	6.8	0.9	6.8
Launceston and North East	1.8	84.5	6.9	0.7	6.0
South East	1.7	79.0	6.7	1.2	11.4
West and North West	1.1	85.0	6.6	0.9	6.3
Northern Territory	5.1	73.2	16.8	1.4	3.5
Greater Darwin	5.0	82.2	8.5	1.3	3.0
Rest of Northern Territory	5.2	59.0	30.3	1.3	4.3
Northern Territory - Outback	5.2	59.0	30.3	1.3	4.3
Alice Springs	4.5	69.8	20.8	1.0	3.8
Barkly	3.1	47.8	40.5	3.1	5.4
Daly - Tiwi - West Arnhem	5.7	37.3	49.3	1.3	6.4
East Arnhem	12.6	49.0	34.9	1.0	2.5
Katherine	1.8	57.7	33.9	1.7	4.8
Australian Capital Territory	8.0	80.9	7.2	0.5	3.4
Australian Capital Cities	14.8	75.5	4.9	0.6	4.2
Australian Rest of States	2.3	81.6	7.5	0.9	7.7

Sub-State Region	Public	Private	Active	Other	Work from home
	per cent				
			2011		
New South Wales	15.9	73.0	5.4	0.6	5.1
Greater Sydney	22.7	67.0	5.4	0.5	4.4
Central Coast	10.4	81.3	2.5	0.5	5.2
Sydney - Baulkham Hills and Hawkesbury	12.9	78.0	1.8	0.5	6.8
Sydney - Blacktown	19.8	75.7	1.8	0.4	2.3
Sydney - City and Inner South	34.8	36.9	23.6	0.7	4.0
Sydney - Eastern Suburbs	31.3	52.7	9.5	0.6	5.8
Sydney - Inner South West	26.0	67.6	3.1	0.5	2.7
Sydney - Inner West	33.5	55.8	5.6	0.5	4.6
Sydney - North Sydney and Hornsby	32.2	53.0	7.3	0.6	6.9
Sydney - Northern Beaches	18.6	68.7	4.9	0.6	7.3
Sydney - Outer South West	14.3	80.6	1.7	0.4	3.0
Sydney - Outer West and Blue Mountains	11.9	80.7	2.8	0.4	4.2
Sydney - Parramatta	25.0	68.1	3.8	0.5	2.6
Sydney - Ryde	27.2	63.3	4.4	0.4	4.7
Sydney - South West	14.2	80.1	2.5	0.5	2.7
Sydney - Sutherland	16.8	75.5	2.8	0.4	4.5
Rest of New South Wales	2.3	84.9	5.5	0.7	6.6
Capital Region	1.5	84.7	5.6	0.8	7.3
Central West	1.5	83.3	6.2	0.9	8.2
Coffs Harbour - Grafton	1.1	84.6	6.4	0.7	7.2
Far West and Orana	1.2	80.5	8.4	1.0	8.9
Hunter Valley exc Newcastle	1.8	88.9	3.8	0.5	4.9
Illawarra	6.7	85.5	4.0	0.4	3.4
Mid North Coast	1.1	85.3	5.6	0.7	7.4
Murray	1.0	83.0	6.7	0.9	8.4
New England and North West	1.0	81.5	6.6	1.0	9.9
Newcastle and Lake Macquarie	3.9	87.8	4.3	0.4	3.6
Richmond - Tweed	1.5	83.5	5.9	0.8	8.3
Riverina	0.9	83.6	7.0	1.2	7.3
Southern Highlands and Shoalhaven	2.0	84.9	4.9	0.7	7.4
Victoria	12.9	76.6	5.1	0.6	4.9
Greater Melbourne	15.9	74.7	4.8	0.5	4.1
Melbourne - Inner	29.9	47.8	17.2	0.6	4.6
Melbourne - Inner East	20.0	69.3	4.5	0.5	5.7
Melbourne - Inner South	19.1	70.9	4.1	0.4	5.5
Melbourne - North East	14.0	79.2	2.7	0.5	3.6
Melbourne - North West	12.5	82.1	1.9	0.5	3.0
Melbourne - Outer East	9.9	83.0	2.0	0.4	4.6
Melbourne - South East	11.6	82.5	2.0	0.5	3.5
Melbourne - West	15.0	79.4	2.3	0.5	2.7
Mornington Peninsula	5.4	86.1	2.9	0.6	5.1
Rest of Victoria	2.7	83.0	6.1	0.8	7.3
Ballarat	3.6	85.0	4.8	0.6	5.9

Sub-State Region	Public	Private	Active	Other	Work from home
	per cent				
			2011		
Bendigo	3.8	83.8	5.5	0.5	6.5
Geelong	5.7	84.8	4.4	0.5	4.6
Hume	1.7	81.7	7.6	0.8	8.1
Latrobe - Gippsland	2.0	83.7	5.6	1.0	7.7
North West	1.1	80.2	8.2	1.2	9.3
Shepparton	0.9	83.7	6.7	0.6	8.0
Warrnambool and South West	1.0	79.5	8.0	1.0	10.6
Queensland	8.9	79.4	5.4	0.8	5.5
Greater Brisbane	14.7	75.5	4.7	0.6	4.6
Brisbane - East	10.7	81.1	2.5	0.6	5.1
Brisbane - North	19.0	73.0	3.7	0.5	3.8
Brisbane - South	19.6	71.6	4.1	0.5	4.2
Brisbane - West	19.8	68.0	5.8	0.5	5.9
Brisbane Inner City	23.6	56.6	14.2	0.6	5.0
lpswich	8.9	83.7	2.6	0.6	4.1
Logan - Beaudesert	7.9	85.5	2.0	0.6	4.0
Moreton Bay - North	8.3	82.9	3.3	0.7	4.8
Moreton Bay - South	12.8	79.9	2.0	0.5	4.7
Rest of Queensland	3.1	83.3	6.1	1.0	6.5
Cairns	2.8	82.7	7.3	1.4	5.8
Darling Downs - Maranoa	0.9	76.6	8.3	1.2	13.0
Central Queensland	3.6	84.6	5.7	0.7	5.4
Gold Coast	4.6	84.3	4.2	0.7	6.2
Mackay - Isaac - Whitsunday	4.0	83.3	6.5	1.1	5.1
Queensland - Outback	2.6	65.2	20.5	2.3	9.3
Far North	3.3	54.1	31.9	2.1	8.5
Outback - North	3.5	74.2	14.3	2.4	5.6
Outback - South	0.6	64.0	17.2	2.4	15.8
Sunshine Coast	2.7	83.6	4.6	0.9	8.3
Toowoomba	1.3	89.1	4.8	0.6	4.3
Townsville	2.9	86.2	6.0	1.2	3.8
Wide Bay	1.7	84.3	5.8	0.9	7.3
South Australia	8.2	81.4	4.8	0.8	4.8
Greater Adelaide	10.1	81.4	4.1	0.7	3.7
Adelaide - Central and Hills	10.3	76.0	7.6	0.7	5.4
Adelaide - North	9.4	85.1	2.2	0.7	2.6
Adelaide - South	9.6	82.6	3.2	0.8	3.8
Adelaide - West	11.6	80.4	4.4	0.7	3.0
Rest of South Australia	1.5	81.2	7.3	1.2	8.8
Barossa - Yorke - Mid North	1.1	80.1	7.2	1.3	10.2
South Australia - Outback	3.3	79.5	9.6	1.3	6.3
Eyre Peninsula and South West	2.4	81.3	7.6	1.4	7.6
Outback - North and East	5.1	75.8	13.5	1.1	3.7
South Australia - South East	0.9	82.6	6.2	1.1	9.1

	Public	Private	Active	Other	Work from
Sub-State Region					home
	per cent				
			2011		
Western Australia	11.0	77.9	5.0	1.5	4.6
Greater Perth	12.4	78.5	3.9	1.3	3.9
Mandurah	8.4	81.9	3.2	2.0	4.5
Perth - Inner	17.7	63.7	12.2	1.0	5.4
Perth - North East	10.5	81.5	3.0	1.2	3.8
Perth - North West	12.1	80.4	2.5	1.3	3.8
Perth - South East	12.5	79.5	3.2	1.2	3.5
Perth - South West	12.1	79.2	3.4	1.4	3.8
Rest of Western Australia	5.9	76.2	8.7	2.3	6.9
Bunbury	3.7	83.9	4.8	1.2	6.4
Western Australia - Wheat Belt	2.4	74.2	8.6	2.3	12.6
Western Australia - Outback (North)	14.6	65.1	14.2	3.7	2.5
Kimberley	3.9	65.6	23.4	2.5	4.5
East Pilbara	16.0	67.5	10.4	4.7	1.5
West Pilbara	22.1	62.8	9.8	3.7	1.6
Western Australia - Outback (South)	5.1	77.8	9.3	2.4	5.5
Esperance	3.2	77.6	7.2	1.7	10.2
Gascoyne	3.9	65.8	18.6	2.4	9.3
Goldfields	7.2	79.7	9.2	2.0	2.0
Mid West	4.2	78.2	8.3	2.9	6.4
Tasmania	4.0	83.5	6.5	0.8	5.2
Greater Hobart	6.7	81.2	7.4	0.6	4.1
Rest of Tasmania	1.9	85.4	5.8	0.8	6.1
Launceston and North East	2.1	85.4	6.1	0.7	5.7
South East	2.2	81.6	5.3	1.1	9.8
West and North West	1.4	86.6	5.6	0.9	5.4
Northern Territory	4.9	75.1	15.4	1.5	3.1
Greater Darwin	4.9	82.3	8.4	1.3	3.0
Rest of Northern Territory	4.8	62.6	27.8	1.5	3.4
Northern Territory - Outback	4.8	62.6	27.8	1.5	3.4
Alice Springs	4.4	72.7	18.7	1.3	2.9
Barkly	1.1	55.8	37.0	1.9	4.1
Daly - Tiwi - West Arnhem	6.7	43.2	44.3	1.7	4.2
East Arnhem	9.7	51.7	35.2	1.6	1.8
Katherine	1.8	62.8	29.2	1.5	4.8
Australian Capital Territory	8.0	81.0	7.4	0.5	3.1
Australian Capital Cities	16.4	73.8	4.9	0.6	4.2
Australian Rest of States	2.9	83.0	6.4	1.0	6.8

Sub-State Region	Public	Private	Active	Other	Work from home
	per cent				
			2016		
New South Wales	18.0	71.0	5.1	0.6	5.3
Greater Sydney	25.3	64.1	5.2	0.6	4.8
Central Coast	10.1	81.4	2.2	0.5	5.8
Sydney - Baulkham Hills and Hawkesbury	16.1	74.8	1.6	0.5	7.0
Sydney - Blacktown	21.8	73.5	1.4	0.5	2.8
Sydney - City and Inner South	39.7	32.8	22.4	0.9	4.2
Sydney - Eastern Suburbs	33.3	49.9	9.7	0.7	6.4
Sydney - Inner South West	29.4	63.8	3.1	0.6	3.2
Sydney - Inner West	37.9	51.1	5.6	0.6	4.8
Sydney - North Sydney and Hornsby	36.3	49.1	6.9	0.6	7.2
Sydney - Northern Beaches	20.2	66.5	4.8	0.6	7.8
Sydney - Outer South West	14.7	80.0	1.4	0.4	3.5
Sydney - Outer West and Blue Mountains	12.2	80.6	2.3	0.5	4.4
Sydney - Parramatta	27.9	64.9	3.4	0.6	3.1
Sydney - Ryde	31.5	58.6	4.3	0.5	5.1
Sydney - South West	15.3	79.0	2.2	0.5	3.1
Sydney - Sutherland	19.0	72.8	2.8	0.4	5.0
Rest of New South Wales	2.3	85.7	4.7	0.7	6.6
Capital Region	1.5	85.6	5.0	0.9	7.1
Central West	1.1	85.0	5.4	0.7	7.9
Coffs Harbour - Grafton	0.9	86.4	5.1	0.8	6.9
Far West and Orana	1.0	83.0	6.9	1.0	8.1
Hunter Valley exc Newcastle	1.6	89.6	3.1	0.6	5.1
Illawarra	7.1	84.8	3.5	0.5	4.1
Mid North Coast	1.0	86.6	4.7	0.7	7.0
Murray	0.9	84.8	5.9	0.9	7.5
New England and North West	1.1	83.1	5.7	0.8	9.4
Newcastle and Lake Macquarie	3.6	87.6	4.1	0.5	4.2
Richmond - Tweed	1.4	83.9	5.0	0.8	8.8
Riverina	0.8	85.8	5.8	1.0	6.7
Southern Highlands and Shoalhaven	2.1	85.0	4.2	0.7	7.9
Victoria	14.3	75.0	5.0	0.6	5.2
Greater Melbourne	17.6	72.4	4.9	0.5	4.6
Melbourne - Inner	32.5	43.8	18.1	0.7	5.1
Melbourne - Inner East	21.7	66.9	4.5	0.5	6.4
Melbourne - Inner South	20.4	68.8	4.0	0.6	6.3
Melbourne - North East	15.9	77.0	2.5	0.5	4.1
Melbourne - North West	14.2	80.0	1.7	0.6	3.6
Melbourne - Outer East	11.0	81.9	1.8	0.4	4.9
Melbourne - South East	12.1	81.7	1.8	0.6	3.9
Melbourne - West	17.4	76.5	2.2	0.6	3.3
Mornington Peninsula	4.9	86.4	2.6	0.6	5.7
Rest of Victoria	2.8	84.2	5.3	0.7	7.1
Ballarat	3.7	85.5	4.2	0.5	6.1

Sub-State Region	Public	Private	Active	Other	Work from home
	per cent				
			2016		
Bendigo	3.7	84.6	4.8	0.5	6.4
Geelong	5.9	84.5	3.9	0.5	5.2
Hume	1.7	83.3	6.7	0.8	7.6
Latrobe - Gippsland	1.9	85.2	4.7	0.8	7.3
North West	0.8	82.6	7.1	1.0	8.5
Shepparton	0.8	85.4	5.8	0.7	7.3
Warrnambool and South West	0.9	81.3	7.0	0.9	9.9
Queensland	8.2	80.3	4.8	0.8	5.9
Greater Brisbane	13.2	76.6	4.5	0.6	5.1
Brisbane - East	9.5	81.9	2.3	0.7	5.6
Brisbane - North	17.5	74.2	3.3	0.6	4.4
Brisbane - South	17.8	72.8	4.1	0.6	4.8
Brisbane - West	17.4	69.3	5.9	0.6	6.8
Brisbane Inner City	21.7	57.2	14.5	0.8	5.8
Ipswich	8.1	84.8	2.1	0.6	4.3
Logan - Beaudesert	6.5	86.9	1.6	0.6	4.4
Moreton Bay - North	7.0	84.4	2.7	0.7	5.2
Moreton Bay - South	10.7	81.5	1.8	0.6	5.3
Rest of Queensland	3.1	84.0	5.2	1.0	6.7
Cairns	3.0	83.9	6.3	1.3	5.5
Darling Downs - Maranoa	0.8	78.2	7.1	1.2	12.7
Central Queensland	4.6	84.1	4.7	0.8	5.7
Gold Coast	4.8	83.9	3.8	0.8	6.7
Mackay - Isaac - Whitsunday	3.7	83.8	6.0	1.2	5.4
Queensland - Outback	1.8	69.7	17.4	2.1	8.9
Far North	2.4	63.0	24.2	2.8	7.7
Outback - North	2.3	77.7	13.0	1.5	5.4
Outback - South	0.5	65.3	15.9	2.3	16.1
Sunshine Coast	2.8	83.8	3.8	1.0	8.7
Toowoomba	1.1	89.6	4.1	0.6	4.6
Townsville	2.2	87.6	5.3	1.0	3.9
Wide Bay	1.6	85.5	4.9	0.8	7.2
South Australia	8.4	81.6	4.3	0.8	5.0
Greater Adelaide	10.2	81.3	3.8	0.7	4.0
Adelaide - Central and Hills	10.4	75.5	7.4	0.7	6.0
Adelaide - North	9.4	85.3	1.8	0.7	2.8
Adelaide - South	9.9	82.4	2.8	0.7	4.3
Adelaide - West	12.0	80.2	3.8	0.7	3.3
Rest of South Australia	1.4	83.0	6.1	1.1	8.4
Barossa - Yorke - Mid North	1.1	81.9	6.1	1.2	9.7
South Australia - Outback	2.8	81.3	8.3	1.2	6.3
Eyre Peninsula and South West	2.6	82.8	6.6	0.9	7.1
Outback - North and East	3.4	77.9	12.2	1.9	4.6
South Australia - South East	0.9	84.3	5.2	1.0	8.5

Sub State Decion	Public	Private	Active	Other	Work from home
Sub-State Region	per cent				
	-	-	2016		-
Western Australia	10.6	78.8	4.2	1.5	4.8
Greater Perth	11.8	79.0	3.5	1.4	4.3
Mandurah	8.3	82.1	2.5	2.3	4.8
Perth - Inner	17.6	62.9	12.2	1.1	6.3
Perth - North East	10.3	81.6	2.7	1.3	4.0
Perth - North West	11.5	80.8	2.1	1.3	4.3
Perth - South East	11.5	80.8	2.7	1.3	3.7
Perth - South West	11.8	79.4	3.0	1.6	4.3
Rest of Western Australia	5.8	78.2	7.3	2.1	6.7
Bunbury	2.8	84.8	4.4	1.4	6.5
Western Australia - Wheat Belt	2.0	76.9	7.7	1.9	11.5
Western Australia - Outback (North)	17.2	66.2	10.7	3.6	2.2
Kimberley	2.1	74.2	18.0	1.8	3.8
East Pilbara	14.9	69.7	8.4	5.8	1.3
West Pilbara	29.7	58.0	7.1	3.5	1.6
Western Australia - Outback (South)	4.6	80.4	7.8	1.8	5.4
Esperance	2.5	79.4	6.7	1.3	10.0
Gascoyne	2.7	68.5	18.9	2.2	7.7
Goldfields	7.2	82.5	6.8	1.5	1.9
Mid West	3.4	81.1	7.0	2.2	6.4
Tasmania	3.8	83.7	6.4	0.7	5.4
Greater Hobart	6.4	80.8	7.6	0.6	4.5
Rest of Tasmania	1.6	86.1	5.3	0.8	6.1
Launceston and North East	1.8	85.9	5.9	0.8	5.6
South East	1.9	82.2	4.9	1.0	10.0
West and North West	1.2	87.7	4.7	0.9	5.4
Northern Territory	7.4	76.5	12.0	1.3	2.8
Greater Darwin	8.9	80.7	6.7	1.1	2.7
Rest of Northern Territory	3.7	67.4	24.1	1.6	3.2
Northern Territory - Outback	3.7	67.4	24.1	1.6	3.2
Alice Springs	3.8	73.9	18.6	1.1	2.6
Barkly	1.1	56.3	35.0	2.3	5.3
Daly - Tiwi - West Arnhem	6.4	50.3	36.1	2.4	4.8
East Arnhem	5.4	60.7	31.8	1.0	1.2
Katherine	1.6	69.0	22.9	2.3	4.2
Australian Capital Territory	8.2	79.9	7.9	0.6	3.4
Australian Capital Cities	17.6	72.3	4.8	0.7	4.6
Australian Rest of States	2.8	84.1	5.4	0.9	6.7

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

Sub-state regions are SA4 (2016 ASGS), italicised regions are SA3 (2016 ASGS).

Data based on place of usual residence.

Private vehicle includes car as driver, car as passenger, truck, motorbike/scooter.

Public transport includes train, bus, ferry, tram, taxi.

Active travel includes bicycle and walking.

Other includes all other forms of transport not listed above.

# C 2.1.2 Passengers through airports

This indicator provides a measure of how many people are travelling through the top 50 airports, including both domestic and international travellers. Data reflects passengers travelling on regular public transport (RPT) services including both arrivals and departures. In this context, regular public transport refers to airline services open to the general public with fixed schedules over specific routes.

			2006	2011	2016	2006-2016
Airport	Remoteness Class	Sub State Region Class	passengers ('000)	passengers ('000)	passengers ('000)	change passengers ('000)
Sydney	Major Cities	Sydney - City and Inner South	29,985	35,674	42,003	12,018
Melbourne	Major Cities	Melbourne - North West	21,568	27,668	34,375	12,807
Brisbane	Major Cities	Brisbane - North	16,706	20,334	22,506	5,800
Perth	Major Cities	Perth - South East	7,465	11,366	12,504	5,039
Adelaide	Major Cities	Adelaide - West	5,993	7,021	7,920	1,927
Gold Coast	Major Cities	Gold Coast	3,617	5,297	6,411	2,794
Cairns	Outer Regional	Cairns	3,759	3,865	4,851	1,092
Canberra	Major Cities	Australian Capital Territory	2,613	3,208	2,893	280
Hobart	Inner Regional	Hobart	1,618	1,845	2,378	760
Darwin	Outer Regional	Darwin	1,313	1,887	2,075	762
Townsville	Outer Regional	Townsville	1,246	1,617	1,529	283
Launceston	Inner Regional	Launceston and North East	963	1,126	1,331	368
Williamtown	Major Cities	Hunter Valley exc Newcastle	893	1,191	1,179	286
Sunshine Coast	Major Cities	Sunshine Coast	847	857	1,010	163
Mackay	Inner Regional	Mackay - Isaac - Whitsunday	709	1,083	768	59
Alice Springs	Remote	Northern Territory - Outback	619	599	612	-7
Rockhampton	Inner Regional	Central Queensland	613	701	584	-29
Hamilton Island	Outer Regional	Mackay - Isaac - Whitsunday	461	452	550	89
Karratha	Remote	Western Australia - Outback (North)	291	740	495	204
Ballina	Inner Regional	Richmond - Tweed	310	310	481	171
Coffs Harbour	Inner Regional	Coffs Harbour - Grafton	324	336	395	71
Broome	Remote	Western Australia - Outback (North)	325	405	371	46
Port Hedland	Remote	Western Australia - Outback (North)	137	400	364	227
Ayers Rock	Very Remote	Northern Territory - Outback	384	298	359	-25
Proserpine	Outer Regional	Mackay - Isaac - Whitsunday	237	205	343	106
Gladstone	Inner Regional	Central Queensland	173	298	331	158
Newman	Very Remote	Western Australia - Outback (North)	110	252	309	199
Albury	Inner Regional	Murray	204	280	251	47
Kalgoorlie	Outer Regional	Western Australia - Outback (South)	198	266	240	42

			2006	2011	2016	2006-2016
Airport	Remoteness Class	Sub State Region Class	passengers ('000)	passengers ('000)	passengers ('000)	change passengers ('000)
Wagga Wagga	Inner Regional	Riverina	186	207	214	28
Emerald	Outer Regional	Central Queensland	89	193	199	110
Dubbo	Inner Regional	Far West and Orana	163	170	194	31
Mount Isa	Remote	Queensland - Outback	144	226	182	38
Port Lincoln	Remote	South Australia - Outback	144	197	179	35
Tamworth	Inner Regional	New England and North West	95	154	176	81
Bundaberg	Inner Regional	Wide Bay	102	128	173	71
Hervey Bay	Inner Regional	Wide Bay	171	149	170	-1
Paraburdoo	Very Remote	Western Australia - Outback (North)	96	247	164	68
Devonport	Outer Regional	West and North West	90	137	147	57
Armidale	Inner Regional	New England and North West	95	104	129	34
Moranbah	Outer Regional	Mackay - Isaac - Whitsunday	10	79	117	107
Geraldton	Outer Regional	Western Australia - Outback (South)	89	108	117	28
Wellcamp	Inner Regional	Toowoomba	-	-	112	112
Thursday Island	Very Remote	Queensland - Outback	53	97	97	44
Learmonth	Very Remote	Western Australia - Outback (South)	33	69	85	52
Roma	Outer Regional	Darling Downs - Maranoa	19	77	79	60
Mount Gambier	Outer Regional	South Australia - South East	105	89	76	-29
Kununurra	Remote	Western Australia - Outback (North)	59	89	73	14

#### Number of passengers through top 50 airports (continued)

Source: BITRE 2017, Airport Traffic Data, <br/>
bitre.gov.au/publications/ongoing/airport\_traffic\_data.aspx>

Regular public transport (RPT) operations only.

Data is compiled for International and Domestic (including Regional) airline RPT services, and does not include charter or other non-scheduled activity. Data is presented on Australian airports with more than 7,000 revenue passenger movements during 2016, except for Avalon Airport which is excluded for commercial-in-confidence reasons.

Each of the top 50 airports has been classified into remoteness class and sub state class. These geographies are comparable to 2011 ASGS Remoteness Areas and 2016 ASGS SA4 classifications.

# C 2.1.3 Dwellings with no motor vehicle

This indicator measures the proportion of dwellings with no passenger vehicle (other than a motorbike or scooter). It can provide some indication of the extent to which households in a region may encounter access difficulties through a lack of private transport. This also provides an indication of the extent to which households in a region may rely on public transport, bicycle and footpath infrastructure for travel.

	2006	2011	2016	2006 - 2016		
Remoteness Class	per cent	per cent	per cent	change percentage points	Trend	
Major Cities	10.9	9.8	8.8	-2.1		
Inner Regional	7.7	6.7	5.5	-2.2		
Outer Regional	7.8	6.9	5.7	-2.1		
Remote	8.3	7.9	7.0	-1.3		
Very Remote	19.8	18.3	18.4	-1.4	~	
AUSTRALIA	10.0	9.0	7.9	-2.1		

Table C 2.1.3.a Dwellings with no motor vehicle by remoteness class

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

Remoteness Area classification is based on the 2011 ASGS. The total for Australia is based on the 2016 ASGS. Data based on place of enumeration.

Motor vehicles includes vans and company vehicles kept at home but excludes motorcycles and scooters. Calculation excludes Not Stated category from the denominator.

Table C 2.1.3.b	Dwellings with	no motor	vehicle h	w maior urhan	area
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	2006	2011	2016	2006 - 2016	
Major Urban Area	per cent	per cent	per cent	change percentage points	Trend
Greater Sydney	13.9	12.7	11.6	-2.3	
Greater Melbourne	10.1	9.6	9.2	-0.9	
Greater Brisbane	9.1	8.1	6.8	-2.3	
Greater Perth	7.3	6.5	5.1	-2.2	
Greater Adelaide	10.7	9.7	8.4	-2.3	
Gold Coast - Tweed Heads	8.5	7.0	5.6	-2.9	
Newcastle - Maitland	11.5	9.1	7.3	-4.2	
Canberra - Queanbeyan	7.3	6.5	5.7	-1.6	
Sunshine Coast	7.7	6.3	4.7	-3.0	
Wollongong	12.3	10.6	8.4	-3.9	
Geelong	8.5	7.4	6.3	-2.2	
Greater Hobart	10.4	9.4	8.3	-2.1	
Townsville	7.7	6.6	5.9	-1.8	
Cairns	11.1	9.6	7.7	-3.4	
Greater Darwin	8.4	7.3	5.9	-2.5	
Toowoomba	8.6	7.9	6.5	-2.1	
Ballarat	9.6	8.3	7.1	-2.5	
Bendigo	9.2	7.9	6.4	-2.8	
Albury - Wodonga	9.5	8.7	7.2	-2.3	
Launceston	10.6	9.9	8.9	-1.7	

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

The major urban areas of Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart and Darwin are based on the 2016 ASGS Greater Capital City Statistical Area (GCCSA) classification. All other major urban areas are based on the 2016 ASGS Significant Urban Area (SUA) classification. Data based on place of enumeration.

Motor vehicles includes vans and company vehicles kept at home but excludes motorcycles and scooters.

	2006	2011	2016	2006 - 2016	
Sub-State Region	per cent	per cent	per cent	change percentage points	Trend
New South Wales	12.2	10.9	9.7	-2.5	
Greater Sydney	13.9	12.7	11.6	-2.3	
Central Coast	11.1	9.4	7.3	-3.8	
Sydney - Baulkham Hills and Hawkesbury	3.0	2.7	2.5	-0.5	
Sydney - Blacktown	11.6	9.5	7.3	-4.3	
Sydney - City and Inner South	33.9	34.0	34.3	0.4	
Sydney - Eastern Suburbs	20.8	19.4	18.3	-2.5	
Sydney - Inner South West	15.6	13.5	12.4	-3.2	
Sydney - Inner West	17.3	15.5	14.8	-2.5	
Sydney - North Sydney and Hornsby	11.8	11.0	10.6	-1.2	
Sydney - Northern Beaches	9.3	8.1	6.9	-2.4	
Sydney - Outer South West	9.1	7.3	5.8	-3.3	
Sydney - Outer West and Blue Mountains	9.3	7.9	6.4	-2.9	
Sydney - Parramatta	15.8	13.5	11.9	-3.9	
Sydney - Ryde	11.9	11.4	10.3	-1.6	
Sydney - South West	12.2	10.8	8.9	-3.3	
Sydney - Sutherland	8.0	6.9	5.9	-2.1	
Rest of New South Wales	9.6	8.1	6.5	-3.1	
Capital Region	7.3	6.2	5.1	-2.2	
Central West	9.6	8.0	6.5	-3.1	
Coffs Harbour - Grafton	9.1	7.8	6.1	-3.0	
Far West and Orana	11.8	10.1	8.4	-3.4	
Hunter Valley exc Newcastle	7.9	6.2	4.9	-3.0	
Illawarra	12.0	10.4	8.3	-3.7	
Mid North Coast	9.5	8.2	6.4	-3.1	
Murray	8.4	8.0	6.6	-1.8	
New England and North West	9.5	8.1	6.6	-2.9	
Newcastle and Lake Macquarie	11.8	9.4	7.6	-4.2	
Richmond - Tweed	9.2	7.9	6.0	-3.2	
Riverina	8.7	7.5	5.9	-2.8	
Southern Highlands and Shoalhaven	7.4	6.3	4.7	-2.7	
Victoria	9.4	8.9	8.3	-1.1	
Greater Melbourne	10.1	9.6	9.2	-0.9	
Melbourne - Inner	22.9	23.4	25.4	2.5	
Melbourne - Inner East	8.5	8.2	7.8	-0.7	
Melbourne - Inner South	10.1	9.0	7.8	-0.1	
Melbourne - North East	8.2	9.0 7.4	6.4	-2.3	
Melbourne - North West	7.7	7.4	6.0	-1.7	
Melbourne - Notri West Melbourne - Outer East	5.3	4.8	4.1	-1.7	
Melbourne - Outer East Melbourne - South East	5.3 7.3	4.8 6.6	4.1 5.6		
				-1.7	
Melbourne - West	9.3	8.0 6.2	6.6 5.2	-2.7	
Mornington Peninsula	7.3 7.5		5.2	-2.1	
Rest of Victoria	<b>7.5</b>	<b>6.8</b>	<b>5.7</b>	- <b>1.8</b>	
Ballarat	7.9	6.9	6.0	-1.9	

Table C 2.1.3.c Dwellings with no motor vehicle by sub-state region

## Dwellings with no motor vehicle by sub-state region (continued)

	2006	2011	2016	2006 - 20	16
Sub-State Region	per cent	per cent	per cent	chan percenta poir	ge Trend
Geelong	8.0	6.9	5.9		2.1
Hume	6.9	6.2	5.1		1.8
Latrobe - Gippsland	7.4	6.7	5.6		1.8
North West	8.2	8.0	6.5	-	1.7
Shepparton	7.1	6.9	5.5		1.6
Warrnambool and South West	6.7	6.2	5.2		1.5
Queensland	8.6	7.5	6.3		2.3
Greater Brisbane	9.1	8.1	6.8		2.3
Brisbane - East	7.1	6.3	4.9		2.2
Brisbane - North	10.3	9.2	7.8		2.5
Brisbane - South	9.9	8.7	7.1		2.8
Brisbane - West	7.6	7.3	6.4		1.2
Brisbane Inner City	16.5	14.8	13.5		3.0
Ipswich	8.0	6.9	5.5		2.5
Logan - Beaudesert	6.7	6.1	5.1		1.6
Moreton Bay - North	8.7	7.9	6.4		2.3
Moreton Bay - South	4.0	3.7	3.2	-(	0.8
Rest of Queensland	8.2	7.0	5.8		2.4
Cairns	10.5	8.8	7.2		3.3
Darling Downs - Maranoa	6.7	5.8	4.9	-	1.8
Central Queensland	7.4	6.3	5.4		2.0
Gold Coast	8.1	6.6	5.3		2.8
Mackay - Isaac - Whitsunday	6.9	5.6	5.3		1.6
Queensland - Outback	15.2	14.6	13.2		2.0
Far North	25.1	24.6	21.9		3.2
Outback - North	11.3	10.9	9.8		1.5
Outback - South	9.6	8.6	7.2		2.4
Sunshine Coast	7.2	5.9	4.5		2.7
Toowoomba	8.3	7.7	6.3		2.0
Townsville	8.0	6.8	6.1		1.9
Wide Bay	7.8	7.3	6.1		1.7
South Australia	10.0	9.1	7.8		2.2
Greater Adelaide	10.7	9.7	8.4		2.3
Adelaide - Central and Hills	10.8	10.2	9.3		1.5
Adelaide - North	9.9	9.1	7.7		2.2
Adelaide - South	9.1	8.0	6.9		2.2
Adelaide - West	14.5	12.6	10.5		4.0
Rest of South Australia	7.5	7.1	6.1		L.4
Barossa - Yorke - Mid North	6.2	6.0	5.0		1.2
South Australia - Outback	10.9	10.2	9.4		1.5
Eyre Peninsula and South West	10.3	9.6	8.8		1.5
Outback - North and East	12.1	11.6	10.7		1.4
South Australia - South East	6.7	6.3	5.3		1.4
Vestern Australia	7.2	6.4	5.2		2.0
Greater Perth	7.3	6.5	5.1		2.2
Mandurah	5.9	5.7	4.4		1.5

	2006	2011	2016	2006 - 2016	
Sub-State Region	per cent	per cent	per cent	change percentage points	Trend
Perth - Inner	12.7	11.8	9.6	-3.1	
Perth - North East	7.1	6.1	4.8	-2.3	
Perth - North West	6.0	5.2	4.2	-1.8	
Perth - South East	7.4	6.4	5.0	-2.4	
Perth - South West	6.9	6.1	4.8	-2.1	
Rest of Western Australia	6.9	6.4	5.5	-1.4	
Bunbury	5.2	4.8	3.9	-1.3	
Western Australia - Wheat Belt	5.6	5.1	4.2	-1.4	
Western Australia - Outback (North)	11.2	10.8	10.6	-0.6	
Kimberley	16.3	15.6	15.6	-0.7	<u> </u>
East Pilbara	9.4	8.5	7.5	-1.9	
West Pilbara	5.2	5.3	5.3	0.1	
Western Australia - Outback (South)	7.8	7.0	6.1	-1.7	
Esperance	5.8	5.3	5.2	-0.6	<u> </u>
Gascoyne	8.6	6.7	6.8	-1.8	<u> </u>
Goldfields	9.2	8.5	7.0	-2.2	
Mid West	7.2	6.5	5.5	-1.7	
Tasmania	9.0	8.2	7.3	-1.7	
Greater Hobart	10.4	9.4	8.3	-2.1	
Rest of Tasmania	8.1	7.2	6.5	-1.6	
Launceston and North East	8.7	8.0	7.1	-1.6	
South East	4.7	4.0	3.3	-1.4	
West and North West	8.3	7.3	6.7	-1.6	
Northern Territory	14.5	12.6	11.5	-3.0	
Greater Darwin	8.4	7.3	5.9	-2.5	
Rest of Northern Territory	24.1	21.0	21.3	-2.8	
Northern Territory - Outback	24.1	21.0	21.3	-2.8	
Alice Springs	17.4	14.2	15.8	-1.6	
Barkly	27.0	26.6	24.0	-3.0	
Daly - Tiwi - West Arnhem	36.0	33.7	31.4	-4.6	
East Arnhem	34.4	28.6	32.9	-1.5	
Katherine	24.3	19.8	18.8	-5.5	
Australian Capital Territory	7.2	6.4	5.7	-1.5	
Australian Capital Cities	10.8	9.8	8.8	-2.0	
Australian Rest of States	8.6	7.5	6.2	-2.4	

Dwellings with no motor vehicle by sub-state region (continued)

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

Sub-state regions are SA4 (2016 ASGS), italicised regions are SA3 (2016 ASGS).

Data based on place of enumeration.

Motor vehicles includes vans and company vehicles kept at home but excludes motorcycles and scooters.

# C 2.1.4 Kilometres travelled by passenger vehicles

This indicator measures road passenger vehicle use within the vehicle's state of registration. Vehicle travel outside the vehicle's state of registration is not presented in the ABS *Survey of Motor Vehicle Use*, but was around 4 per cent of the total in 2011-12. This measure includes passenger vehicles, motorcycles, light commercial vehicles and buses.<sup>65</sup>

Passenger vehicle use is a major component of the total road transport task. Changes in passenger vehicle kilometres travelled over time (alongside trends in the freight task) are important for assessing the extent of growth in the overall transport task in a region.

	2006-07	2011-12	2016-17*	2006-07 - 2016-17*	
Capital City / Balance of State	billion kilometres	biliion kilometres	billion kilometres	change billion kilometres	Trend
Greater Sydney	35.3	37.3	40.3	5.0	_
Rest of New South Wales	27.1	28.5	31.2	4.2	
Greater Melbourne	34.2	36.6	40.3	6.1	
Rest of Victoria	19.0	20.3	22.1	3.1	
Greater Brisbane	18.8	20.5	22.6	3.8	
Rest of Queensland	24.8	25.7	27.7	2.9	
Greater Adelaide	9.6	9.5	10.3	0.6	
Rest of South Australia	5.4	5.4	5.8	0.4	
Greater Perth	15.0	16.2	17.9	2.9	
Rest of Western Australia	7.4	8.2	8.6	1.2	/
Greater Hobart	1.9	1.9	1.9	0.1	
Rest of Tasmania	3.0	3.1	3.1	0.1	
Greater Darwin	0.9	1.0	1.1	0.2	
Rest of Northern Territory	0.9	0.9	0.9	0.0	
Australian Capital Territory	3.5	3.7	3.9	0.5	
Australian Capital Cities	119.1	126.6	138.3	19.2	_
Australian Rest of States	87.5	92.1	99.5	11.9	
AUSTRALIA	206.6	218.7	237.8	31.1	

Table C 2.1.4.a Passenger vehicle kilometres travelled (on road) by capital city/balance of state

Source: BITRE 2017, Unpublished data, Road vehicle-kilometres travelled, Canberra

Vehicle kilometres travelled (VKT) estimates are based on the ABS, Australian Statistical Geography Standard (ASGS) and have been aggregated to Greater Capital Cities geographical classifications.

The total for Australia, Australian capital cities and rest of states may differ from summations of GCCSA classifications due to rounding. Includes cars, motorcycles, light commercial vehicles and buses. Excludes articulated trucks, rigid and other trucks.

Estimates are based on the location of the road, not the start point or destination of the driver or goods.

Change may vary from annual figures due to rounding.

BITRE estimates are based on the ABS Survey of Motor Vehicle Use and Census of Motor Vehicles by smoothing VKT values with relation to location and vehicle types, and adjusted using annual fuels sales volumes from the Australian Petroleum Statistics (Department of Industry, Innovation and Science) and BITRE fleet fuel efficiency data. For more information see BTCE 1995, Report 88; Cosgrove & Mitchell 2001; BTRE 2007, Working Paper 71; BITRE 2009, Working Paper 73; and BITRE 2010, Long-term Projections of Australian Transport Emissions: Base Case 2010.

\* 2016-17 estimates are preliminary.

<sup>&</sup>lt;sup>65</sup> BITRE 2012, Research Report 127, Traffic Growth in Australia, Canberra.

# C 2.1.5 Network delays due to congestion

This indicator measures the average minutes per kilometre travelled lost due to congestion for each capital city. As well as impacting productivity, higher congestion reduces wellbeing through longer travel times, and reduced accessibility.

Table C 2.1.5.a Average network delay due to congestion by selected major urban area

	2003-04	2008-09	2013-14
Major Urban Area	minutes per kilometre	minutes per kliometre	minutes per kliometre
Greater Sydney	0.73	0.90	0.58
Greater Melbourne	0.70	0.84	0.96
Greater Brisbane	0.55	0.90	n.a.
Greater Adelaide	0.72	0.80	0.80
Greater Perth	0.42	0.63	0.75
Australian Capital Territory	n.a.	1.21	n.a.

Source: Austroads, National Performance Indicators Data, Graph 7.3.1 AM peak congestion indicator (urban)

The major urban areas of Sydney, Melbourne, Brisbane, Adelaide and Perth presented in this table are broadly comparable to ASGS Greater Capital City Statistical Areas.

Represents the difference between actual and nominal travel time: the delay from traffic conditions which do not permit travel at the posted speed limit.

Data refers to the weekday morning peak congestion time, in each direction.

Due to data variability change comparisons over time have not been reported.

Darwin and Hobart have not been reported due to insufficient data.

Yearbook 2016 reported incorrect data for South Australia and Western Australia; and 2012-13 Sydney data. This data should not be used and is superseded by this publication.

n.a. Not available.

# C 2.2 Moving freight

# C 2.2.1 Road freight activity

This indicator measures road freight activity by region. Freight use represents a major component of the total road transport task. Changes over time in road freight tonne kilometres (alongside trends in the passenger vehicle task) are important for assessing the extent of growth in the overall transport task in a region.<sup>66</sup>

	2004-05	<b>2009-10</b>	2014-15	2004-05 to 2014-15	
Capital City / Balance of State	billion tonne kilometres	billion tonne kliometres	billion tonne kilometres	change billion tonne kilometres	Trend
Sydney	10.4	11.0	12.7	2.2	/
Rest of New South Wales	48.4	52.5	53.0	4.5	
Melbourne	10.3	11.4	12.7	2.4	
Rest of Victoria	24.6	26.2	26.8	2.2	
Brisbane	6.8	8.3	9.4	2.6	
Rest of Queensland	22.0	24.9	30.8	8.8	
Adelaide	2.4	2.7	3.1	0.7	
Rest of South Australia	10.1	10.6	10.6	0.5	
Perth	4.1	5.5	6.9	2.7	
Rest of Western Australia	20.2	25.5	40.0	19.8	
Hobart	0.3	0.4	0.4	0.1	
Rest of Tasmania	2.8	2.8	2.8	0.0	
Darwin	0.2	0.3	0.3	0.1	
Rest of Northern Territory	2.0	1.9	2.1	0.1	$\checkmark$
Australian Capital Territory	0.3	0.3	0.4	0.1	
Australian Capital Cities	34.9	39.8	45.9	10.9	_
Australian Rest of States	130.2	144.4	166.1	35.9	
AUSTRALIA	165.2	184.3	212.0	46.8	/

Table C 2.2.1.a Road freight tonne kilometres by capital city/balance of state

Source: BITRE 2016, Statistical report, Australian Infrastructure Statistics - Yearbook 2016, Canberra

Estimates are based on the location of the road, not the start point or destination of the driver or goods.

BITRE road freight estimates are based on the ABS Survey of Motor Vehicle Use (SMVU).

A detailed description of BITRE modelling techniques for freight estimation is provided in Freight Measurement and Modelling (BITRE 2006), Change may vary from annual figures due to rounding.

<sup>&</sup>lt;sup>66</sup> BITRE 2006, Research Report 112, Freight Measurement and Modelling in Australia, Canberra.

# C 2.2.2 Volume of freight through ports

This indicator measures the volume of freight, both international and domestic, being loaded and unloaded at ports. The indicator is only presented for those regions that contain a port with significant and ongoing freight activity. The volume of freight through ports is associated with freight infrastructure needs in the regions near ports, and employment at ports and related industries.

			2005-06	2010-11	2015-16	2005-06 to 2015-16
Port	Remoteness Class	Sub State Region Class	tonn <del>e</del> (miliion)	tonn <del>e</del> (million)	tonne (million)	change tonne (million)
Port Hedland	Remote	Western Australia - Outback (North)	111.0	198.4	457.4	346.5
Port Walcott	Remote	Western Australia - Outback (North)	55.3	81.0	187.7	132.4
Dampier	Very Remote	Western Australia - Outback (North)	112.7	167.7	171.1	58.5
Newcastle	Major Cities	Newcastle and Lake Macquarie	85.9	115.0	164.8	79.0
Hay Point	Outer Regional	Mackay - Isaac - Whitsunday	80.4	87.8	115.6	35.2
Gladstone	Inner Regional	Central Queensland	67.3	76.4	115.4	48.0
Fremantle	Major Cities	Perth - South West	25.2	25.9	34.7	9.5
Weipa	Very Remote	Queensland - Outback	17.9	22.4	33.3	15.5
Melbourne	Major Cities	Melbourne - Inner	29.0	31.8	33.1	4.0
Brisbane	Major Cities	Brisbane - East	26.5	32.6	29.6	3.0
Abbot Point	Outer Regional	Mackay - Isaac - Whitsunday	12.0	15.0	26.4	14.4
Sydney	Major Cities	Sydney - City and Inner South	26.5	28.1	26.2	-0.3
Port Kembla	Major Cities	Illawarra	25.3	29.8	20.1	-5.2
Geraldton	Outer Regional	Western Australia - Outback (South)	5.1	10.1	16.2	11.1
Bunbury	Inner Regional	Bunbury	10.3	13.5	15.8	5.5
Esperance	Remote	Western Australia - Outback (South)	8.3	11.3	15.1	6.8
Adelaide	Major Cities	Adelaide - West	11.5	12.5	13.4	2.0
Darwin	Outer Regional	Darwin	3.1	12.2	11.9	8.8
Geelong	Major Cities	Geelong	11.5	11.9	11.2	-0.4
Whyalla	Outer Regional	South Australia - Outback	4.0	7.8	10.4	6.4
Townsville	Outer Regional	Townsville	10.2	10.5	7.7	-2.5
Portland	Outer Regional	Warrnambool and South West	3.6	3.7	6.8	3.1
Burnie	Outer Regional	West and North West	4.0	4.0	5.0	1.0
Albany	Outer Regional	Western Australia - Wheat Belt	2.8	3.0	4.7	2.0
Devonport	Inner Regional	West and North West	3.2	3.2	3.6	0.4
Bell Bay	Outer Regional	Launceston and North East	5.2	4.0	3.3	-1.8
Thevenard	Very Remote	South Australia - Outback	1.9	2.9	2.7	0.8
Port Latta	Outer Regional	West and North West	2.3	2.0	2.5	0.2
Mackay	Inner Regional	Mackay - Isaac - Whitsunday	3.5	2.6	2.4	-1.1
Port Lincoln	Remote	South Australia - Outback	1.8	2.9	2.3	0.5
Hobart	Inner Regional	Hobart	2.6	2.3	2.0	-0.6
Gove	Very Remote	Northern Territory - Outback	n.a.	0.0	1.8	n.a.
Port Bonython	Outer Regional	South Australia - Outback	1.0	0.9	1.8	0.7
Yampi Sound	Very Remote	Western Australia - Outback (North)	1.1	3.3	1.6	0.5
Klein Point	Remote	Barossa - Yorke - Mid North	1.9	1.6	1.4	-0.4
Hastings	Major Cities	Mornington Peninsula	4.5	2.3	1.3	
Port Pirie	Outer Regional	Barossa - Yorke - Mid North	0.8	0.6	0.8	-0.1
Cairns	Outer Regional	Cairns	1.3	0.6	0.7	
Broome	Remote	Western Australia - Outback (North)	0.5	0.3	0.6	

#### Volume of freight through top 50 ports (continued)

			2005-06	2010-11	2015-16	2005-06 to 2015-16
Port	Remoteness Class	Sub State Region Class	tonne (million)	tonne (million)	tonne (million)	change tonne (million)
Eden	Outer Regional	Capital Region	1.1	1.1	0.6	-0.5
Port Giles	Remote	Barossa - Yorke - Mid North	0.0	0.9	0.6	0.6
Karumba	Very Remote	Queensland - Outback	1.1	0.7	0.5	-0.6
Milner Bay	Very Remote	Northern Territory - Outback	0.5	0.6	0.5	0.0
Wallaroo	Outer Regional	Barossa - Yorke - Mid North	0.4	0.9	0.5	0.1
Ardrossan	Outer Regional	Barossa - Yorke - Mid North	0.6	0.5	0.4	-0.1
Barrow Island	Very Remote	Western Australia - Outback (North)	0.3	0.1	0.4	0.1
Wyndham	Very Remote	Western Australia - Outback (North)	0.4	0.2	0.2	-0.2
Carnarvon	Remote	Western Australia - Outback (South)	3.7	3.9	0.2	-3.6
Bundaberg	Inner Regional	Wide Bay	0.4	0.3	0.1	-0.3
Rockhampton	Inner Regional	Central Queensland	0.0	0.0	0.1	0.1

Source: ABS 2017, Customised report, International Merchandise Trade, Australia (cat. no. 5422.0); and BITRE 2017, Unpublished data, Australian Coastal Freight.

Each top 50 port has been classified into 2011 ASGS Remoteness Areas and 2016 ASGS SA4s.

The statistics of some ports include data for other associated ports, terminals or facilities. For a full list of ports and grouped port/terminals/facilities, more information can be obtained from BITRE, Australian Sea Freight statistical report, Appendix A: <br/> <br/>

Ports listed only include international and coastal volumes that have not been confidentialised by the ABS. This is because indicating port of origin or destination for cargo may lead to the disclosure of commercially sensitive information. More information can be obtained from ABS Information Paper: International Merchandise Trade Statistics, Australia: Data Confidentiality (cat. no. 5487.0).

Calculation of international and coastal export volumes exclude ship stores. In particular, this removes bunker fuel from the trade statistics. n.a. Not available.

## C 2.2.3 Value of international freight through ports

The value of international freight shows the value of imports and exports that move through sea ports in a region. This provides an indication of the relative impact of international economic engagement on the economy of that region.

Due to the structure of transport networks, the value of freight through ports in a region does not necessarily mean the goods were produced in that same region.

			2005-06	2010-11	2015-16	2005-06 to 2015-16
Port	Remoteness Class	Sub State Region Class	\$ million (real)	\$ million (real)	\$ million (real)	change \$ million (real)
Melbourne	Major Cities	Melbourne - Inner	73,716	73,779	82,240	8,524
Sydney	Major Cities	Sydney - City and Inner South	65,404	61,588	68,296	2,892
Brisbane	Major Cities	Brisbane - East	35,814	37,790	40,120	4,306
Dampier	Very Remote	Western Australia - Outback (North)	20,771	44,792	39,723	18,952
Port Hedland	Remote	Western Australia - Outback (North)	8,157	32,359	28,097	19,940
Fremantle	Major Cities	Perth - South West	26,284	30,348	28,035	1,752
Gladstone	Inner Regional	Central Queensland	10,994	13,352	15,691	4,697
Newcastle	Major Cities	Newcastle and Lake Macquarie	10,117	17,070	15,244	5,127
Adelaide	Major Cities	Adelaide - West	10,852	10,923	15,041	4,189
Port Kembla	Major Cities	Illawarra	5,384	14,916	14,304	8,920
Hay Point	Outer Regional	Mackay - Isaac - Whitsunday	14,792	20,766	12,304	-2,488
Port Walcott	Remote	Western Australia - Outback (North)	3,296	11,196	11,258	7,962
Townsville	Outer Regional	Townsville	7,190	8,999	7,427	237
Darwin	Outer Regional	Darwin	2,900	9,818	7,214	4,314
Bunbury	Inner Regional	Bunbury	3,801	4,984	6,010	2,209
Broome	Remote	Western Australia - Outback (North)	147	706	5,358	5,211
Geelong	Major Cities	Geelong	4,951	5,860	3,908	-1,043
Geraldton	Outer Regional	Western Australia - Outback (South)	1,901	2,611	2,735	834
Abbot Point	Outer Regional	Mackay - Isaac - Whitsunday	1,225	2,206	2,414	1,189
Esperance	Remote	Western Australia - Outback (South)	2,097	3,164	2,321	224
Portland	Outer Regional	Warrnambool and South West	2,221	1,744	1,943	-277
Albany	Outer Regional	Western Australia - Wheat Belt	614	754	1,171	557
Mackay	Inner Regional	Mackay - Isaac - Whitsunday	1,262	1,080	1,017	-245
Weipa	Very Remote	Queensland - Outback	265	278	886	620
Port Lincoln	Remote	South Australia - Outback	598	1,081	829	231
Bell Bay	Outer Regional	Launceston and North East	1,742	1,457	736	-1,006
Cairns	Outer Regional	Cairns	1,284	829	656	-628
Hastings	Major Cities	Mornington Peninsula	947	751	652	-295
Port Pirie	Outer Regional	Barossa - Yorke - Mid North	249	379	473	224
Whyalla	Outer Regional	South Australia - Outback	209	958	470	261

Table C 2.2.3.a Value of international freight through top 30 ports

Source: ABS 2017, Customised report, International Merchandise Trade, Australia (cat. no. 5422.0); ABS 2017, Consumer Price Index, Australia, Jun 2017 (cat. no. 6401.0); and BITRE 2017, Unpublished data, Australian Coastal Freight.

Data converted to real terms using CPI weighted average of eight capital cities. Reference year is 2016-17.

The top 30 ports are ranked in descending order by the largest combined value of free-on-board imports and exports of Australia's international freight, over the 2015-16 financial year.

Each top 30 ports has been classified into 2011 ASGS Remoteness Areas and 2016 ASGS SA4s.

The statistics of some ports include data for other associated ports, terminals or facilities. For a full list of ports and grouped port/ terminals/facilities, more information can be obtained from BITRE, Australian Sea Freight statistical report, Appendix A: <br/>bitre.gov.au/<br/>statistics/maritime/australian\_sea\_freight.aspx>.

Locations listed only include international values that have not been confidentialised by the ABS. This is because indicating port of origin or destination for cargo may lead to the disclosure of commercially sensitive information. More information can be obtained from ABS Information Paper: International Merchandise Trade Statistics, Australia: Data Confidentiality (cat. no. 5487.0).

Calculation of international values exclude ship stores. In particular, this removes bunker fuel from the trade statistics.

# C 2.3 Communications and utilities

## C 2.3.1 Dwellings with an internet connection

This indicator provides a measure of the proportion of dwellings from which internet can be accessed. This includes access through an ADSL, fibre, cable or wireless connection to the dwelling, as well as other means such as 3G or 4G mobile broadband.<sup>67</sup> Some dwellings may have access to an internet connection even if it is not paid for by the household, for example those who have an internet connection provided by their employer.

Internet access can vary based on the characteristics of people living in the dwelling and the type and cost of internet access available in a region. Access to the internet can benefit households by enabling improved communications, access to online services, greater consumer choice through e-commerce and savings from reduced travel.

#### Table C 2.3.1.a Dwellings with an internet connection by remoteness class

	2006	2011	2016	2006 - 2016	
Remoteness Class	per cent	per cent	per cent	change percentage points	Trend
Major Cities	66.3	82.1	87.6	21.3	
Inner Regional	57.9	75.2	81.8	23.9	/
Outer Regional	55.2	72.6	78.6	23.4	
Remote	56.7	73.7	78.6	21.9	
Very Remote	46.6	61.3	69.6	23.0	
AUSTRALIA	63.4	79.6	85.5	22.1	

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

Remoteness Area classification is based on the 2011 ASGS. The total for Australia is based on the 2016 ASGS. Data based on place of enumeration.

Occupied private dwellings. Includes any type of internet connection that can be accessed from the dwelling via any method (computers, mobile or smart phones, gaming consoles, etc).

<sup>&</sup>lt;sup>67</sup> ABS 2016, Census of Population and Housing: Census Dictionary, 2016 (cat. no. 2901.0), Canberra.

	2006	2011	2016	2006 - 2016	
Major Urban Area	per cent	per cent	per cent	change percentage points	Trend
Greater Sydney	68.3	82.8	88.0	19.7	
Greater Melbourne	66.0	82.0	87.9	21.9	
Greater Brisbane	68.3	83.9	88.6	20.3	
Greater Perth	66.8	83.0	88.6	21.8	
Greater Adelaide	60.2	77.5	84.2	24.0	
Gold Coast - Tweed Heads	66.2	83.0	87.3	21.1	
Newcastle - Maitland	58.0	75.5	82.5	24.5	
Canberra - Queanbeyan	74.2	87.2	91.2	17.0	
Sunshine Coast	66.2	82.4	87.8	21.6	
Wollongong	59.7	76.4	82.7	23.0	
Geelong	59.3	77.4	83.9	24.6	
Greater Hobart	58.0	75.6	82.5	24.5	
Townsville	65.2	81.8	85.7	20.5	
Cairns	65.6	81.3	85.1	19.5	
Greater Darwin	66.0	83.4	87.9	21.9	
Toowoomba	60.6	77.5	83.8	23.2	
Ballarat	56.4	75.4	82.8	26.4	
Bendigo	57.1	75.3	82.4	25.3	
Albury - Wodonga	58.8	76.0	82.2	23.4	
Launceston	55.6	73.2	81.2	25.6	

Table C 2.3.1.b Dwellings with an internet connection by major urban area

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

The major urban areas of Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart and Darwin are based on the 2016 ASGS Greater Capital City Statistical Area (GCCSA) classification. All other major urban areas are based on the 2016 ASGS Significant Urban Area (SUA) classification. Data based on place of enumeration.

Occupied private dwellings. Includes any type of internet connection that can be accessed from the dwelling via any method (computers, mobile or smart phones, gaming consoles, etc).

	2006	2011	2016	2006 - 2016	
Sub-State Region	per cent	per cent	per cent	change percentage points	Trend
New South Wales	63.6	79.2	84.9	21.3	
Greater Sydney	68.3	82.8	88.0	19.7	
Central Coast	59.4	76.2	83.1	23.7	
Sydney - Baulkham Hills and Hawkesbury	81.3	90.3	93.4	12.1	
Sydney - Blacktown	64.3	81.4	87.4	23.1	
Sydney - City and Inner South	69.4	85.0	89.0	19.6	
Sydney - Eastern Suburbs	72.3	85.9	90.2	17.9	
Sydney - Inner South West	61.3	77.7	84.3	23.0	
Sydney - Inner West	71.2	84.6	89.2	18.0	
Sydney - North Sydney and Hornsby	79.7	90.1	93.4	13.7	
Sydney - Northern Beaches	74.8	87.0	91.2	16.4	
Sydney - Outer South West	65.9	82.0	86.7	20.8	
Sydney - Outer West and Blue Mountains	66.6	81.8	87.0	20.4	
Sydney - Parramatta	63.7	80.5	86.3	22.6	
Sydney - Ryde	74.5	85.8	90.6	16.1	
Sydney - South West	59.8	76.9	83.7	23.9	
Sydney - Sutherland	71.7	84.6	89.6	17.9	
Rest of New South Wales	56.4	73.3	79.9	23.5	
Capital Region	59.1	75.4	80.8	21.7	
Central West	53.8	70.8	76.9	23.1	
Coffs Harbour - Grafton	56.1	73.8	80.5	24.4	
Far West and Orana	49.9	66.6	72.9	23.0	
Hunter Valley exc Newcastle	58.1	75.8	81.7	23.6	
Illawarra	60.1	76.5	82.9	22.8	
Mid North Coast	52.6	69.8	77.2	24.6	
Murray	54.5	71.2	78.1	23.6	
New England and North West	51.7	68.7	75.0	23.3	
Newcastle and Lake Macquarie	58.9	76.0	83.1	24.2	
Richmond - Tweed	57.6	74.6	81.1	23.5	
Riverina	54.4	71.0	77.4	23.0	-
Southern Highlands and Shoalhaven	58.7	75.0	82.0	23.3	-
lictoria	63.1	79.7	86.0	22.9	-
Greater Melbourne	66.0	82.0	87.9	21.9	
Melbourne - Inner	68.5	84.7	89.5	21.0	
Melbourne - Inner East	72.9	85.1	90.1	17.2	
Melbourne - Inner South	69.1	83.3	89.3	20.2	
Melbourne - North East	63.3	80.1	86.5	23.2	
Melbourne - North West	60.0	78.1	85.0	25.0	
Melbourne - Outer East	69.6	84.2	89.5	19.9	
Melbourne - South East	64.8	84.2 81.4	89.5 87.8	23.0	
Melbourne - West	61.5	79.7	86.5	25.0	
	61.5	79.7	86.5 86.1	25.0	
Mornington Peninsula			80.1 80.4		
Rest of Victoria	55.3	<b>73.2</b>		25.1	
Ballarat Bendigo	55.8 57.5	73.8 75.1	81.2 82.2	25.4	

## Table C 2.3.1.c Dwellings with an internet connection by sub-state region

	2006	2011	2016	2006 - 2016	
Sub-State Region	per cent	per cent	per cent	change percentage points	Trend
Geelong	59.5	77.5	84.0	24.5	
Hume	55.9	73.7	80.3	24.4	
Latrobe - Gippsland	55.4	73.1	80.1	24.7	
North West	50.3	67.5	75.2	24.9	
Shepparton	52.1	70.4	78.3	26.2	
Warrnambool and South West	52.4	70.6	78.1	25.7	
Queensland	64.8	81.2	86.1	21.3	
Greater Brisbane	68.3	83.9	88.6	20.3	
Brisbane - East	68.5	83.9	88.8	20.3	
Brisbane - North	65.0	81.6	87.4	22.4	
Brisbane - South	70.7	85.1	90.1	19.4	
Brisbane - West	80.1	90.3	93.7	13.6	
Brisbane Inner City	73.1	88.0	91.7	18.6	
lpswich	61.1	79.4	84.9	23.8	
Logan - Beaudesert	65.6	82.6	86.6	21.0	
Moreton Bay - North	59.7	78.2	84.1	24.4	
Moreton Bay - South	75.2	88.5	91.9	16.7	
Rest of Queensland	61.5	78.7	83.8	22.3	
Cairns	61.2	77.3	82.2	21.0	
Darling Downs - Maranoa	51.2	70.4	76.6	25.4	
Central Queensland	60.5	77.9	82.5	22.0	
Gold Coast	68.1	84.4	88.2	20.1	
Mackay - Isaac - Whitsunday	62.3	79.8	83.3	21.0	
Queensland - Outback	49.3	66.9	75.2	25.9	
Far North	40.2	58.0	73.5	33.3	
Outback - North	55.4	72.9	78.0	22.6	
Outback - South	51.1	68.7	73.5	22.4	
Sunshine Coast	66.4	82.5	87.8	21.4	
Toowoomba	60.1	77.1	83.4	23.3	
Townsville	61.5	78.9	83.1	21.6	
Wide Bay	53.7	72.1	78.5	24.8	
South Australia	58.2	75.7	82.6	24.4	
Greater Adelaide	60.2	77.5	84.2	24.0	
Adelaide - Central and Hills	66.1	81.1	86.8	20.7	
Adelaide - North	58.3	76.7	83.3	25.0	
Adelaide - South	62.8	79.4	85.9	23.1	
Adelaide - West	52.3	71.8	80.0	27.7	
Rest of South Australia	51.3	69.6	77.1	25.8	
Barossa - Yorke - Mid North	51.2	69.2	77.1	25.9	
South Australia - Outback	50.1	68.8	75.0	24.9	
Eyre Peninsula and South West	50.3	69.5	76.5	26.2	
Outback - North and East	49.6	67.2	71.5	21.9	
South Australia - South East	51.9	70.2	78.0	26.1	
Vestern Australia	65.2	81.6	87.2	22.0	
Greater Perth	66.8	83.0	88.6	21.8	
Mandurah	59.6	78.2	84.7	25.1	-

Dwellings with an internet connection by sub-state region (continued)

#### Dwellings with an internet connection by sub-state region (continued)

	2006	2011	2016	2006 - 2016	
Sub-State Region	per cent	per cent	per cent	change percentage points	Trend
Perth - Inner	72.0	86.2	90.7	18.7	
Perth - North East	64.7	81.6	87.7	23.0	
Perth - North West	68.4	84.2	89.4	21.0	
Perth - South East	65.4	82.3	88.2	22.8	
Perth - South West	66.5	82.8	88.4	21.9	
Rest of Western Australia	59.4	76.4	81.7	22.3	
Bunbury	60.2	78.1	84.0	23.8	
Western Australia - Wheat Belt	57.0	74.0	79.7	22.7	
Western Australia - Outback (North)	64.7	78.6	81.2	16.5	
Kimberley	51.9	67.5	73.7	21.8	
East Pilbara	68.7	83.3	83.9	15.2	
West Pilbara	76.7	89.3	88.4	11.7	
Western Australia - Outback (South)	58.6	75.7	80.8	22.2	
Esperance	59.0	75.9	81.8	22.8	
Gascoyne	53.9	72.9	77.7	23.8	
Goldfields	61.1	78.3	82.2	21.1	
Mid West	57.6	74.4	80.3	22.7	
Fasmania	54.9	72.9	80.0	25.1	
Greater Hobart	58.0	75.6	82.5	24.5	
Rest of Tasmania	52.7	70.9	78.1	25.4	
Launceston and North East	54.1	71.8	79.3	25.2	
South East	50.3	69.9	77.1	26.8	
West and North West	51.5	70.0	77.0	25.5	
Northern Territory	60.2	76.6	82.4	22.2	
Greater Darwin	66.0	83.4	87.9	21.9	
Rest of Northern Territory	50.2	64.6	71.5	21.3	
Northern Territory - Outback	50.2	64.6	71.5	21.3	
Alice Springs	57.6	73.1	75.7	18.1	
Barkly	36.4	53.1	63.9	27.5	
Daly - Tiwi - West Arnhem	31.2	45.7	63.1	31.9	
East Arnhem	54.7	65.0	72.1	17.4	
Katherine	46.4	62.2	70.3	23.9	
Australian Capital Territory	75.2	87.9	91.8	16.6	
Australian Capital Cities	66.7	82.3	87.8	21.1	
Australian Rest of States	57.4	74.7	81.0	23.6	

Source: ABS 2017, Customised report, Census of Population and Housing, Australia

Sub-state regions are SA4 (2016 ASGS), italicised regions are SA3 (2016 ASGS).

Data based on place of enumeration.

Occupied private dwellings. Includes any type of internet connection that can be accessed from the dwelling via any method (computers, mobile or smart phones, gaming consoles, etc).

# C 2.3.2 Residential water supply

Urban water utilities with over 10,000 customers provide water to about 85 per cent of Australia's population. Residential water supply is influenced by climate, rainfall, any government restrictions on domestic and commercial water use, water conservation measures, the available water supply, housing density and the price of water.<sup>68</sup>

Table C 2.3.2.a Average annual residentia	water supplied by major urban area
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	2009-10	2012-13	2015-16	
Major Urban Area	kL per property	kL per property	kL per property	
Adelaide	n.a	193	206	
Australian Capital Territory	199	199	195	
Cairns	262	258	244	
Darwin	458	454	405	
Geelong	150	160	170	
Melbourne	142	152	154	
Newcastle-Maitland	184	176	166	
Perth	276	249	240	
South East Queensland	n.a	*156	159	
Sydney	205	198	201	
Toowoomba	n.a	130	145	
Townsville	434	383	369	

Source: Bureau of Meteorology 2017, National Performance Report 2015-16 - Urban Water Utilities

Major urban areas have been classified according to boundaries outlined in the National Performance Report. This is broadly comparable to the ASGS Significant Urban Area and Greater Capital City Statistical Area classifications.

Average annual residential water supply is calculated on major utilities (with greater than) 100,000 customers with the exception of Darwin, Cairns, Townsville and Toowoomba (with between 20,000 and 100,000 customers).

Due to year on year data variation, change and trend comparisons over time have not been reported.

\* Note that calculations use incomplete figures due to lack of data availability.

n.a. not available.

<sup>&</sup>lt;sup>68</sup> National Water Commission 2014, National Performance Report 2012-13: urban water utilities, Canberra.

# C 2.4 Land use

# C 2.4.1 Land area and land use

Land area for each region is based on the Australian Statistical Geography Standard (ASGS), and provides a context for understanding the distribution and density of settlement, industry and infrastructure.

The land cover indicators provide information on how land is being used. This includes land that is covered by vegetation as parkland or public open space, land that is part of a built-up urban area, and land that is agricultural. This information provides the foundation for regional and urban development planning.

	Table C 2.4.1.a	Land area by	/ remoteness class
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	Land area
Remoteness Class	hectare
	2016
Major Cities	1,889,050
Inner Regional	24,639,671
Outer Regional	78,398,791
Remote	92,233,280
Very Remote	571,620,069
AUSTRALIA	768,812,632

Source: ABS 2016, Australian Statistical Geography Standard (ASGS), Volume 1 – Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001); and ABS 2011, Australian Statistical Geography Standard (ASGS), Volume 5 – Remoteness Structure, July 2011 (cat. no. 1270.0.55.005)

Land use data consistent with the 2016 ASGS is not available for 2011 Remoteness Areas.

Data has been sourced from ASGS meshblock land use classifications. This is different from Yearbook 2016, where land use was sourced from ABS, National Regional Profile, 2007 to 2011 (cat. no. 1379.0.55.001).

Major Urban Area	Land area	Built-up area	Agricultural	Vegetation	Other		
	hectare	per cent	per cent	per cent	per cent		
	2016						
Greater Sydney	1,236,819	15.2	9.5	57.1	18.3		
Greater Melbourne	999,251	25.1	44.7	20.6	9.7		
Greater Brisbane	1,584,196	14.1	58.8	18.0	9.1		
Greater Perth	641,622	30.6	22.0	37.8	9.5		
Greater Adelaide	325,984	22.7	55.1	10.8	11.4		
Gold Coast - Tweed Heads	140,504	36.7	21.1	21.1	21.1		
Newcastle - Maitland	117,913	26.1	30.8	22.8	20.3		
Canberra - Queanbeyan	49,934	48.2	17.2	29.3	5.3		
Sunshine Coast	163,310	19.7	29.3	23.9	27.1		
Wollongong	57,232	25.6	21.9	24.8	27.7		
Geelong	132,901	19.4	68.3	8.3	3.9		
Greater Hobart	169,536	20.8	25.7	22.0	31.4		
Townsville	69,329	28.1	42.3	22.0	7.5		
Cairns	25,405	47.3	12.6	35.0	5.1		
Greater Darwin	316,391	38.7	26.5	14.0	20.8		
Toowoomba	72,860	26.3	69.4	3.8	0.5		
Ballarat	34,362	25.9	32.2	10.7	31.2		
Bendigo	28,744	41.8	8.7	29.2	20.4		
Albury - Wodonga	62,825	15.7	66.6	9.8	7.9		
Launceston	43,541	21.8	68.2	6.6	3.4		

#### Table C 2.4.1.b Land area and land use by major urban area

Source: ABS 2016, Australian Statistical Geography Standard (ASGS), Volume 1 – Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001)

The major urban areas of Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart and Darwin are based on the 2016 ASGS Greater Capital City Statistical Area (GCCSA) classification. All other major urban areas are based on the 2016 ASGS Significant Urban Area (SUA) classification.

Data has been sourced from ASGS meshblock land use classifications. This is different from Yearbook 2016, where land use was sourced from ABS, National Regional Profile, 2007 to 2011 (cat. no. 1379.0.55.001).

Sub State Decier	Land area	Built-up area	Agricultural	Vegetation	Other
Sub-State Region	hectare	per cent	per cent	per cent	per cent
			2016		
New South Wales	80,081,078	0.8	83.7	10.0	5.5
Greater Sydney	1,236,819	15.2	9.5	57.1	18.3
Central Coast	168,107	9.9	10.4	53.4	26.2
Sydney - Baulkham Hills and Hawkesbury	325,150	2.9	5.0	64.8	27.2
Sydney - Blacktown	24,209	54.9	22.8	13.7	8.5
Sydney - City and Inner South	6,553	85.9	0.0	13.1	0.9
Sydney - Eastern Suburbs	5,773	72.4	0.0	27.1	0.4
Sydney - Inner South West	16,394	82.9	0.0	17.0	0.1
Sydney - Inner West	6,455	87.1	0.0	12.7	0.1
Sydney - North Sydney and Hornsby	27,510	44.9	0.0	55.1	0.0
Sydney - Northern Beaches	25,421	37.6	0.0	57.9	4.5
Sydney - Outer South West	127,845	13.2	32.0	29.6	25.2
Sydney - Outer West and Blue Mountains	396,813	6.1	5.3	74.5	14.2
Sydney - Parramatta	16,164	83.0	0.0	16.7	0.2
Sydney - Ryde	6,934	79.5	0.0	20.5	0.0
Sydney - South West	53,907	55.7	29.4	12.2	2.6
Sydney - Sutherland	29,587	26.5	0.0	73.4	0.0
Rest of New South Wales	78,844,259	0.6	84.9	9.2	5.3
Capital Region	5,189,556	1.0	61.1	24.9	13.0
Central West	7,029,706	1.0	83.9	10.8	4.3
Coffs Harbour - Grafton	1,322,976	1.6	34.6	41.4	22.4
Far West and Orana	33,936,369	0.1	95.8	2.2	1.9
Hunter Valley exc Newcastle	2,149,129	1.8	58.4	17.5	22.3
Illawarra	153,892	9.8	15.7	42.0	32.5
Mid North Coast	1,885,150	1.4	35.4	34.7	28.4
Murray	9,779,768	0.3	94.0	3.9	1.7
New England and North West	9,914,592	0.4	82.0	11.4	6.1
Newcastle and Lake Macquarie	87,061	27.0	8.5	36.5	28.1
Richmond - Tweed	1,027,114	2.5	56.4	21.6	19.5
Riverina	5,698,502	0.5	85.5	13.2	0.8
Southern Highlands and Shoalhaven	670,444	2.9	24.9	45.4	26.9
Victoria	22,749,563	2.4	63.3	31.0	3.4
Greater Melbourne	999,251	25.1	44.7	20.6	9.7
Melbourne - Inner	14,236	82.3	0.0	16.8	0.9
Melbourne - Inner East	14,674	83.6	0.0	16.4	0.0
Melbourne - Inner South	16,150	80.7	0.0	16.6	2.7
Melbourne - North East	185,126	15.6	36.0	30.9	17.6
Melbourne - North West	161,969	23.9	60.8	9.6	5.6
	187,856	17.5	40.7	38.8	2.9
Melbourne - Outer East	192,228	23.3	51.6	13.1	12.0
Melbourne - South East	141,635	29.6	50.1	13.0	7.2
Melbourne - West	85,377	30.7	40.7	10.1	18.5
Mornington Peninsula	21,750,312	1.3	64.2	31.4	3.1
Rest of Victoria	1,028,748	3.0	73.0	18.1	5.8
Ballarat	1,184,191	2.6	77.4	10.7	9.3
Bendigo Geelong	442,870	7.7	76.4	14.2	1.8

## Table C 2.4.1.c Land area and land use by sub-state region

Sub-State Region	Land area	Built-up area	Agricultural	Vegetation	Other
	hectare	per cent	per cent	per cent	per cent
	0.400 554	1.0	2016	10.0	
Hume	3,400,554	1.8	49.3	46.6	2.4
Latrobe - Gippsland	4,155,375	1.2	36.3	59.1	3.5
North West	7,807,274	0.4	72.4	25.6	1.6
Shepparton	1,093,411	1.8	90.4	6.0	1.8
Warmambool and South West	2,637,891	1.2	80.5	13.5	4.8
Queensland	173,017,208	0.6	89.7	7.3	2.5
Greater Brisbane	1,584,196	14.1	58.8	18.0	9.1
Brisbane - East	65,313	31.1	2.0	55.1	11.8
Brisbane - North	18,695	73.8	0.7	25.1	0.4
Brisbane - South	26,534	61.2	0.5	19.0	19.3
Brisbane - West	26,965	42.5	1.9	33.7	21.9
Brisbane Inner City	8,174	84.9	0.0	15.1	0.0
Ipswich	668,115	7.9	73.3	10.5	8.3
Logan - Beaudesert	258,615	19.4	68.7	8.4	3.5
Moreton Bay - North	434,446	6.3	58.7	28.3	6.8
Moreton Bay - South	77,339	31.5	9.4	18.6	40.4
Rest of Queensland	171,433,012	0.5	89.9	7.2	2.4
Cairns	2,133,797	2.3	51.3	39.6	6.7
Darling Downs - Maranoa	16,634,006	0.5	95.8	3.5	0.2
Central Queensland	11,758,800	1.1	85.5	12.4	1.0
Gold Coast	185,789	29.2	13.9	32.4	24.6
Mackay - Isaac - Whitsunday	9,014,011	0.6	92.9	5.3	1.3
Queensland - Outback	118,318,272	0.1	90.9	6.1	2.9
Far North	25,087,759	0.5	75.1	11.1	13.3
Outback - North	30,708,218	0.1	97.8	2.1	0.1
Outback - South	62,522,295	0.0	93.9	6.1	0.0
Sunshine Coast	308,591	12.9	35.5	29.2	22.4
Toowoomba	225,880	19.7	66.4	3.8	10.1
Townsville	8,003,610	0.9	91.7	5.9	1.5
Wide Bay	4,850,258	2.0	73.5	22.3	2.2
South Australia	98,427,491	0.3	71.6	2.1	26.1
Greater Adelaide	325,984	22.7	55.1	10.8	11.4
Adelaide - Central and Hills	149,727	11.1	67.7	9.5	11.7
Adelaide - North	93,999	26.8	49.9	12.4	10.9
Adelaide - South	66,308	28.7	47.3	10.1	13.9
Adelaide - West	15,949	82.5	0.0	16.8	0.7
Rest of South Australia	98,101,507	0.2	71.6	2.1	26.1
Barossa - Yorke - Mid North	3,771,635	0.6	95.7	3.1	0.6
South Australia - Outback	87,781,598	0.2	69.4	1.5	28.9
Eyre Peninsula and South West	23,530,548	0.3	18.1	3.8	77.8
Outback - North and East	64,251,050	0.1	88.2	0.7	11.0
South Australia - South East	6,548,274	0.6	87.5	8.4	3.5
Western Australia	252,664,624	0.2	83.0	8.1	8.7
Greater Perth	641,622	30.6	22.0	37.8	9.5
Mandurah	103,286	14.1	72.7	12.1	1.2
Perth - Inner	9,224	67.3	0.0	29.9	2.7
Perth - North East	176,243	20.0	21.1	38.7	20.2

## Land area and land use by sub-state region (continued)

Sub-State Region	Land area	Built-up area	Agricultural	Vegetation	Other
	hectare	per cent	per cent	per cent	per cent
			2016		
Perth - North West	88,400	32.1	10.4	46.1	11.4
Perth - South East	202,399	36.4	8.7	52.0	3.0
Perth - South West	62,070	62.4	3.7	21.3	12.5
Rest of Western Australia	252,023,002	0.1	83.1	8.1	8.7
Bunbury	2,480,241	2.3	33.6	57.9	6.1
Western Australia - Wheat Belt	19,734,538	0.4	83.0	13.8	2.9
Western Australia - Outback (North)	92,604,966	0.1	80.8	6.0	13.1
Kimberley	41,925,979	0.1	66.7	6.4	26.7
East Pilbara	39,072,378	0.1	94.3	3.3	2.3
West Pilbara	11,606,609	0.2	86.2	13.6	0.0
Western Australia - Outback (South)	137,203,257	0.1	85.6	7.7	6.6
Esperance	5,566,066	0.2	69.9	24.4	5.6
Gascoyne	13,506,408	0.0	90.0	6.0	3.9
Goldfields	71,451,308	0.0	77.5	11.3	11.2
Mid West	46,679,475	0.1	98.6	0.8	0.6
Tasmania	6,801,750	1.7	27.3	56.0	14.9
Greater Hobart	169,536	20.8	25.7	22.0	31.4
Rest of Tasmania	6,632,214	1.3	27.4	56.9	14.5
Launceston and North East	1,997,534	1.8	52.7	35.6	10.0
South East	2,382,202	1.1	17.9	58.1	22.9
West and North West	2,252,479	1.0	15.0	74.6	9.5
Northern Territory	134,809,433	0.4	51.9	7.7	40.0
Greater Darwin	316,391	38.7	26.5	14.0	20.8
Rest of Northern Territory	134,493,042	0.3	51.9	7.7	40.1
Northern Territory - Outback	134,493,042	0.3	51.9	7.7	40.1
Alice Springs	56,956,473	0.2	41.9	9.0	48.9
Barkly	30,321,398	0.0	71.0	0.0	29.0
Daly - Tiwi - West Arnhem	11,229,485	0.4	23.5	19.2	56.8
East Arnhem	3,360,659	0.4	0.0	2.5	97.0
Katherine	32,625,027	0.7	66.9	9.1	23.3
Australian Capital Territory	235,817	10.3	18.5	69.3	1.9
Australian Capital Cities	5,509,616	20.2	36.1	31.2	12.5
Australian Rest of States	763,302,980	0.3	76.8	8.2	14.6

#### Land area and land use by sub-state region (continued)

Source: ABS 2016, Australian Statistical Geography Standard (ASGS), Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001)

Sub-state regions are SA4 (2016 ASGS), italicised regions are SA3 (2016 ASGS).

Rest of Australia includes other territories.

Data has been sourced from ASGS meshblock land use classifications. This is different from Yearbook 2016, where land use was sourced from ABS, National Regional Profile, 2007 to 2011 (cat. no. 1379.0.55.001).