

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 programmes across the regions of Australia.

Transport and Infrastructure			
Moving People		Communication and Utilities	
Transport mode for journey to work	p. 238	Dwellings with an internet connection	p. 261
Passengers through airports	p. 247	Residential electricity supply	p. 267
Dwellings with no motor vehicle	p. 251	Residential water supply	p. 272
Kilometres travelled by passenger vehicles	p. 256	Land Use	
Network delay due to congestion	p. 257	Land area and land use	p. 273
Moving Freight			
Road freight activity	p. 258		
Volume of freight through ports	p. 259		

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 main mode used by commuters. Modes have been classified as:

- public transport (e.g. bus, train or ferry);
- private vehicle (e.g. car, truck or motorcycle);
- active travel (e.g. bicycle or walking); and,
- working from home.⁶⁶

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

Remoteness Class	Public per cent	Private per cent	Active per cent	Other per cent	Work from home per cent
2006					
Major Cities	14.2	76.3	4.8	0.5	4.2
Inner Regional	2.0	83.6	6.3	0.7	7.4
Outer Regional	1.8	78.8	8.5	1.4	9.5
Remote	3.1	71.5	12.9	1.9	10.6
Very Remote	4.7	51.8	31.2	2.6	9.7
AUSTRALIA	10.7	77.5	5.7	0.7	5.4
2011					
Major Cities	15.7	74.6	4.8	0.6	4.1
Inner Regional	2.6	84.8	5.3	0.8	6.5
Outer Regional	2.1	81.2	7.2	1.3	8.2
Remote	4.2	74.1	11.2	1.7	8.7
Very Remote	9.3	53.1	26.1	4.0	7.5
AUSTRALIA	12.1	76.8	5.4	0.7	5.0

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

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

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

Active travel includes bicycle and walking.

⁶⁶ BITRE, Research Report 132, Population growth, jobs growth and commuting flows in Sydney, 2012.

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 home
	per cent	per cent	per cent	per cent	per cent
2006					
Greater Sydney	21.0	68.8	5.3	0.5	4.4
Greater Melbourne	13.8	76.9	4.7	0.4	4.2
Greater Brisbane	13.4	77.0	4.5	0.4	4.6
Greater Perth	10.1	81.1	3.6	1.1	4.1
Greater Adelaide	9.7	81.4	4.6	0.6	3.7
Gold Coast - Tweed Heads	3.4	85.4	4.4	0.6	6.1
Newcastle - Maitland	3.6	87.9	4.5	0.3	3.7
Canberra - Queanbeyan	7.5	82.0	6.8	0.4	3.2
Sunshine Coast	2.3	84.2	5.0	0.6	7.9
Wollongong	6.5	85.6	4.2	0.3	3.3
Greater Hobart	6.7	80.6	8.4	0.5	3.9
Geelong	5.2	86.0	5.2	0.3	3.4
Townsville	2.6	85.9	7.2	1.6	2.7
Cairns	3.2	84.5	7.1	1.3	3.9
Greater Darwin	4.9	82.0	8.7	1.5	3.0
Toowoomba	1.5	88.1	6.1	0.5	3.8
Ballarat	2.2	87.5	6.1	0.3	3.8
Bendigo	1.5	87.3	6.7	0.4	4.1
Albury - Wodonga	1.0	88.2	7.0	0.4	3.4
Launceston	2.4	86.7	7.1	0.5	3.3
2011					
Greater Sydney	22.7	67.0	5.4	0.5	4.4
Greater Melbourne	16.0	74.6	4.8	0.5	4.1
Greater Brisbane	14.8	75.4	4.7	0.6	4.6
Greater Perth	12.4	78.5	3.9	1.3	3.9
Greater Adelaide	10.0	81.4	4.1	0.7	3.7
Gold Coast - Tweed Heads	4.4	84.6	4.2	0.7	6.0
Newcastle - Maitland	3.7	88.5	4.0	0.4	3.4
Canberra - Queanbeyan	7.4	82.0	7.1	0.5	3.0
Sunshine Coast	2.4	84.1	4.6	0.9	7.9
Wollongong	6.8	85.6	4.0	0.4	3.3
Greater Hobart	6.7	81.2	7.4	0.6	4.1
Geelong	6.5	85.1	4.7	0.4	3.3
Townsville	2.6	88.2	5.5	1.1	2.6
Cairns	3.1	84.6	6.6	1.4	4.2
Greater Darwin	4.9	82.3	8.5	1.4	3.0
Toowoomba	1.3	89.2	5.3	0.6	3.6
Ballarat	4.0	86.9	4.9	0.5	3.7
Bendigo	2.7	87.9	5.3	0.4	3.7
Albury - Wodonga	1.3	89.3	5.7	0.6	3.1
Launceston	2.7	87.0	6.3	0.6	3.5

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

The major urban areas of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart and Darwin are based on Greater Capital City Statistical Areas. All other major urban areas are based on Significant Urban Areas.

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

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

Active travel includes bicycle and walking.

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

Sub-State Region	Public per cent	Private per cent	Active per cent	Other per cent	Work from home per cent
2006					
New South Wales					
Greater Sydney	21.0	68.8	5.3	0.5	4.4
Central Coast	10.5	81.0	2.9	0.4	5.3
Sydney - Baulkham Hills and Hawkesbury	9.9	80.6	2.0	0.4	7.1
Sydney - Blacktown	17.7	77.4	2.1	0.4	2.3
Sydney - City and Inner South	33.0	40.8	21.5	0.9	3.8
Sydney - Eastern Suburbs	30.9	53.9	9.0	0.7	5.6
Sydney - Inner South West	24.1	69.3	3.5	0.4	2.7
Sydney - Inner West	31.7	58.0	5.6	0.4	4.3
Sydney - North Sydney and Hornsby	30.1	55.3	7.3	0.5	6.9
Sydney - Northern Beaches	17.3	70.5	4.9	0.5	6.8
Sydney - Outer South West	14.4	80.0	2.0	0.4	3.3
Sydney - Outer West and Blue Mountains	11.5	80.5	3.2	0.5	4.3
Sydney - Parramatta	21.9	70.7	4.2	0.4	2.7
Sydney - Ryde	23.7	66.9	4.1	0.4	4.9
Sydney - South West	13.4	80.2	2.7	0.6	3.0
Sydney - Sutherland	15.6	76.6	3.1	0.4	4.3
Rest of New South Wales	2.0	83.3	6.5	0.7	7.5
Capital Region	1.3	83.0	6.7	0.8	8.2
Central West	1.0	80.8	7.8	0.9	9.5
Coffs Harbour - Grafton	0.8	83.2	7.4	0.7	7.9
Far West and Orana	0.9	77.5	10.0	1.3	10.2
Hunter Valley exc Newcastle	1.6	87.5	4.5	0.5	5.9
Illawarra	6.4	85.5	4.2	0.4	3.6
Mid North Coast	0.7	84.0	6.6	0.7	8.1
Murray	0.7	79.9	8.7	0.9	9.9
New England and North West	0.8	78.3	8.2	1.1	11.6
Newcastle and Lake Macquarie	3.9	87.3	4.8	0.3	3.7
Richmond - Tweed	1.1	83.4	6.2	0.6	8.7
Riverina	0.8	80.8	8.3	1.4	8.7
Southern Highlands and Shoalhaven	1.5	84.0	5.4	0.8	8.3
Victoria					
Greater Melbourne	13.8	76.9	4.7	0.4	4.2
Melbourne - Inner	26.8	52.5	15.9	0.4	4.4
Melbourne - Inner East	17.6	72.2	4.2	0.4	5.6
Melbourne - Inner South	16.8	73.3	4.2	0.4	5.3
Melbourne - North East	12.0	81.3	2.7	0.4	3.6
Melbourne - North West	10.5	84.1	2.1	0.5	2.9
Melbourne - Outer East	8.7	84.0	2.3	0.3	4.7
Melbourne - South East	9.8	83.7	2.3	0.4	3.8
Melbourne - West	12.6	82.0	2.4	0.4	2.6
Mornington Peninsula	4.8	86.3	3.0	0.5	5.4

(continued)

Transport mode shares for journey to work by sub-state region (continued)

<i>Sub-State Region</i>	<i>Public</i>	<i>Private</i>	<i>Active</i>	<i>Other</i>	<i>Work from home</i>
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
	2006				
Rest of Victoria	1.7	81.5	7.4	0.7	8.7
Ballarat	2.0	85.2	5.8	0.5	6.5
Bendigo	1.9	83.4	6.9	0.5	7.3
Geelong	4.3	85.7	4.9	0.3	4.7
Hume	1.0	80.2	8.9	0.8	9.1
Latrobe - Gippsland	1.1	82.4	6.5	0.9	9.0
North West	0.7	76.5	10.0	1.2	11.7
Shepparton	0.4	79.4	9.0	0.8	10.4
Warrnambool and South West	0.4	76.4	9.2	0.9	13.1
Queensland					
Greater Brisbane	13.4	77.0	4.5	0.4	4.6
Brisbane - East	9.8	81.7	3.0	0.5	5.0
Brisbane - North	16.9	75.2	3.6	0.4	3.9
Brisbane - South	17.4	74.2	3.7	0.3	4.4
Brisbane - West	18.1	70.8	5.1	0.4	5.6
Brisbane Inner City	22.0	59.8	12.9	0.4	4.8
Ipswich	8.0	83.9	3.1	0.5	4.5
Logan - Beaudesert	6.8	86.2	2.2	0.5	4.3
Moreton Bay - North	7.4	83.5	3.5	0.6	5.0
Moreton Bay - South	12.2	80.7	2.2	0.5	4.5
Rest of Queensland	2.5	82.3	7.1	1.0	7.0
Cairns	2.7	81.7	8.5	1.3	5.9
Darling Downs - Maranoa	0.8	72.8	9.4	1.3	15.7
Fitzroy	2.7	83.3	7.1	0.8	6.1
Gold Coast	3.5	85.1	4.5	0.6	6.3
Mackay	3.3	82.1	7.5	1.2	6.0
Queensland - Outback	2.1	61.2	24.0	2.6	10.0
<i>Far North</i>	1.7	48.6	38.5	3.1	8.2
<i>Outback - North</i>	3.7	71.4	15.9	2.4	6.5
<i>Outback - South</i>	0.2	61.7	18.4	2.4	17.3
Sunshine Coast	2.3	83.7	4.9	0.7	8.4
Toowoomba	1.2	88.1	5.6	0.6	4.5
Townsville	2.8	83.9	7.4	1.6	4.3
Wide Bay	1.3	82.8	7.0	0.8	8.1
South Australia					
Greater Adelaide	9.7	81.4	4.6	0.6	3.7
Adelaide - Central and Hills	9.5	76.5	7.9	0.6	5.4
Adelaide - North	9.4	84.8	2.4	0.7	2.7
Adelaide - South	9.7	82.2	3.6	0.6	3.7
Adelaide - West	10.4	80.7	5.5	0.5	2.9

(continued)

Transport mode shares for journey to work by sub-state region (continued)

Sub-State Region	Public	Private	Active	Other	Work from home
	per cent	per cent	per cent	per cent	per cent
	2006				
Rest of South Australia	1.0	78.6	8.9	1.2	10.4
Barossa - Yorke - Mid North	0.7	76.4	9.2	1.4	12.3
South Australia - Outback	2.1	78.1	11.5	1.0	7.4
<i>Eyre Peninsula and South West</i>	1.5	79.3	9.4	1.0	8.9
<i>Outback - North and East</i>	3.3	75.5	15.7	1.0	4.4
South Australia - South East	0.6	80.0	7.5	1.2	10.7
Western Australia					
Greater Perth	10.1	81.1	3.6	1.1	4.1
Mandurah	3.0	87.3	3.2	1.5	5.1
Perth - Inner	14.2	68.3	10.8	0.8	6.0
Perth - North East	9.4	82.6	2.9	1.1	4.0
Perth - North West	10.6	82.3	2.2	1.0	3.8
Perth - South East	10.6	81.5	3.2	1.0	3.8
Perth - South West	8.1	83.0	3.3	1.7	3.8
Rest of Western Australia	3.2	76.4	10.0	1.7	8.6
Bunbury	1.7	85.0	5.1	0.9	7.3
Western Australia - Outback	5.7	73.1	13.9	1.9	5.4
<i>Esperance</i>	2.9	74.0	9.2	1.8	12.2
<i>Gascoyne</i>	3.2	63.2	22.3	2.7	8.6
<i>Goldfields</i>	6.7	78.6	11.0	1.3	2.4
<i>Kimberley</i>	3.3	58.7	29.5	3.1	5.4
<i>Mid West</i>	2.4	78.2	9.1	2.2	8.2
<i>Pilbara</i>	11.4	74.1	11.2	1.3	1.9
Western Australia - Wheat Belt	1.2	71.6	9.8	2.4	15.0
Tasmania					
Greater Hobart	6.7	80.6	8.4	0.5	3.9
Rest of Tasmania	1.4	84.2	6.8	0.9	6.8
Launceston and North East	1.7	84.6	7.0	0.7	6.0
South East	1.5	79.3	6.3	1.2	11.7
West and North West	1.0	85.1	6.6	1.0	6.3
Northern Territory					
Greater Darwin	4.9	82.0	8.7	1.5	3.0
Northern Territory - Outback	5.1	58.8	30.3	1.5	4.3
<i>Alice Springs</i>	4.5	69.8	20.8	1.1	3.8
<i>Barkly</i>	2.9	47.8	40.3	3.6	5.4
<i>Daly - Tiwi - West Arnhem</i>	5.7	37.3	48.8	1.6	6.6
<i>East Arnhem</i>	12.7	48.5	35.0	1.2	2.5
<i>Katherine</i>	1.5	57.1	34.4	2.0	5.0
Australian Capital Territory	8.0	80.9	7.3	0.4	3.4

(continued)

Transport mode shares for journey to work by sub-state region (continued)

Sub-State Region	Public	Private	Active	Other	Work from home
	per cent	per cent	per cent	per cent	per cent
2011					
New South Wales					
Greater Sydney	22.7	67.0	5.4	0.5	4.4
Central Coast	10.5	81.3	2.5	0.5	5.2
Sydney - Baulkham Hills and Hawkesbury	12.8	78.1	1.8	0.5	6.8
Sydney - Blacktown	19.8	75.6	1.8	0.4	2.3
Sydney - City and Inner South	34.8	36.8	23.6	0.7	4.0
Sydney - Eastern Suburbs	31.4	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	33.6	55.8	5.6	0.5	4.5
Sydney - North Sydney and Hornsby	32.3	52.9	7.3	0.5	6.9
Sydney - Northern Beaches	18.7	68.6	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	27.3	63.2	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	1.4	84.8	5.6	0.8	7.3
Central West	1.4	83.4	6.2	0.9	8.2
Coffs Harbour - Grafton	1.0	84.6	6.4	0.7	7.2
Far West and Orana	1.2	80.6	8.4	1.0	8.9
Hunter Valley exc Newcastle	1.8	89.0	3.8	0.6	4.9
Illawarra	6.6	85.5	4.0	0.4	3.4
Mid North Coast	1.0	85.3	5.6	0.7	7.4
Murray	1.0	82.9	6.8	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	1.4	83.5	5.9	0.8	8.3
Riverina	0.9	83.6	7.1	1.2	7.3
Southern Highlands and Shoalhaven	1.9	84.9	5.0	0.7	7.4
Victoria					
Greater Melbourne	16.0	74.6	4.8	0.5	4.1
Melbourne - Inner	29.9	47.7	17.2	0.6	4.6
Melbourne - Inner East	20.1	69.3	4.4	0.5	5.7
Melbourne - Inner South	19.2	70.9	4.1	0.4	5.4
Melbourne - North East	14.1	79.2	2.7	0.5	3.6
Melbourne - North West	12.6	82.0	1.9	0.5	3.0
Melbourne - Outer East	10.0	83.0	2.0	0.4	4.6
Melbourne - South East	11.6	82.4	2.0	0.5	3.5
Melbourne - West	15.1	79.4	2.3	0.5	2.7
Mornington Peninsula	5.4	86.1	2.9	0.6	5.1

(continued)

Transport mode shares for journey to work by sub-state region (continued)

<i>Sub-State Region</i>	<i>Public</i>	<i>Private</i>	<i>Active</i>	<i>Other</i>	<i>Work from home</i>
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
	2011				
Rest of Victoria	2.7	83.1	6.2	0.8	7.3
Ballarat	3.6	85.0	4.8	0.6	5.9
Bendigo	3.7	83.8	5.5	0.5	6.5
Geelong	5.6	84.9	4.4	0.5	4.6
Hume	1.7	81.8	7.6	0.9	8.1
Latrobe - Gippsland	2.0	83.7	5.6	1.0	7.7
North West	1.0	80.2	8.2	1.2	9.3
Shepparton	0.8	83.8	6.7	0.7	8.0
Warrnambool and South West	0.9	79.5	7.9	1.0	10.6
Queensland					
Greater Brisbane	14.8	75.4	4.7	0.6	4.6
Brisbane - East	10.7	81.0	2.5	0.6	5.1
Brisbane - North	19.0	73.0	3.7	0.5	3.8
Brisbane - South	19.5	71.6	4.2	0.5	4.2
Brisbane - West	19.8	67.9	5.8	0.5	5.9
Brisbane Inner City	23.7	56.5	14.2	0.6	4.9
Ipswich	8.9	83.7	2.7	0.6	4.1
Logan - Beaudesert	7.9	85.5	2.0	0.6	4.0
Moreton Bay - North	8.3	83.0	3.2	0.7	4.8
Moreton Bay - South	12.8	79.9	2.0	0.5	4.7
Rest of Queensland	3.0	83.4	6.1	1.0	6.5
Cairns	2.8	82.7	7.3	1.4	5.8
Darling Downs - Maranoa	0.8	76.7	8.3	1.2	13.0
Fitzroy	3.6	84.6	5.6	0.8	5.4
Gold Coast	4.6	84.3	4.2	0.7	6.2
Mackay	4.0	83.2	6.5	1.2	5.1
Queensland - Outback	2.6	65.3	20.5	2.3	9.3
<i>Far North</i>	3.2	54.2	31.9	2.1	8.5
<i>Outback - North</i>	3.4	74.3	14.3	2.4	5.6
<i>Outback - South</i>	0.8	63.8	17.2	2.4	15.8
Sunshine Coast	2.6	83.6	4.6	0.9	8.3
Toowoomba	1.2	89.1	4.8	0.6	4.3
Townsville	2.9	86.2	6.0	1.2	3.8
Wide Bay	1.6	84.3	5.8	1.0	7.3
South Australia					
Greater Adelaide	10.0	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	82.7	3.2	0.8	3.8
Adelaide - West	11.6	80.3	4.4	0.7	3.0

(continued)

Transport mode shares for journey to work by sub-state region (continued)

<i>Sub-State Region</i>	<i>Public</i>	<i>Private</i>	<i>Active</i>	<i>Other</i>	<i>Work from home</i>
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
2011					
Rest of South Australia	1.4	81.3	7.3	1.2	8.8
Barossa - Yorke - Mid North	0.9	80.2	7.3	1.3	10.3
South Australia - Outback	3.2	79.5	9.5	1.4	6.3
<i>Eyre Peninsula and South West</i>	2.3	81.4	7.6	1.1	7.6
<i>Outback - North and East</i>	5.1	75.9	13.4	1.8	3.8
South Australia - South East	0.8	82.7	6.3	1.1	9.1
Western Australia					
Greater Perth	12.4	78.5	3.9	1.3	3.9
Mandurah	8.4	81.8	3.2	2.0	4.5
Perth - Inner	17.8	63.6	12.2	1.0	5.4
Perth - North East	10.4	81.6	3.0	1.2	3.8
Perth - North West	12.1	80.3	2.5	1.2	3.9
Perth - South East	12.6	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	3.6	84.0	4.8	1.2	6.4
Western Australia - Outback	9.5	72.0	11.4	3.0	4.1
<i>Esperance</i>	3.4	77.4	7.2	1.8	10.2
<i>Gascoyne</i>	3.6	66.0	18.7	2.3	9.4
<i>Goldfields</i>	7.4	79.7	9.1	2.0	1.9
<i>Kimberley</i>	3.9	65.8	23.3	2.5	4.5
<i>Mid West</i>	4.1	78.3	8.3	2.9	6.4
<i>Pilbara</i>	19.6	64.8	10.0	4.2	1.5
Western Australia - Wheat Belt	2.3	74.3	8.6	2.3	12.6
Tasmania					
Greater Hobart	6.7	81.2	7.4	0.6	4.1
Rest of Tasmania	1.8	85.5	5.8	0.9	6.1
Launceston and North East	2.0	85.5	6.1	0.7	5.7
South East	2.2	81.7	5.3	1.1	9.8
West and North West	1.3	86.6	5.7	0.9	5.5
Northern Territory					
Greater Darwin	4.9	82.3	8.5	1.4	3.0
Northern Territory - Outback	4.7	62.7	27.8	1.4	3.3
<i>Alice Springs</i>	4.2	73.0	18.7	1.3	2.8
<i>Barkly</i>	0.9	55.2	37.3	2.3	4.2
<i>Daly - Tiwi - West Arnhem</i>	6.8	43.3	44.3	1.5	4.1
<i>East Arnhem</i>	9.7	51.9	35.1	1.5	1.8
<i>Katherine</i>	2.0	62.8	29.2	1.4	4.7
Australian Capital Territory	7.9	81.1	7.4	0.5	3.1

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

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

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

Active travel includes bicycle and walking.

Table C 2.1.1.d Transport mode shares for journey to work by capital city/balance of state

<i>Capital City / Balance of State</i>	<i>Public</i>	<i>Private</i>	<i>Active</i>	<i>Other</i>	<i>Work from home</i>
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
2006					
Greater Sydney	21.0	68.8	5.3	0.5	4.4
Rest of New South Wales	2.0	83.3	6.5	0.7	7.5
Greater Melbourne	13.8	76.9	4.7	0.4	4.2
Rest of Victoria	1.7	81.5	7.4	0.7	8.7
Greater Brisbane	13.4	77.0	4.5	0.4	4.6
Rest of Queensland	2.5	82.3	7.1	1.0	7.0
Greater Adelaide	9.7	81.4	4.6	0.6	3.7
Rest of South Australia	1.0	78.6	8.9	1.2	10.4
Greater Perth	10.1	81.1	3.6	1.1	4.1
Rest of Western Australia	3.2	76.4	10.0	1.7	8.6
Greater Hobart	6.7	80.6	8.4	0.5	3.9
Rest of Tasmania	1.4	84.2	6.8	0.9	6.8
Greater Darwin	4.9	82.0	8.7	1.5	3.0
Rest of Northern Territory	5.1	58.8	30.3	1.5	4.3
Australian Capital Territory	8.0	80.9	7.3	0.4	3.4
2011					
Greater Sydney	22.7	67.0	5.4	0.5	4.4
Rest of New South Wales	2.3	84.9	5.5	0.7	6.6
Greater Melbourne	16.0	74.6	4.8	0.5	4.1
Rest of Victoria	2.7	83.1	6.2	0.8	7.3
Greater Brisbane	14.8	75.4	4.7	0.6	4.6
Rest of Queensland	3.0	83.4	6.1	1.0	6.5
Greater Adelaide	10.0	81.4	4.1	0.7	3.7
Rest of South Australia	1.4	81.3	7.3	1.2	8.8
Greater Perth	12.4	78.5	3.9	1.3	3.9
Rest of Western Australia	5.9	76.2	8.7	2.3	6.9
Greater Hobart	6.7	81.2	7.4	0.6	4.1
Rest of Tasmania	1.8	85.5	5.8	0.9	6.1
Greater Darwin	4.9	82.3	8.5	1.4	3.0
Rest of Northern Territory	4.7	62.7	27.8	1.4	3.3
Australian Capital Territory	7.9	81.1	7.4	0.5	3.1

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

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




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

Active travel includes bicycle and walking.

C 2.1.2 Passengers through airports

This indicator provides a measure of how many people are travelling through airports within a region, including both domestic and international travellers. Data reflects passengers travelling on regular public transport (RPT) services including both arrivals and departures. In this context, public transport refers to commercial airline services. Many regions are excluded as no airport that offers RPT services is available.















Table C 2.1.2.a Number of passengers through airports by remoteness class

Remoteness Class	2010	2012	2014	2010-2014	Trend
	passengers ('000)	passengers ('000)	passengers ('000)	change passengers ('000)	
Major Cities	110,125	116,253	122,200	12,075	
Inner Regional	8,425	8,862	9,111	686	
Outer Regional	8,705	9,753	10,067	1,362	
Remote	3,271	3,593	3,494	224	
Very Remote	1,274	1,657	1,468	194	
AUSTRALIA	131,800	140,118	146,341	14,540	

Source: BITRE Airport Traffic Data (https://bitre.gov.au/publications/ongoing/airport_traffic_data.aspx)

Regular public transport operations (excluding trips to and from Norfolk Island).

Table C 2.1.2.b Number of passengers through airports by major urban area

Major Urban Area	2010	2012	2014	2010-2014	Trend
	passengers ('000)	passengers ('000)	passengers ('000)	change passengers ('000)	
Greater Sydney	35,650	37,008	38,733	3,083	
Greater Melbourne	27,426	28,946	31,411	3,985	
Greater Brisbane	19,620	21,073	21,948	2,328	
Greater Perth	10,454	12,618	12,896	2,442	
Greater Adelaide	7,291	7,067	7,699	409	
Gold Coast - Tweed Heads	5,517	5,679	5,829	312	
Canberra - Queanbeyan	3,304	3,066	2,812	-492	
Sunshine Coast	864	795	872	9	
Greater Hobart	1,882	1,919	2,128	246	
Townsville	1,590	1,610	1,498	-92	
Cairns	3,750	4,081	4,319	569	
Greater Darwin	1,643	1,941	2,079	436	
Toowoomba	1	11	20	18	
Albury - Wodonga	292	277	248	-44	

Source: BITRE Airport Traffic Data (https://bitre.gov.au/publications/ongoing/airport_traffic_data.aspx)

The major urban areas of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart and Darwin are based on Greater Capital City Statistical Areas. All other major urban areas are based on Significant Urban Areas.

Regular public transport operations (excluding trips to and from Norfolk Island).

Table C 2.1.2.c Number of passengers through airports by sub-state region

Sub-State Region	2010 passengers ('000)	2012 passengers ('000)	2014 passengers ('000)	2010-2014 change passengers ('000)	Trend
New South Wales					
Sydney - City and Inner South	35,650	37,008	38,733	3,083	
Capital Region	73	69	68	-5	
Central West	114	112	93	-21	
Coffs Harbour - Grafton	356	357	374	17	
Far West and Orana	241	238	249	8	
Hunter Valley exc Newcastle	1,186	1,184	1,169	-17	
Mid North Coast	275	282	280	4	
Murray	292	277	248	-44	
New England and North West	283	293	311	28	
Richmond - Tweed	321	386	445	123	
Riverina	297	286	285	-12	
Victoria					
Melbourne - Inner South	10	10	10	0	
Melbourne - North West	27,416	28,936	31,402	3,985	
North West	208	210	214	6	
Queensland					
Brisbane - North	19,620	21,073	21,948	2,328	
Cairns	3,750	4,081	4,319	569	
Darling Downs - Maranoa	52	130	240	188	
Fitzroy	1,136	1,457	1,387	250	
Gold Coast	5,517	5,679	5,829	312	
Mackay	1,698	1,934	1,898	199	
Queensland - Outback	431	504	482	51	
Far North	162	186	175	14	
Outback - North	224	272	258	34	
Outback - South	45	46	49	4	
Sunshine Coast	864	795	872	9	
Toowoomba	1	11	20	18	
Townsville	1,614	1,638	1,522	-92	
Wide Bay	276	275	316	40	
South Australia					
Adelaide - West	7,291	7,067	7,699	409	
South Australia - Outback	367	408	367	0	
Eyre Peninsula and South West	282	293	273	-9	
Outback - North and East	85	116	94	9	
South Australia - South East	150	126	114	-35	
Western Australia					
Perth - South East	10,454	12,618	12,896	2,442	
Western Australia - Outback	2,350	3,160	2,834	484	
Esperance	46	46	54	8	
Gascoyne	76	118	109	32	

(continued)

Number of passengers through airports by sub-state region (continued)

Sub-State Region	2010 passengers (‘000)	2012 passengers (‘000)	2014 passengers (‘000)	2010-2014 change passengers (‘000)	Trend
<i>Goldfields</i>	249	283	239	-10	
<i>Kimberley</i>	524	548	511	-13	
<i>Mid West</i>	103	138	126	22	
<i>Pilbara</i>	1,351	2,026	1,796	445	
Western Australia - Wheat Belt	54	59	60	6	
Tasmania					
Hobart	1,882	1,919	2,128	246	
Launceston and North East	1,177	1,192	1,309	132	
West and North West	244	238	232	-12	
Northern Territory					
Darwin	1,643	1,941	2,079	436	
Northern Territory - Outback	1,154	1,045	1,037	-117	
<i>Alice Springs</i>	963	865	896	-66	
<i>Daly - Tiwi - West Arnhem</i>	40	33	27	-13	
<i>East Arnhem</i>	151	147	113	-37	
Australian Capital Territory	3,304	3,066	2,812	-492	

Source: BITRE Airport Traffic Data (https://bitre.gov.au/publications/ongoing/airport_traffic_data.aspx)

Regular public transport operations (excluding trips to and from Norfolk Island).

Table C 2.1.2.d Number of passengers through airports by capital city/balance of state

Capital City / Balance of State	2010 passengers (‘000)	2012 passengers (‘000)	2014 passengers (‘000)	2010-2014 change passengers (‘000)	Trend
Greater Sydney	35,650	37,008	38,733	3,083	
Rest of New South Wales	3,438	3,484	3,521	83	
Greater Melbourne	27,426	28,946	31,411	3,985	
Rest of Victoria	222	219	221	-1	
Greater Brisbane	19,620	21,073	21,948	2,328	
Rest of Queensland	15,340	16,503	16,884	1,544	
Greater Adelaide	7,291	7,067	7,699	409	
Rest of South Australia	516	535	481	-35	
Greater Perth	10,454	12,618	12,896	2,442	
Rest of Western Australia	2,404	3,220	2,907	503	
Greater Hobart	1,882	1,919	2,128	246	
Rest of Tasmania	1,421	1,430	1,541	120	
Greater Darwin	1,643	1,941	2,079	436	
Rest of Northern Territory	1,154	1,045	1,037	-117	
Australian Capital Territory	3,304	3,066	2,812	-492	

Source: BITRE Airport Traffic Data (https://bitre.gov.au/publications/ongoing/airport_traffic_data.aspx)

Regular public transport operations (excluding trips to and from Norfolk Island).

C 2.1.3 Dwellings with no motor vehicle

This indicator measures the proportion of dwellings with no motor vehicle (other than a motorcycle 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 and active travel (i.e. bicycle and footpath infrastructure) for travel.

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

Remoteness Class	2006 per cent	2011 per cent	2006–2011 change percentage points
Major Cities	10.0	9.2	-0.8
Inner Regional	7.2	6.3	-0.9
Outer Regional	7.2	6.4	-0.7
Remote	7.6	7.2	-0.4
Very Remote	17.1	15.7	-1.4
AUSTRALIA	9.2	8.4	-0.8

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

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

Table C 2.1.3.b Dwellings with no motor vehicle by major urban area

Major Urban Area	2006 per cent	2011 per cent	2006–2011 change percentage points
Greater Sydney	12.6	11.8	-0.9
Greater Melbourne	9.4	9.0	-0.4
Greater Brisbane	8.4	7.7	-0.8
Greater Perth	6.8	6.0	-0.7
Greater Adelaide	10.1	9.2	-0.9
Gold Coast - Tweed Heads	7.6	6.4	-1.1
Newcastle - Maitland	10.8	8.7	-2.1
Canberra - Queanbeyan	6.9	6.2	-0.8
Sunshine Coast	7.1	6.0	-1.2
Wollongong	11.4	10.0	-1.4
Greater Hobart	9.8	8.9	-0.8
Geelong	9.0	8.0	-1.0
Townsville	7.1	6.1	-1.0
Cairns	9.8	8.7	-1.0
Greater Darwin	7.2	6.5	-0.7
Toowoomba	8.8	8.4	-0.5
Ballarat	8.9	7.8	-1.1
Bendigo	8.5	7.4	-1.1
Albury - Wodonga	8.9	8.1	-0.7
Launceston	10.0	9.4	-0.6

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

The major urban areas of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart and Darwin are based on Greater Capital City Statistical Areas. All other major urban areas are based on Significant Urban Areas.

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

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

Sub-State Region	2006 per cent	2011 per cent	2006–2011 change percentage points
New South Wales			
Greater Sydney	12.6	11.8	-0.9
Central Coast	10.3	9.4	-0.9
Sydney - Baulkham Hills and Hawkesbury	2.8	2.7	-0.1
Sydney - Blacktown	10.7	9.5	-1.3
Sydney - City and Inner South	26.8	34.0	7.3
Sydney - Eastern Suburbs	18.0	19.4	1.4
Sydney - Inner South West	14.2	13.5	-0.7
Sydney - Inner West	15.7	15.5	-0.1
Sydney - North Sydney and Hornsby	11.0	11.0	0.1
Sydney - Northern Beaches	8.6	8.1	-0.5
Sydney - Outer South West	8.5	7.3	-1.2
Sydney - Outer West and Blue Mountains	8.8	7.9	-0.9
Sydney - Parramatta	14.3	13.5	-0.8
Sydney - Ryde	11.1	11.4	0.3
Sydney - South West	11.0	10.8	-0.2
Sydney - Sutherland	7.6	6.9	-0.6
Rest of New South Wales	8.9	7.6	-1.4
Capital Region	6.7	6.2	-0.5
Central West	9.1	7.9	-1.1
Coffs Harbour - Grafton	8.5	7.8	-0.7
Far West and Orana	10.8	10.1	-0.7
Hunter Valley exc Newcastle	7.4	6.2	-1.2
Illawarra	11.1	10.4	-0.7
Mid North Coast	8.9	8.1	-0.8
Murray	7.7	8.0	0.2
New England and North West	8.8	8.1	-0.7
Newcastle and Lake Macquarie	11.0	9.4	-1.6
Richmond - Tweed	8.5	7.9	-0.6
Riverina	8.0	7.5	-0.5
Southern Highlands and Shoalhaven	6.9	6.3	-0.6
Victoria			
Greater Melbourne	9.4	9.0	-0.4
Melbourne - Inner	20.1	23.4	3.3
Melbourne - Inner East	8.0	8.2	0.3
Melbourne - Inner South	9.4	9.0	-0.4
Melbourne - North East	7.6	7.4	-0.3
Melbourne - North West	7.2	7.1	-0.1
Melbourne - Outer East	5.1	4.9	-0.2
Melbourne - South East	6.7	6.6	-0.1
Melbourne - West	8.6	8.0	-0.6
Mornington Peninsula	6.6	6.2	-0.4

(continued)

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

<i>Sub-State Region</i>	<i>2006 per cent</i>	<i>2011 per cent</i>	<i>2006–2011 change percentage points</i>
Rest of Victoria	7.0	6.4	-0.6
Ballarat	7.4	6.9	-0.4
Bendigo	7.3	6.8	-0.5
Geelong	7.5	6.9	-0.6
Hume	6.4	6.2	-0.2
Latrobe - Gippsland	6.8	6.7	-0.2
North West	7.7	8.0	0.3
Shepparton	6.5	6.9	0.4
Warrnambool and South West	6.2	6.2	-0.1
Queensland			
Greater Brisbane	8.4	7.7	-0.8
Brisbane - East	6.7	6.3	-0.4
Brisbane - North	9.7	9.2	-0.5
Brisbane - South	9.3	8.7	-0.5
Brisbane - West	7.2	7.3	0.2
Brisbane Inner City	14.5	14.9	0.4
Ipswich	7.4	6.9	-0.5
Logan - Beaudesert	6.2	6.1	-0.1
Moreton Bay - North	8.1	7.9	-0.3
Moreton Bay - South	3.8	3.7	-0.1
Rest of Queensland	7.5	6.5	-1.0
Cairns	9.4	8.8	-0.6
Darling Downs - Maranoa	6.3	5.8	-0.5
Fitzroy	6.8	6.3	-0.5
Gold Coast	7.2	6.6	-0.6
Mackay	6.2	5.6	-0.5
Queensland - Outback	13.5	14.6	1.1
<i>Far North</i>	22.4	22.2	-0.3
<i>Outback - North</i>	9.9	9.1	-0.8
<i>Outback - South</i>	8.6	7.9	-0.8
Sunshine Coast	7.2	5.9	-1.3
Toowoomba	8.2	7.8	-0.4
Townsville	8.0	6.8	-1.2
Wide Bay	7.9	7.3	-0.6
South Australia			
Greater Adelaide	10.1	9.2	-0.9
Adelaide - Central and Hills	10.9	10.3	-0.6
Adelaide - North	10.0	9.1	-0.9
Adelaide - South	9.1	8.0	-1.1
Adelaide - West	14.6	12.6	-2.0
Rest of South Australia	6.9	6.7	-0.3
Barossa - Yorke - Mid North	6.1	6.1	-0.1

(continued)

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

Sub-State Region	2006 per cent	2011 per cent	2006–2011 change percentage points
South Australia - Outback	10.8	10.2	-0.5
Eyre Peninsula and South West	9.5	8.9	-0.5
Outback - North and East	10.3	10.4	0.0
South Australia - South East	6.6	6.3	-0.4
Western Australia			
Greater Perth	6.8	6.0	-0.7
Mandurah	5.9	5.7	-0.2
Perth - Inner	12.6	11.8	-0.8
Perth - North East	7.1	6.1	-1.0
Perth - North West	6.0	5.2	-0.8
Perth - South East	7.4	6.4	-1.0
Perth - South West	6.9	6.1	-0.9
Rest of Western Australia	6.1	5.8	-0.3
Bunbury	5.1	4.8	-0.3
Western Australia - Outback	9.1	8.4	-0.6
Esperance	5.3	4.8	-0.5
Gascoyne	7.6	5.9	-1.7
Goldfields	8.0	7.3	-0.7
Kimberley	13.2	13.6	0.5
Mid West	6.6	6.0	-0.6
Pilbara	5.6	5.3	-0.3
Western Australia - Wheat Belt	5.4	5.1	-0.3
Tasmania			
Greater Hobart	9.8	8.9	-0.8
Rest of Tasmania	7.6	6.9	-0.7
Launceston and North East	8.7	8.0	-0.7
South East	4.8	4.1	-0.8
West and North West	8.3	7.4	-1.0
Northern Territory			
Greater Darwin	7.2	6.5	-0.7
Northern Territory - Outback	24.4	21.1	-3.3
Alice Springs	15.3	12.5	-2.8
Barkly	23.1	22.2	-0.9
Daly - Tiwi - West Arnhem	30.4	30.2	-0.2
East Arnhem	31.5	26.9	-4.5
Katherine	20.3	17.2	-3.1
Australian Capital Territory	7.3	6.4	-0.8

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

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

Table C 2.1.3.d Dwellings with no motor vehicle by capital city/balance of state

<i>Capital City / Balance of State</i>	<i>2006 per cent</i>	<i>2011 per cent</i>	<i>2006–2011 change percentage points</i>
Greater Sydney	12.6	11.8	-0.9
Rest of New South Wales	8.9	7.6	-1.4
Greater Melbourne	9.4	9.0	-0.4
Rest of Victoria	7.0	6.4	-0.6
Greater Brisbane	8.4	7.7	-0.8
Rest of Queensland	7.5	6.5	-1.0
Greater Adelaide	10.1	9.2	-0.9
Rest of South Australia	6.9	6.7	-0.3
Greater Perth	6.8	6.0	-0.7
Rest of Western Australia	6.1	5.8	-0.3
Greater Hobart	9.8	8.9	-0.8
Rest of Tasmania	7.6	6.9	-0.7
Greater Darwin	7.2	6.5	-0.7
Rest of Northern Territory	20.9	18.5	-2.3
Australian Capital Territory	7.3	6.4	-0.8

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

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 by the region's residents within the vehicles' state of registration. The area of operation of vehicle travel outside their state of registration is not presented in the ABS Survey of Motor Vehicle Use, but is around 4 per cent of the total in 2011–12. This measure includes passenger vehicles, motorcycles, light commercial vehicles, and buses.⁶⁷

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.

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

Capital City / Balance of State	2004–05 billion kilometres	2009–10 billion kilometres	2014–15 ^a billion kilometres	2004–05 to 2014–15 change billion kilometres	Trend
Sydney	30.3	30.4	32.1	1.7	
Rest of New South Wales	21.0	20.8	21.8	0.8	
Melbourne	29.5	29.6	31.9	2.5	
Rest of Victoria	15.2	14.9	15.6	0.4	
Brisbane	14.2	14.3	14.9	0.7	
Rest of Queensland	18.3	18.7	19.3	1.1	
Adelaide	8.5	8.1	8.4	-0.1	
Rest of South Australia	4.0	3.8	3.9	-0.1	
Perth	12.3	12.6	13.4	1.2	
Rest of Western Australia	5.1	5.2	5.5	0.4	
Hobart	1.5	1.5	1.5	-0.1	
Rest of Tasmania	2.2	2.1	2.1	-0.1	
Darwin	0.6	0.6	0.6	0.0	
Rest of Northern Territory	0.5	0.5	0.5	0.0	
Australian Capital Territory	3.0	3.0	3.2	0.2	
AUSTRALIA	166.0	166.1	174.7	8.7	

Source: BITRE, 2013, Yearbook 2013: Australian infrastructure statistics, Statistical Report, Canberra

Includes cars, motorcycles, light commercial vehicles and buses. Excludes articulated trucks, rigid and other trucks.

Based on the Statistical Divisions (SD) structure under the Australian Standard Geographical Classification (ASGC). These estimates use the SD boundaries current at the time data was collected and may vary across reference periods.

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

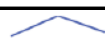



a) 2014–15 estimates are preliminary.

⁶⁷ BITRE, Research Report 127, Traffic Growth in Australia, 2012.

C 2.1.5 Network delay 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 well-being through longer travel times, and reduced accessibility.

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

	2002-03	2007-08	2012-13	2002-03 to 2012-13	
Major Urban Area	minutes per kilometre	minutes per kilometre	minutes per kilometre	change minutes per kilometre	Trend
Greater Sydney	0.77	0.92	0.80	0.03	
Greater Melbourne	0.73	0.83	0.85	0.12	
Greater Brisbane	0.78	1.00	n.a.	n.a.	
Greater Adelaide	0.44	0.59	0.76	0.32	
Greater Perth	0.66	0.85	0.86	0.20	
Australian Capital Territory	n.a.	0.96	1.27	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 Perth and Adelaide are based on 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.

This data is better suited to comparisons over time for each region, rather than between regions.

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.⁶⁸

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

Capital City / Balance of State	2003-04 billion tonne kilometres	2008-09 billion tonne kilometres	2013-14 billion tonne kilometres	2003-04 to 2013-14 change billion tonne kilometres	Trend
Sydney	10.3	11.3	12.4	2.1	
Rest of New South Wales	45.4	48.4	54.8	9.4	
Melbourne	10.3	11.6	13.1	2.8	
Rest of Victoria	23.7	27.0	30.9	7.3	
Brisbane	6.5	8.3	10.2	3.7	
Rest of Queensland	21.7	24.3	26.9	5.2	
Adelaide	2.3	2.8	3.2	0.9	
Rest of South Australia	9.7	11.3	13.2	3.5	
Perth	4.1	5.5	6.9	2.8	
Rest of Western Australia	19.0	26.0	33.5	14.5	
Hobart	0.3	0.4	0.4	0.1	
Rest of Tasmania	3.0	2.8	2.9	-0.1	
Darwin	0.2	0.3	0.3	0.1	
Rest of Northern Territory	1.1	1.3	1.5	0.4	
Australian Capital Territory	0.3	0.3	0.4	0.1	
AUSTRALIA	157.8	181.6	210.6	52.8	

Source: BITRE, 2013, Yearbook 2013: Australian infrastructure statistics, Statistical Report, Canberra

Based on the Statistical Divisions (SD) structure under the Australian Standard Geographical Classification (ASGC). These estimates use the SD boundaries current at the time data was collected and may vary across reference periods.

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

⁶⁸ BITRE, Research Report 112, Freight Measurement and Modelling in Australia, 2006

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.

Table C 2.2.2.a Volume of freight through ports by remoteness class

	2009-10	2011-12	2013-14	2009-10 to 2013-14	
Remoteness Class	tonnes (million)	tonnes (million)	tonnes (million)	change tonnes (million)	Trend
Major Cities	267.3	311.9	340.0	72.7	
Inner Regional	107.6	108.8	124.0	16.3	
Outer Regional	178.1	161.0	212.1	34.0	
Remote	277.7	350.0	509.5	231.8	
Very Remote	198.3	211.3	219.8	21.5	
AUSTRALIA	1,029.0	1,143.0	1,405.4	376.4	

Source: ABS, International cargo statistics (unpublished data), 2009-10, 2011-12 and 2013-14

Combined volume of Coastal and International weight.

The export values in this edition of Progress in Australian Regions exclude the cost of ship and aircraft stores. In particular, this removes the cost of fuelling ships and aircraft from the trade statistics. In the 2014 edition, this value was included.

Table C 2.2.2.b Volume of freight through ports by major urban area

	2009-10	2011-12	2013-14	2009-10 to 2013-14	
Major Urban Area	tonnes (million)	tonnes (million)	tonnes (million)	change tonnes (million)	Trend
Greater Sydney	27.4	28.5	26.9	-0.5	
Greater Melbourne	32.6	36.4	36.4	3.8	
Greater Brisbane	31.9	36.6	35.2	3.4	
Greater Perth	27.4	27.9	33.6	6.2	
Greater Adelaide	10.2	15.5	15.6	5.3	
Newcastle - Maitland	103.0	129.7	160.6	57.6	
Wollongong	28.0	27.4	21.2	-6.8	
Greater Hobart	2.2	1.9	1.6	-0.6	
Geelong	9.5	13.1	13.2	3.7	
Townsville	10.4	12.7	9.4	-1.0	
Cairns	1.1	0.6	0.8	-0.3	
Greater Darwin	11.7	10.9	13.5	1.8	

Source: ABS, International cargo statistics (unpublished data), 2009-10, 2011-12 and 2013-14

The major urban areas of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart and Darwin are based on Greater Capital City Statistical Areas. All other major urban areas are based on Significant Urban Areas.

Combined volume of Coastal and International weight.

Excludes regions where volume of trade through ports is zero.

Values for some ports with low volumes have been rounded to zero.

The export values in this edition of Progress in Australian Regions exclude the cost of ship and aircraft stores. In particular, this removes the cost of fuelling ships and aircraft from the trade statistics. In the 2014 edition, this value was included.

Table C 2.2.2.c Volume of freight through ports by sub-state region

Sub-State Region	2009-10 tonnes (million)	2011-12 tonnes (million)	2013-14 tonnes (million)	2009-10 to 2013-14 change tonnes (million)	Trend
New South Wales					
Sydney - City and Inner South	27.4	28.5	26.9	-0.5	
Capital Region	1.2	1.1	0.8	-0.4	
Illawarra	28.0	27.4	21.2	-6.8	
Newcastle and Lake Macquarie	103.0	129.7	160.6	57.6	
Victoria					
Melbourne - Inner	29.6	34.4	34.3	4.7	
Mornington Peninsula	3.0	2.1	2.1	-0.9	
Geelong	9.5	13.1	13.2	3.7	
Warrnambool and South West	2.8	5.2	6.1	3.3	
Queensland					
Brisbane - East	31.9	36.6	35.2	3.4	
Cairns	1.6	1.1	0.9	-0.7	
Fitzroy	83.7	84.4	98.2	14.6	
Mackay	118.7	99.2	133.5	14.8	
Queensland - Outback	21.0	25.5	31.4	10.4	
Far North	20.4	24.9	30.8	10.3	
Outback - North	0.6	0.6	0.6	0.1	
Townsville	11.0	12.7	9.4	-1.6	
South Australia					
Adelaide - West	10.2	15.5	15.6	5.3	
Barossa - Yorke - Mid North	3.3	5.1	4.2	0.9	
South Australia - Outback	13.3	15.4	21.1	7.9	
Eyre Peninsula and South West	13.3	15.4	21.1	7.9	
Western Australia					
Perth - South West	27.4	27.9	33.6	6.2	
Bunbury	13.0	13.3	15.4	2.3	
Western Australia - Outback	457.8	536.1	708.7	250.9	
Esperance	11.0	11.8	14.9	3.9	
Gascoyne	4.0	4.5	0.3	-3.7	
Kimberley	4.3	6.9	6.9	2.6	
Mid West	9.2	9.6	18.4	9.3	
Pilbara	429.5	503.4	668.3	238.8	
Western Australia - Wheat Belt	3.4	3.5	4.4	1.0	
Tasmania					
Hobart	2.2	1.9	1.6	-0.6	
Launceston and North East	3.7	2.4	3.0	-0.7	
West and North West	9.9	9.4	9.7	-0.3	
Northern Territory					
Darwin	11.7	10.9	13.5	1.8	
Northern Territory - Outback	0.3	0.5	0.5	0.2	
East Arnhem	0.3	0.5	0.5	0.2	

Source: ABS, International cargo statistics (unpublished data), 2009-10, 2011-12 and 2013-14

Combined volume of Coastal and International weight.

Excludes regions where volume of trade through ports is zero.

Values for some ports with low volumes have been rounded to zero.

The export values in this edition of Progress in Australian Regions exclude the cost of ship and aircraft stores. In particular, this removes the cost of fuelling ships and aircraft from the trade statistics. In the 2014 edition, this value was included.

C 2.3 Communication and Utilities

C 2.3.1 Dwellings with an internet connection

People living in a dwelling are classed as having access to the internet when their dwelling has an active internet connection, whether based on broadband, dial-up, or another technology. 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 characteristics of people living in the dwelling but can also be limited by 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

Remoteness Class	2006 per cent	2011 per cent	2006–2011 change percentage points
Major Cities	66.2	82.0	15.8
Inner Regional	57.3	74.9	17.6
Outer Regional	54.6	72.4	17.8
Remote	53.4	72.2	18.8
Very Remote	42.9	60.2	17.3
AUSTRALIA	63.0	79.4	16.4

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

Internet connections include broadband, dial-up, and other types of connection.

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

Major Urban Area	2006 per cent	2011 per cent	2006–2011 change percentage points
Greater Sydney	68.2	82.8	14.6
Greater Melbourne	66.0	81.9	16.0
Greater Brisbane	68.2	83.8	15.6
Greater Perth	66.7	83.0	16.3
Greater Adelaide	60.2	77.5	17.4
Gold Coast - Tweed Heads	64.6	82.6	17.9
Newcastle - Maitland	58.8	76.1	17.3
Canberra - Queanbeyan	73.9	87.2	13.2
Sunshine Coast	64.0	81.8	17.8
Wollongong	59.6	76.3	16.8
Greater Hobart	58.0	75.5	17.5
Geelong	57.5	75.7	18.2
Townsville	64.5	81.5	17.0
Cairns	64.3	81.1	16.8
Greater Darwin	64.4	83.0	18.7
Toowoomba	58.9	76.0	17.1
Ballarat	56.4	75.3	18.9
Bendigo	56.9	75.2	18.4
Albury - Wodonga	58.7	75.9	17.2
Launceston	55.7	73.1	17.4

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

The major urban areas of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart and Darwin are based on Greater Capital City Statistical Areas. All other major urban areas are based on Significant Urban Areas.

Internet connections include broadband, dial-up, and other types of connection.

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

Sub-State Region	2006 per cent	2011 per cent	2006–2011 change percentage points
New South Wales			
Greater Sydney	68.2	82.8	14.6
Central Coast	59.2	76.1	16.9
Sydney - Baulkham Hills and Hawkesbury	81.2	90.3	9.1
Sydney - Blacktown	64.2	81.3	17.1
Sydney - City and Inner South	69.4	84.9	15.5
Sydney - Eastern Suburbs	72.2	85.8	13.6
Sydney - Inner South West	61.2	77.7	16.5
Sydney - Inner West	71.2	84.6	13.3
Sydney - North Sydney and Hornsby	79.6	90.0	10.4
Sydney - Northern Beaches	74.7	86.9	12.2
Sydney - Outer South West	65.8	81.9	16.1
Sydney - Outer West and Blue Mountains	66.5	81.7	15.2
Sydney - Parramatta	63.7	80.4	16.8
Sydney - Ryde	74.4	85.7	11.3
Sydney - South West	59.9	76.8	17.0
Sydney - Sutherland	71.6	84.6	12.9
Rest of New South Wales	55.9	73.1	17.2
Capital Region	58.5	75.0	16.5
Central West	53.6	70.7	17.0
Coffs Harbour - Grafton	55.2	73.3	18.2
Far West and Orana	49.2	66.2	17.0
Hunter Valley exc Newcastle	57.8	75.7	17.9
Illawarra	59.9	76.5	16.5
Mid North Coast	51.8	69.5	17.6
Murray	54.2	71.0	16.8
New England and North West	51.4	68.5	17.1
Newcastle and Lake Macquarie	58.8	76.0	17.2
Richmond - Tweed	56.6	74.3	17.7
Riverina	54.2	70.9	16.7
Southern Highlands and Shoalhaven	58.4	74.8	16.4
Victoria			
Greater Melbourne	66.0	81.9	16.0
Melbourne - Inner	68.5	84.7	16.2
Melbourne - Inner East	72.7	85.1	12.3
Melbourne - Inner South	69.1	83.3	14.3
Melbourne - North East	63.2	80.1	16.8
Melbourne - North West	60.0	78.1	18.1
Melbourne - Outer East	69.6	84.2	14.6
Melbourne - South East	64.7	81.4	16.6
Melbourne - West	61.5	79.6	18.2
Mornington Peninsula	61.9	79.4	17.5

(continued)

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

Sub-State Region	2006 per cent	2011 per cent	2006–2011 change percentage points
Rest of Victoria	55.0	73.0	18.0
Ballarat	55.7	73.7	18.0
Bendigo	57.2	74.9	17.8
Geelong	59.3	77.3	18.1
Hume	55.5	73.5	18.0
Latrobe - Gippsland	55.0	72.9	17.9
North West	49.9	67.3	17.4
Shepparton	51.9	70.2	18.3
Warrnambool and South West	52.0	70.4	18.4
Queensland			
Greater Brisbane	68.2	83.8	15.6
Brisbane - East	68.3	83.8	15.5
Brisbane - North	64.9	81.6	16.7
Brisbane - South	70.5	85.1	14.5
Brisbane - West	79.9	90.3	10.3
Brisbane Inner City	73.0	87.9	14.9
Ipswich	61.0	79.3	18.4
Logan - Beaudesert	65.5	82.5	17.0
Moreton Bay - North	59.4	78.1	18.7
Moreton Bay - South	75.1	88.5	13.3
Rest of Queensland	60.0	78.0	18.0
Cairns	59.6	76.8	17.2
Darling Downs - Maranoa	50.7	69.9	19.2
Fitzroy	58.7	76.9	18.2
Gold Coast	66.5	84.1	17.5
Mackay	60.3	78.8	18.5
Queensland - Outback	45.9	65.1	19.2
<i>Far North</i>	38.4	57.0	18.6
<i>Outback - North</i>	51.0	70.9	19.9
<i>Outback - South</i>	47.2	66.4	19.2
Sunshine Coast	64.3	81.9	17.6
Toowoomba	60.0	76.9	16.9
Townsville	60.4	78.4	18.0
Wide Bay	52.2	71.5	19.3
South Australia			
Greater Adelaide	60.2	77.5	17.4
Adelaide - Central and Hills	65.9	81.1	15.1
Adelaide - North	58.2	76.6	18.4
Adelaide - South	62.7	79.4	16.7
Adelaide - West	52.4	71.8	19.4
Rest of South Australia	50.6	69.2	18.6
Barossa - Yorke - Mid North	50.6	68.9	18.3

(continued)

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

Sub-State Region	2006 per cent	2011 per cent	2006–2011 change percentage points
South Australia - Outback	48.8	68.1	19.3
Eyre Peninsula and South West	49.4	69.1	19.8
Outback - North and East	47.6	65.9	18.3
South Australia - South East	51.5	70.0	18.5
Western Australia			
Greater Perth	66.7	83.0	16.3
Mandurah	59.2	78.1	18.9
Perth - Inner	71.9	86.2	14.2
Perth - North East	64.6	81.6	17.0
Perth - North West	68.3	84.1	15.8
Perth - South East	65.4	82.3	16.9
Perth - South West	66.5	82.7	16.3
Rest of Western Australia	57.2	75.1	17.9
Bunbury	59.9	77.9	18.0
Western Australia - Outback	55.6	73.8	18.2
Esperance	58.0	75.4	17.4
Gascoyne	38.2	63.1	24.9
Goldfields	59.9	77.3	17.4
Kimberley	44.0	64.7	20.7
Mid West	55.7	73.4	17.7
Pilbara	67.6	82.9	15.3
Western Australia - Wheat Belt	56.6	73.7	17.1
Tasmania			
Greater Hobart	58.0	75.5	17.5
Rest of Tasmania	52.6	70.8	18.2
Launceston and North East	54.1	71.7	17.6
South East	50.1	69.6	19.5
West and North West	51.4	69.9	18.5
Northern Territory			
Greater Darwin	64.4	83.0	18.7
Northern Territory - Outback	46.5	63.0	16.5
Alice Springs	54.6	71.4	16.9
Barkly	32.4	52.6	20.2
Daly - Tiwi - West Arnhem	28.2	47.0	18.8
East Arnhem	53.4	65.1	11.7
Katherine	42.1	59.7	17.6
Australian Capital Territory	74.9	87.8	12.9

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

Internet connections include broadband, dial-up, and other types of connection.

Table C 2.3.1.d Dwellings with an internet connection by capital city/balance of state

Capital City / Balance of State	2006 per cent	2011 per cent	2006–2011 change percentage points
Greater Sydney	68.2	82.8	14.6
Rest of New South Wales	55.9	73.1	17.2
Greater Melbourne	66.0	81.9	16.0
Rest of Victoria	55.0	73.0	18.0
Greater Brisbane	68.2	83.8	15.6
Rest of Queensland	60.0	78.0	18.0
Greater Adelaide	60.2	77.5	17.4
Rest of South Australia	50.6	69.2	18.6
Greater Perth	66.7	83.0	16.3
Rest of Western Australia	57.2	75.1	17.9
Greater Hobart	58.0	75.5	17.5
Rest of Tasmania	52.6	70.8	18.2
Greater Darwin	64.4	83.0	18.7
Rest of Northern Territory	46.5	63.0	16.5
Australian Capital Territory	74.9	87.8	12.9

Source: ABS Census of Population and Housing, retrieved using TableBuilder Pro, 2011, Third Release (cat. no. 2073.0) and ABS, TableBuilder, 2006 (cat. no. 2065.0)

Internet connections include broadband, dial-up, and other types of connection.

C 2.3.2 Residential electricity supply

Average electricity supply to households covers grid-connected households on residential tariffs, including those that provide some of their own electricity (e.g. through solar generation) as well as those that do not. Average electricity supply varies with climate zone, household income, and other household and dwelling characteristics.

Electricity is the dominant type of household energy supply, with almost every Australian household (99.8 per cent) using mains electricity as a source of energy inside their dwelling.⁶⁹ This indicator provides a guide to the average amount of electricity supplied to households in each region. The way in which energy is generated, and amount of energy supplied to the home, also has implications for the environment.

Table C 2.3.2.a Average electricity supplied from the distributor network grid per residential meter by major urban area

Major Urban Area	2010 kWh	2011 kWh	2012 kWh	2010–2012 change kWh	Trend
Greater Sydney	6,861.4	6,678.8	6,237.0	-624.4	
Greater Melbourne	5,143.0	4,702.6	4,589.4	-553.6	
Greater Brisbane	6,754.5	6,507.9	6,242.2	-512.3	
Greater Perth	6,084.0	5,403.8	5,110.3	-973.7	
Greater Adelaide	5,308.7	4,857.2	4,723.2	-585.5	
Gold Coast - Tweed Heads	6,237.8	6,114.7	5,686.5	-551.3	
Newcastle - Maitland	6,998.5	6,756.1	6,465.2	-533.3	
Canberra - Queanbeyan	n.p.	n.p.	n.p.	n.p.	
Sunshine Coast	5,960.6	5,818.1	5,499.1	-461.6	
Wollongong	6,934.4	6,222.8	5,971.3	-963.1	
Greater Hobart	9,393.7	8,242.5	7,721.0	-1,672.6	
Geelong	9,376.8	8,221.5	8,254.5	-1,122.3	
Townsville	6,415.0	6,134.0	5,707.3	-707.7	
Cairns	9,178.8	8,850.3	8,642.9	-536.0	
Greater Darwin	n.p.	n.p.	n.p.	n.p.	
Toowoomba	8,442.9	7,960.1	7,698.1	-744.7	
Ballarat	5,257.4	4,453.6	4,685.5	-571.9	
Bendigo	5,865.5	5,093.3	5,210.4	-655.1	
Albury - Wodonga	7,495.0	6,454.7	6,208.7	-1,286.2	
Launceston	8,924.0	7,529.1	7,129.7	-1,794.3	

Source: ABS, Household Energy Consumption Survey, Australia: Summary of Results, 2012 (cat. no. 4670.0)

The major urban areas of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart and Darwin are based on Greater Capital City Statistical Areas. All other major urban areas are based on Significant Urban Areas.

Mean electricity supplied was calculated by taking the mean across three classes of meter: gross, net and non-generating meters. In cases where data for gross and net meters is unavailable, the average for non-generating meters has been taken as the average for the region.

For dwellings with net meters, electricity generated is consumed by the dwelling in the first instance, with any excess generation exported to the electricity grid. This indicator only includes the shortfall of electricity that is imported to the dwelling (i.e. the energy supplied from the grid).

n.p. not published.

⁶⁹ ABS, Environmental Issues: Energy Use and Conservation, Mar 2011 (cat. no. 4602.0.55.001)

Table C 2.3.2.b Average electricity supplied from the distributor network grid per residential meter by sub-state region

Sub-State Region	2010 kWh	2011 kWh	2012 kWh	2010–2012 change kWh	Trend
New South Wales					
Greater Sydney	6,861.4	6,678.8	6,237.0	-624.4	
Central Coast	6,754.5	6,618.9	6,280.9	-473.6	
Sydney - Baulkham Hills and Hawkesbury	10,268.5	9,661.0	9,005.9	-1,262.6	
Sydney - Blacktown	7,214.1	6,905.3	6,465.3	-748.7	
Sydney - City and Inner South	4,571.7	4,517.9	4,173.0	-398.7	
Sydney - Eastern Suburbs	6,043.8	5,953.9	5,541.0	-502.9	
Sydney - Inner South West	6,229.6	6,193.1	5,781.0	-448.6	
Sydney - Inner West	5,621.3	5,406.9	5,060.3	-561.0	
Sydney - North Sydney and Hornsby	7,434.5	7,260.9	6,777.0	-657.5	
Sydney - Northern Beaches	6,821.0	6,696.3	6,315.1	-505.9	
Sydney - Outer South West	7,966.4	7,573.6	7,149.6	-816.8	
Sydney - Outer West and Blue Mountains	8,024.9	7,660.9	7,168.6	-856.3	
Sydney - Parramatta	6,271.8	6,027.5	5,679.0	-592.8	
Sydney - Ryde	6969	7234	6234	-735.0	
Sydney - South West	7,573.4	7,270.1	6,827.3	-746.2	
Sydney - Sutherland	8,057.3	7,934.4	7,371.3	-686.0	
Rest of New South Wales	6,779.6	6,058.9	5,773.0	-1,006.6	
Capital Region	6,577.9	5,624.4	5,458.9	-1,119.0	
Central West	7,367.7	6,417.4	6,086.5	-1,281.2	
Coffs Harbour - Grafton	6,012.4	5,090.1	4,756.0	-1,256.4	
Far West and Orana	8,245.7	6,958.4	6,658.6	-1,587.1	
Hunter Valley exc Newcastle	7,517.7	7,358.8	6,823.0	-694.7	
Illawarra	5,898.9	5,702.8	5,383.5	-515.3	
Mid North Coast	5,930.9	5,134.0	4,842.3	-1,088.6	
Murray	7,519.6	6,205.6	6,059.4	-1,460.2	
New England and North West	7,747.7	6,626.3	6,330.7	-1,417.0	
Newcastle and Lake Macquarie	6,605.2	6,321.8	6,186.0	-419.2	
Richmond - Tweed	6,020.0	5,073.9	4,815.6	-1,204.4	
Riverina	7,753.0	6,373.9	6,191.0	-1,562.1	
Southern Highlands and Shoalhaven	6,268.4	6,049.8	5,781.2	-487.2	
Victoria					
Greater Melbourne	5,143.0	4,702.6	4,589.4	-553.6	
Melbourne - Inner	4,771.8	4,182.2	4,315.9	-455.9	
Melbourne - Inner East	5,577.5	5,190.2	5,166.7	-410.8	
Melbourne - Inner South	5,530.2	5,255.6	5,187.3	-343.0	
Melbourne - North East	5,051.6	4,622.4	4,272.7	-778.9	
Melbourne - North West	5,193.1	4,432.5	4,405.5	-787.7	
Melbourne - Outer East	5,669.9	5,325.8	4,813.2	-856.7	
Melbourne - South East	5,150.4	4,865.3	4,575.7	-574.6	
Melbourne - West	4,693.1	4,089.2	4,256.8	-436.2	
Mornington Peninsula	5,043.4	4,790.0	4,669.8	-373.6	

















(continued)

Average electricity supplied from the distributor network grid per residential meter by sub-state region (continued)

<i>Sub-State Region</i>	<i>2010 kWh</i>	<i>2011 kWh</i>	<i>2012 kWh</i>	<i>2010–2012 change kWh</i>	<i>Trend</i>
Rest of Victoria	6,130.6	5,428.9	5,333.3	-797.4	
Ballarat	5,665.6	4,874.7	4,936.3	-729.3	
Bendigo	5,869.1	5,030.5	5,186.9	-682.2	
Geelong	5,067.0	4,423.2	4,583.3	-483.7	
Hume	6,529.0	6,102.0	5,528.5	-1,000.5	
Latrobe - Gippsland	5,688.8	5,450.1	4,828.1	-860.7	
North West	7,866.3	6,653.2	7,054.1	-812.2	
Shepparton	7,524.7	6,251.2	6,335.4	-1,189.3	
Warrnambool and South West	6,327.7	5,471.1	5,528.4	-799.3	
Queensland					
Greater Brisbane	6,754.5	6,507.9	6,242.2	-512.3	
Brisbane - East	7,167.0	6,912.2	6,582.9	-584.1	
Brisbane - North	5,982.8	5,780.3	5,521.3	-461.5	
Brisbane - South	6,640.7	6,436.8	6,142.2	-498.5	
Brisbane - West	7,558.1	7,255.5	7,061.4	-496.7	
Brisbane Inner City	5,578.7	5,441.8	5,241.1	-337.7	
Ipswich	6,775.0	6,481.3	6,271.3	-503.6	
Logan - Beaudesert	7,537.0	7,240.1	6,902.3	-634.7	
Moreton Bay - North	6,584.4	6,295.3	6,043.3	-541.2	
Moreton Bay - South	7,478.2	7,191.7	6,872.2	-606.0	
Rest of Queensland	7,146.2	6,850.4	6,599.0	-547.2	
Cairns	7,447.3	6,995.7	6,839.3	-608.0	
Darling Downs - Maranoa	6,883.2	6,664.4	6,410.4	-472.7	
Fitzroy	7,128.3	6,972.0	6,829.8	-298.5	
Gold Coast	7,507.5	7,161.8	6,792.9	-714.6	
Mackay	7,529.5	7,423.2	7,264.1	-265.3	
Queensland - Outback	8,339.2	7,824.3	8,078.6	-260.5	
Sunshine Coast	6,737.2	6,445.4	6,143.3	-593.9	
Toowoomba	6,308.4	6,137.0	5,820.1	-488.3	
Townsville	8,277.6	7,805.0	7,582.1	-695.5	
Wide Bay	5,927.0	5,729.2	5,413.4	-513.6	
South Australia					
Greater Adelaide	5,308.7	4,857.2	4,723.2	-585.5	
Adelaide - Central and Hills	5,937.0	5,509.8	5,363.7	-573.3	
Adelaide - North	5,349.1	4,870.4	4,713.8	-635.3	
Adelaide - South	5,185.2	4,724.3	4,597.2	-588.0	
Adelaide - West	4,647.3	4,224.6	4,132.4	-514.9	
Rest of South Australia	5,597.2	5,225.7	5,017.2	-580.0	
Barossa - Yorke - Mid North	5,693.1	5,272.8	5,029.6	-663.6	
South Australia - Outback	5,810.4	5,412.8	5,225.1	-585.3	
South Australia - South East	5,458.7	5,126.7	4,931.2	-527.5	

(continued)

Average electricity supplied from the distributor network grid per residential meter by sub-state region (continued)

Sub-State Region	2010 kWh	2011 kWh	2012 kWh	2010–2012 change kWh	Trend
Western Australia					
Greater Perth	6,084.0	5,403.8	5,110.3	-973.7	
Mandurah	5,422.6	4,741.1	4,552.8	-869.8	
Perth - Inner	6,320.6	5,615.1	5,390.1	-930.5	
Perth - North East	6,183.0	5,605.7	5,220.1	-962.9	
Perth - North West	6,156.1	5,506.3	5,167.5	-988.6	
Perth - South East	6,064.7	5,354.7	5,078.1	-986.6	
Perth - South West	6,020.0	5,293.6	5,031.3	-988.8	
Rest of Western Australia	6,448.0	5,769.2	5,212.1	-1,235.9	
Bunbury	5,383.6	4,743.4	4,558.6	-824.9	
Western Australia - Outback	8,282.5	7,512.1	6,259.1	-2,023.3	
Western Australia - Wheat Belt	5,529.8	4,888.8	4,721.1	-808.7	
Tasmania					
Greater Hobart	9,393.7	8,242.5	7,721.0	-1,672.6	
Rest of Tasmania	8,428.3	7,383.2	6,984.0	-1,444.4	
Launceston and North East	8,866.3	7,786.8	7,339.3	-1,527.1	
South East	6,494.1	5,722.4	5,392.6	-1,101.6	
West and North West	8,703.9	7,583.1	7,221.8	-1,482.1	
Northern Territory					
Greater Darwin	n.p.	n.p.	n.p.	n.p.	
Northern Territory - Outback	n.p.	n.p.	n.p.	n.p.	
Australian Capital Territory	n.p.	n.p.	n.p.	n.p.	













Source: ABS, Household Energy Consumption Survey, Australia: Summary of Results, 2012 (cat. no. 4670.0)

Mean electricity supplied was calculated by taking the mean across three classes of meter: gross, net and non-generating meters. In cases where data for gross and net meters is unavailable, the average for non-generating meters has been taken as the average for the region.

For dwellings with net meters, electricity generated is consumed by the dwelling in the first instance, with any excess generation exported to the electricity grid. This indicator only includes the shortfall of electricity that is imported to the dwelling (i.e. the energy supplied from the grid).

n.p. not published.

Table C 2.3.2.c Average electricity supplied from the distributor network grid per residential meter by capital city/balance of state

<i>Capital City / Balance of State</i>	<i>2010 kWh</i>	<i>2011 kWh</i>	<i>2012 kWh</i>	<i>2010–2012 change kWh</i>	<i>Trend</i>
Greater Sydney	6,861.4	6,678.8	6,237.0	-624.4	
Rest of New South Wales	6,779.6	6,058.9	5,773.0	-1,006.6	
Greater Melbourne	5,143.0	4,702.6	4,589.4	-553.6	
Rest of Victoria	6,130.6	5,428.9	5,333.3	-797.4	
Greater Brisbane	6,754.5	6,507.9	6,242.2	-512.3	
Rest of Queensland	7,146.2	6,850.4	6,599.0	-547.2	
Greater Adelaide	5,308.7	4,857.2	4,723.2	-585.5	
Rest of South Australia	5,597.2	5,225.7	5,017.2	-580.0	
Greater Perth	6,084.0	5,403.8	5,110.3	-973.7	
Rest of Western Australia	6,448.0	5,769.2	5,212.1	-1,235.9	
Greater Hobart	9,393.7	8,242.5	7,721.0	-1,672.6	
Rest of Tasmania	8,428.3	7,383.2	6,984.0	-1,444.4	
Greater Darwin	n.p.	n.p.	n.p.	n.p.	
Rest of Northern Territory	n.p.	n.p.	n.p.	n.p.	
Australian Capital Territory	n.p.	n.p.	n.p.	n.p.	

Source: ABS, Household Energy Consumption Survey, Australia: Summary of Results, 2012 (cat. no. 4670.0)

Mean electricity supplied was calculated by taking the mean across three classes of meter: gross, net and non-generating meters. In cases where data for gross and net meters is unavailable, the average for non-generating meters has been taken as the average for the region.

For dwellings with net meters, electricity generated is consumed by the dwelling in the first instance, with any excess generation exported to the electricity grid. This indicator only includes the shortfall of electricity that is imported to the dwelling (i.e. the energy supplied from the grid).

n.p. not published.

C 2.3.3 Residential water supply

Average water use of households is compiled from information from large urban water utilities with over 10,000 customers that 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.⁷⁰

Table C 2.3.3.a Average annual residential water supplied by major urban area

Major Urban Area	2007-08 kL/property	2010-11 kL/property	2013-14 kL/property	2007-08 to 2013-14 change kL/property	Trend
Australian Capital Territory	195.0	177.5	202.6	7.6	
Sydney	182.0	197.3	206.0	24.0	
Darwin	480.0	405.4	407.0	-73.0	
Adelaide	194.0	180.4	n.a.	n.a.	
Perth	268.0	264.4	253.8	-14.2	
Melbourne	153.5	137.6	150.0	-3.5	
South East Queensland	n.a.	n.a.	164.0	n.a.	
Newcastle-Maitland	177.0	174.9	180.9	3.9	
Cairns	n.a.	231.1	242.9	n.a.	
Geelong	156.0	142.0	150.8	-5.2	
Townsville	n.a.	287.0	403.7	n.a.	
Toowoomba	n.a.	n.a.	143.9	n.a.	

Source: National Performance Report 2013-14 – 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.

Includes only major utilities (with greater than) 100,000 customers.

n.a. not available.

⁷⁰ National Water Commission, National Performance Report 2012-13: urban water, 2014

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, 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

Remoteness Class	Land area
	hectare
	2011
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	768,780,861

Source: ABS, Australian Statistical Geography Standard (ASGS), 2011

Land use data for remoteness classes has not been calculated due to the inconsistency between this indicator and the population weighted concordance process used to calculate aggregate data from SA2s.

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

Major Urban Area	Land area hectare	Built-up area per cent	Agricultural per cent	Tree/Shrub cover per cent
2011				
Greater Sydney	1,236,774	11.8	4.9	81.6
Greater Melbourne	999,052	17.0	32.0	49.7
Greater Brisbane	1,582,593	5.3	8.3	84.4
Greater Perth	641,786	12.7	19.9	65.5
Greater Adelaide	325,766	17.5	41.9	37.9
Gold Coast - Tweed Heads	140,276	17.7	10.4	69.7
Newcastle - Maitland	101,889	18.1	11.2	68.4
Canberra - Queanbeyan	48,226	38.1	7.4	53.0
Sunshine Coast	163,299	6.0	10.9	79.5
Wollongong	57,218	17.4	12.6	67.9
Greater Hobart	169,546	5.8	17.1	74.8
Geelong	91,879	9.2	52.3	36.1
Townsville	69,615	13.8	9.6	73.8
Cairns	25,429	24.0	16.7	59.0
Greater Darwin	316,390	1.8	9.2	83.4
Toowoomba	49,812	10.6	38.0	47.2
Ballarat	34,362	14.4	38.8	45.4
Bendigo	28,744	18.6	10.6	69.8
Albury - Wodonga	62,821	6.7	48.6	40.7
Launceston	43,540	9.3	32.5	57.3

Source: ABS, Australian Statistical Geography Standard (ASGS), 2011; ABS, National Regional Profile, 2007 to 2011 (cat. no. 1379.0.55.001)

The major urban areas of Sydney, Melbourne, Brisbane, Perth, Adelaide, Hobart and Darwin are based on Greater Capital City Statistical Areas. All other major urban areas are based on Significant Urban Areas.

Data has been concorded from Statistical Areas Level 2 using a meshblock level population weighted concordance. This includes some SA2s that have missing data.

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

<i>Sub-State Region</i>	<i>Land area hectare</i>	<i>Built-up area per cent</i>	<i>Agricultural per cent</i>	<i>Tree/Shrub cover per cent</i>
2011				
New South Wales				
Greater Sydney	1,236,774	11.8	4.9	81.6
Central Coast	168,086	7.4	1.1	89.7
Sydney - Baulkham Hills and Hawkesbury	325,101	2.1	1.9	95.8
Sydney - Blacktown	24,213	47.5	12.1	37.6
Sydney - City and Inner South	6,552	75.2	1.3	14.0
Sydney - Eastern Suburbs	5,762	77.2	1.9	18.4
Sydney - Inner South West	16,390	88.4	0.3	10.6
Sydney - Inner West	6,450	93.3	0.2	4.8
Sydney - North Sydney and Hornsby	27,509	49.0	0.5	48.2
Sydney - Northern Beaches	25,404	33.7	0.9	62.5
Sydney - Outer South West	127,853	7.6	19.7	72.1
Sydney - Outer West and Blue Mountains	397,518	3.8	3.2	90.2
Sydney - Parramatta	16,163	86.6	0.8	10.4
Sydney - Ryde	6,937	84.2	0.3	15.6
Sydney - South West	53,248	22.2	20.1	55.9
Sydney - Sutherland	29,589	25.2	1.3	71.3
Rest of New South Wales	78,844,103	0.2	25.4	56.2
Capital Region	5,189,451	0.2	28.2	70.1
Central West	7,029,781	0.2	50.7	45.7
Coffs Harbour - Grafton	1,322,978	0.4	8.1	90.9
Far West and Orana	33,936,429	0.0	13.8	54.8
Hunter Valley exc Newcastle	2,149,211	0.6	12.4	85.4
Illawarra	153,908	6.5	10.4	79.6
Mid North Coast	1,885,082	0.5	8.4	90.0
Murray	9,779,628	0.1	35.6	36.7
New England and North West	9,914,492	0.1	26.8	70.7
Newcastle and Lake Macquarie	86,999	17.2	3.1	76.4
Richmond - Tweed	1,027,071	0.9	15.5	83.6
Riverina	5,698,691	0.2	59.4	33.3
Southern Highlands and Shoalhaven	670,382	1.3	9.9	87.3
Victoria				
Greater Melbourne	999,052	17.0	32.0	49.7
Melbourne - Inner	14,235	84.4	0.6	11.9
Melbourne - Inner East	14,675	87.8	1.3	10.9
Melbourne - Inner South	16,150	82.8	2.6	12.9
Melbourne - North East	185,128	9.7	26.8	62.5
Melbourne - North West	161,968	8.9	47.4	43.1
Melbourne - Outer East	187,748	14.7	14.6	70.1
Melbourne - South East	192,144	14.5	47.2	36.5
Melbourne - West	141,639	18.1	32.4	47.1
Mornington Peninsula	85,367	20.9	33.3	43.8

(continued)

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

Sub-State Region	Land area hectare	Built-up area per cent	Agricultural per cent	Tree/Shrub cover per cent
2011				
Rest of Victoria	21,750,519	0.3	49.6	46.8
Ballarat	1,028,753	0.7	52.0	46.9
Bendigo	1,184,189	0.6	62.4	35.8
Geelong	442,864	2.8	56.0	39.8
Hume	3,400,394	0.2	32.6	65.2
Latrobe - Gippsland	4,155,722	0.3	24.3	73.3
North West	7,807,158	0.1	57.5	36.4
Shepparton	1,093,433	0.5	73.3	24.9
Warrnambool and South West	2,638,007	0.2	70.2	27.7
Queensland				
Greater Brisbane	1,582,593	5.3	8.3	84.4
Brisbane - East	82,521	12.1	3.5	77.1
Brisbane - North	18,660	43.9	3.4	49.7
Brisbane - South	26,514	48.9	1.4	47.4
Brisbane - West	26,769	23.5	5.0	70.8
Brisbane Inner City	8,136	79.6	0.3	17.8
Ipswich	668,133	1.9	8.0	87.5
Logan - Beaudesert	258,660	4.8	10.8	84.3
Moreton Bay - North	415,871	2.2	8.7	88.0
Moreton Bay - South	77,329	8.0	10.2	78.3
Rest of Queensland	171,413,214	0.1	4.7	66.2
Cairns	2,134,461	0.5	7.3	91.3
Darling Downs - Maranoa	16,635,268	0.0	14.6	72.6
Fitzroy	11,754,897	0.1	14.8	78.6
Gold Coast	185,584	12.0	11.5	74.3
Mackay	9,012,549	0.1	18.6	72.7
Queensland - Outback	118,304,225	0.0	1.1	60.3
Sunshine Coast	308,476	3.6	11.3	82.9
Toowoomba	225,846	2.9	13.4	82.7
Townsville	8,001,626	0.2	4.7	90.3
Wide Bay	4,850,281	0.3	7.0	91.6
South Australia				
Greater Adelaide	325,766	17.5	41.9	37.9
Adelaide - Central and Hills	149,727	7.6	46.4	45.1
Adelaide - North	93,782	19.5	49.8	25.5
Adelaide - South	66,308	24.6	29.5	44.1
Adelaide - West	15,948	68.7	5.0	18.3
Rest of South Australia	98,092,169	0.0	8.1	48.4
Barossa - Yorke - Mid North	3,771,700	0.2	62.9	21.2
South Australia - Outback	87,775,312	0.0	2.8	50.0
South Australia - South East	6,545,156	0.1	47.7	43.4

(continued)

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

<i>Sub-State Region</i>	<i>Land area hectare</i>	<i>Built-up area per cent</i>	<i>Agricultural per cent</i>	<i>Tree/Shrub cover per cent</i>
2011				
Western Australia				
Greater Perth	641,786	12.7	19.9	65.5
Mandurah	103,193	4.6	57.7	34.8
Perth - Inner	9,224	71.8	0.9	25.9
Perth - North East	176,260	6.2	17.1	76.0
Perth - North West	88,399	23.9	2.6	72.3
Perth - South East	202,698	10.6	14.8	72.8
Perth - South West	62,011	26.9	9.4	58.4
Rest of Western Australia	252,015,634	0.0	6.1	42.8
Bunbury	2,480,046	0.4	23.5	74.8
Western Australia - Outback	229,805,316	0.0	1.8	43.5
Western Australia - Wheat Belt	19,730,272	0.0	54.1	31.1
Tasmania				
Greater Hobart	169,546	5.8	17.1	74.8
Rest of Tasmania	6,632,273	0.2	13.4	83.1
Launceston and North East	1,997,504	0.3	19.8	78.4
South East	2,382,173	0.0	10.9	82.9
West and North West	2,252,596	0.2	10.4	87.5
Northern Territory				
Greater Darwin	316,390	1.8	9.2	83.4
Northern Territory - Outback	134,503,483	0.0	1.0	54.0
Australian Capital Territory	235,795	6.8	9.5	82.3

Source: ABS, Australian Statistical Geography Standard (ASGS), 2011; ABS, National Regional Profile, 2007 to 2011 (cat. no. 1379.0.55.001)
 Data has been concorded from Statistical Areas Level 2 using a meshblock level population weighted concordance. This includes some SA2s that have missing data.

Table C 2.4.1.d Land area and land use by capital city/balance of state

<i>Capital City / Balance of State</i>	<i>Land area hectare</i>	<i>Built-up area per cent</i>	<i>Agricultural per cent</i>	<i>Tree/Shrub cover per cent</i>
2011				
Greater Sydney	1,236,774	11.8	4.9	81.6
Rest of New South Wales	78,844,103	0.2	25.4	56.2
Greater Melbourne	999,052	17.0	32.0	49.7
Rest of Victoria	21,750,519	0.3	49.6	46.8
Greater Brisbane	1,582,593	5.3	8.3	84.4
Rest of Queensland	171,413,214	0.1	4.7	66.2
Greater Adelaide	325,766	17.5	41.9	37.9
Rest of South Australia	98,092,169	0.0	8.1	48.4
Greater Perth	641,786	12.7	19.9	65.5
Rest of Western Australia	252,015,634	0.0	6.1	42.8
Greater Hobart	169,546	5.8	17.1	74.8
Rest of Tasmania	6,632,273	0.2	13.4	83.1
Greater Darwin	316,390	1.8	9.2	83.4
Rest of Northern Territory	134,503,483	0.0	1.0	54.0
Australian Capital Territory	235,795	6.8	9.5	82.3

Source: ABS, Australian Statistical Geography Standard (ASGS), 2011; ABS, National Regional Profile, 2007 to 2011 (cat. no. 1379.0.55.001)
 Data has been concorded from Statistical Areas Level 2 using a meshblock level population weighted concordance. This includes some SA2s that have missing data.