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Department of Infrastructure, Transport, Cities and Regional Development
Bureau of Infrastructure, Transport and Regional Economics

STATISTICAL REPORT

Yearbook 2019

Australian infrastructure statistics

Bureau of Infrastructure, Transport and Regional Economics

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Yearbook 2019

Department of Infrastructure, Transport, Cities,
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Foreword

The aim of the Australian Infrastructure Statistics Yearbook is to provide a single, comprehensive annual source of infrastructure statistics for use by policymakers, industry leaders, transport analysts and the wider Australian community.

The Yearbook is presented in five parts.

- Part I: Infrastructure and the Economy;
- Part T: Transport;
- Part E: Energy;
- Part C: Communications, and
- Part W: Water.

The publication is primarily a source of long-term, aggregate time series infrastructure statistics. Most statistics included in the publication are currently collected by BITRE or other Australian, state or territory government agencies.

The 2019 Yearbook was prepared by Bryan Lee with thanks to contributions from:

- David Cosgrove;
- David Gargett;
- David Mitchell;
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- Simon O'Mahony, and
- Jack McAuley.

Gary Dolman
Head of Bureau
Bureau of Infrastructure, Transport and Regional Economics
December 2019

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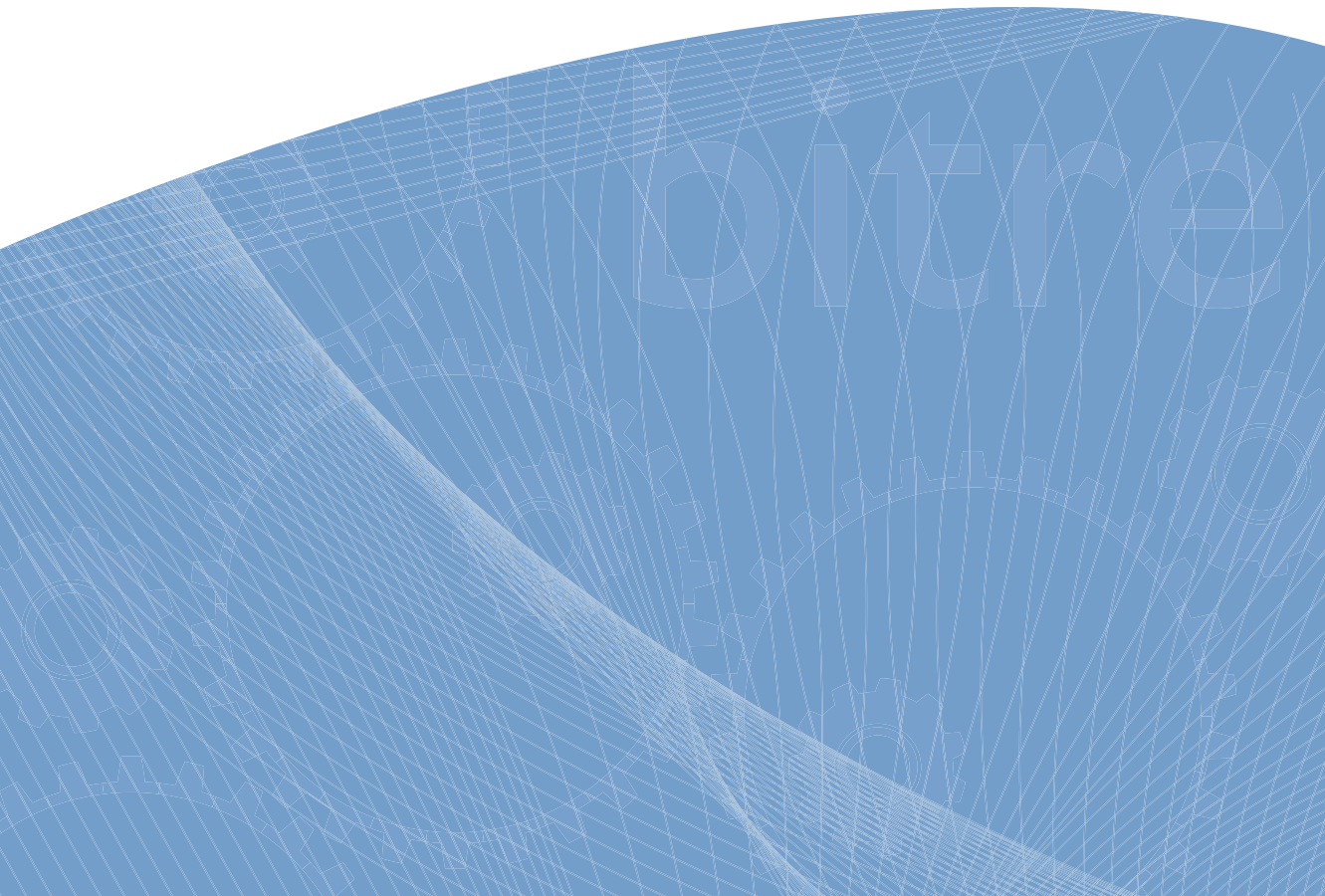


Introduction

The Australian Infrastructure Statistics Yearbook provides comprehensive and coherent time series statistics on Australian infrastructure and its use.

Part 1 of the Yearbook provides a summary of economic infrastructure and several statistical measures of factors that relate to investment in and use of economic infrastructure. The rest of the Yearbook is divided into four parts, focussing on each of the four themes of major economic infrastructure:

- Part T, for transport infrastructure;
- Part E, for energy infrastructure;
- Part C, for communications infrastructure; and
- Part W, for water infrastructure.

The Yearbook covers several key areas:

- Physical infrastructure. Measures include the value and capacity of infrastructure at a given time ('stock' measures); additions to the amount of infrastructure (construction) and reductions (depreciation) that take place during the year ('flow' measures); and measures of the quality of the infrastructure.
- Inputs. Measures of non-capital inputs to activities that rely on infrastructure.
- Activity. Measures of activities associated with infrastructure. These activities may be grouped into themes. For example, for Part T (transport), these themes include freight and passenger movements, and road, rail, aviation and maritime activity.

Publication layout

End Notes are provided by table number at the end of the publication. References provided at the bottom of tables relate to the most recent issue of the statistical publication. Where a complete time series is not available from the most recent issue, earlier issues were used.

Below is a summary of each chapter in the Yearbook.

Part 1 Infrastructure and the economy

Chapter 1: The economy

This chapter provides several key macroeconomic indicators of factors that are likely to influence, or be influenced by, activity associated with infrastructure. Where available, the contribution of detailed infrastructure industries to the key macroeconomic indicator is provided. This chapter provides estimates of production, employment, wages and salaries, prices, international trade, interest rates, the Australian currency exchange rate and the Australian resident population.

Chapter 2:Infrastructure construction

Time series statistics on infrastructure construction activity across the four forms of major economic infrastructure covered in the Yearbook are provided in this chapter.

Part T Transport

Chapter 1: Transport infrastructure

This chapter provides a number of measures of the construction of transport infrastructure as well as measures of the length of roads available for public use and road construction price indexes.

Chapter 2: Freight

In its broadest sense, freight transport describes the movement of physical items between locations. A summary of freight statistics is provided, classified by mode of transport. Freight is further classified into bulk and non-bulk segments. Two measures of freight transport are currently provided in the framework: the weight of freight moved in Australia (measured in millions of tonnes) and freight by weight and distance moved (measured in tonne kilometres—the transport task performed in moving one tonne of freight one kilometre).

Chapter 3: Passengers

In a similar fashion, passenger transport describes the movement of people between locations. This definition of passengers does not include drivers of freight vehicles when they are employed for freight purposes but does include drivers of freight vehicles when they are being used to transport passengers (e.g. private use of light commercial vehicles). The chapter provides a summary of passenger statistics, classified by mode of transport (some measures of walking and cycling to work are available in Table T 3.4, but estimates for recreational boating are not currently provided in this publication). Two measures of passenger transport are currently provided: the number of people transported and the number of passenger kilometres travelled (a measure of the transport task performed in moving one passenger one kilometre).

Chapters 4, 5,6 and 7: Road, Rail, Aviation and Shipping

These chapters focus on the four main motorised modes of transport including road, rail, aviation and shipping. Where possible, data are classified by location in terms of state or territory (interstate, intrastate, intercapital) or level of urbanisation.

Price data are included in the framework to provide an indication of the costs of each mode of transport. Price estimates for shipping and rail are not readily available.

The Yearbook also includes estimates for the size and characteristics of the various modal vehicle fleets.

Chapters 8 and 9: Safety and Energy and the Environment

These chapters complete the section on transport infrastructure with a summary of some key impacts of transport activity.

Chapter 8 presents safety statistics for transport accidents and casualties with comparisons by mode of transport; state or territory of accident; and severity of injuries.

Chapter 9 provides direct energy consumption and emissions data by transport activity. This includes estimates for fuel sales, fuel prices and the production and international trade of transport fuels, classified by petroleum fuel type, as well as estimates of transport emissions, classified by transport mode and emission type.

Part E Energy

Chapter 1: Energy infrastructure.

A number of measures of energy infrastructure construction are provided in this chapter as well as measures of the length of electricity networks, capacity of electricity generation plants and reliability of electricity supply.

Chapter 2: Energy production and usage

The first few tables in Chapter 2 provide a summary of energy production in Australia of all main primary fuels and energy imports and exports. The remaining tables provide energy usage details for key specific energy types:

- For electricity, detailed usage statistics are provided by state/territory and industry, with further detail provided for the number of customers and electricity prices facing residential consumers in each capital city.
- For gas usage, statistics are provided by state/territory and industry, as well as gas prices facing residential consumers in each capital city.
- For black coal, detailed usage statistics are provided by state/territory and industry, as well as time series statistics for export prices for black coal.
- For brown coal, detailed usage statistics are provided, classified by industry for New South Wales and Victoria.
- For petroleum fuels, detailed usage statistics are provided by state/territory and industry, as well as time series statistics for a range of international measures of crude oil prices.

Chapter 3: Energy safety and emissions

This chapter provides data on energy safety including the number of hospital admissions due to exposure to electicity, radiation and extreme temperature. It also provide data on energy emissions based on the National Greenhouse Gas Inventory.

Part C Communication

The Yearbook focuses on key infrastructure that enables economic activity. Telecommunications networks are a vital part of Australian infrastructure.

Chapters 1 and 2: Communication infrastructure and subscribers and providers

Part C includes measures of both physical infrastructure (Chapter 1) and technology investments that enhance infrastructure capacity (Chapter 2). Chapter 2 also provides estimates for fixed and mobile telephone and internet subscribers and internet service providers.

Chapter 3: Subscriptions and prices

This chapter provides estimates of internet usage and internet commerce, as well as telecommunications prices facing residential customers in each capital city, indicative broadband subscription prices and domain name registration statistics. This chapter also provides the consumer price index, by capital city, for telecommunitions services.

Part W Water

Chapter 1: Water infrastructure

This chapter provides measures of water infrastructure construction that are consistent with construction measures used in earlier parts of the Yearbook. In addition, there are several stock measures such as:

- the current value of water infrastructure assets;
- the capacity of major water storage dams; and
- infrastructure quality measures for water supply, wastewater treatment and rural water supply networks.

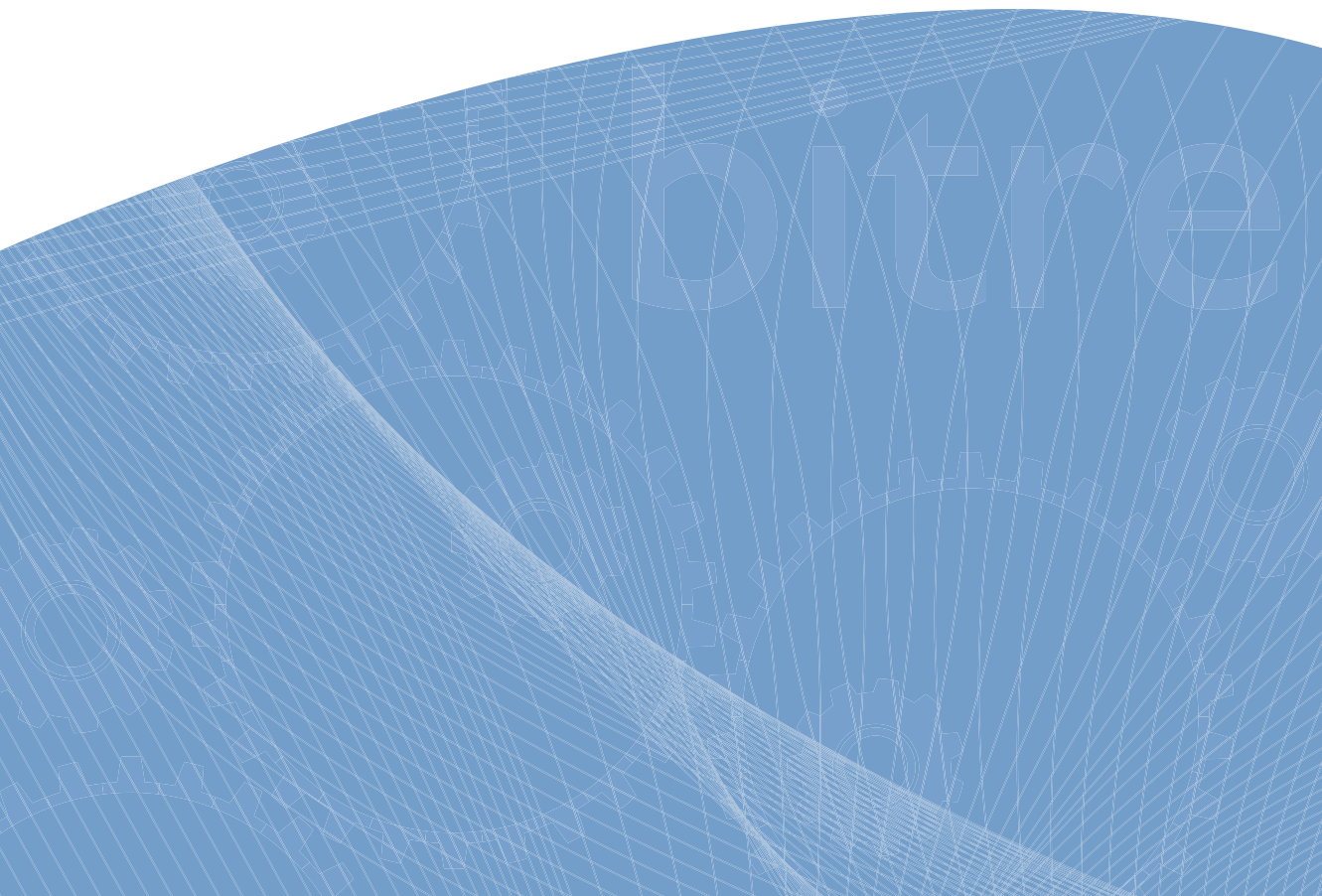
Chapter 2: Water inputs

Tables in Chapter 2 provide estimates for total Australian rainfall each calendar year, and the volume of water sourced in each urban centre.

Chapter 3: Rural water use and prices

Chapter 3 provides estimates for rural water usage in Australia. Statistics are provided for the services provided by major water utilities (urban water, urban wastewater and rural water) in terms of the population that their networks serve, the number of customer connections to the network and the volume and nature of water supplied. In addition, Chapter 3 provides the gross value of irrigated agricultural production, by agricultural activity.

PART I: Infrastructure and the economy



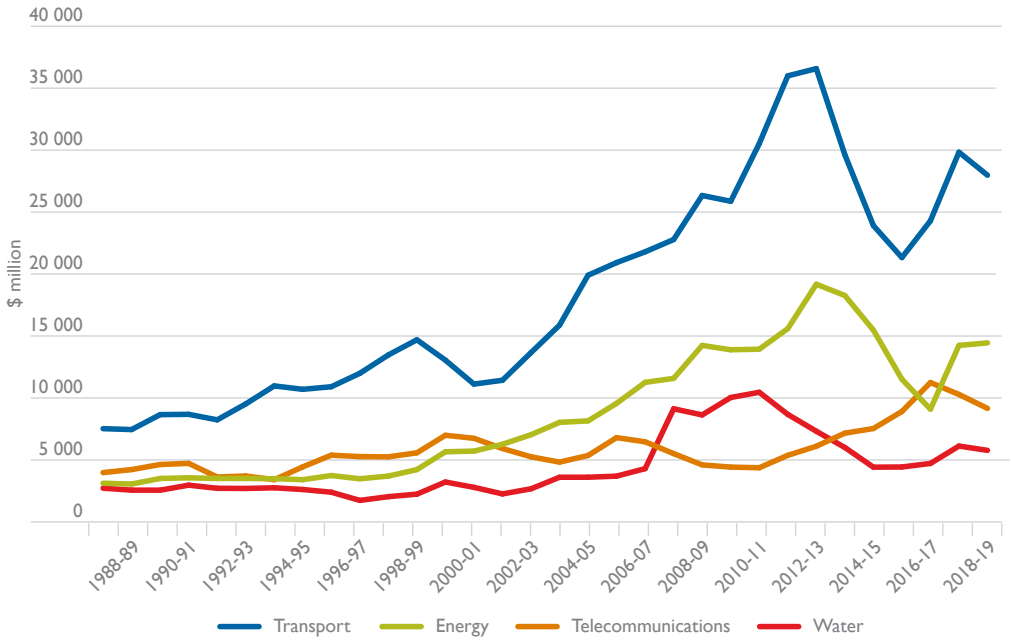
Australia's key infrastructure statistics

	In 2018–19, **9.4 per cent** of Australia's GDP was accounted for by Australian infrastructure industries.
	In 2018–19, **49 per cent** of infrastructure construction was in the transport sector.
	**$28.7 billion** was spent on roads by governments in 2017–18.
	Australia's total road length was **877 651 kilometres** in 2018.
	In 2018–19, there were **218.9 billion tonne kilometres** of freight moved by road and in 2015–16 there were **413.5 billion tonne kilometres** of freight moved by rail.
	In 2016–17, **167.7 billion** passenger kilometres were travelled by car on capital city roads, and **14.2 billion** passenger kilometres were travelled on urban rail networks.
	There were **32 894 route kilometres** of open railway as at December 2019.
	There were **1 677 route kilometres** of urban railway.
	In 2018–19, there were **42.1 million passengers** on international flights in Australia and **61.0 million passengers** on domestic flights.
	Sydney airport was the busiest in the country with **44.4 million passengers** using the facility in 2018–19.
	In 2017–18, **8.1 million** TEUs were exchanged at Australia's five principal container ports.
	**107.8 billion tonne kilometres** of freight was moved by coastal shipping in 2016–17.
	In 2018–19, **25.2 per cent** of infrastructure construction was in the energy sector.
	In 2017–18, Australia produced **449 938 kilotonnes** of black coal.
	In 2018–19, **16.0 per cent** of infrastructure construction was in the telecommunications sector.
	In 2018–19, **10.1 per cent** of infrastructure construction was spent on water.

PART I:
Infrastructure and the economy

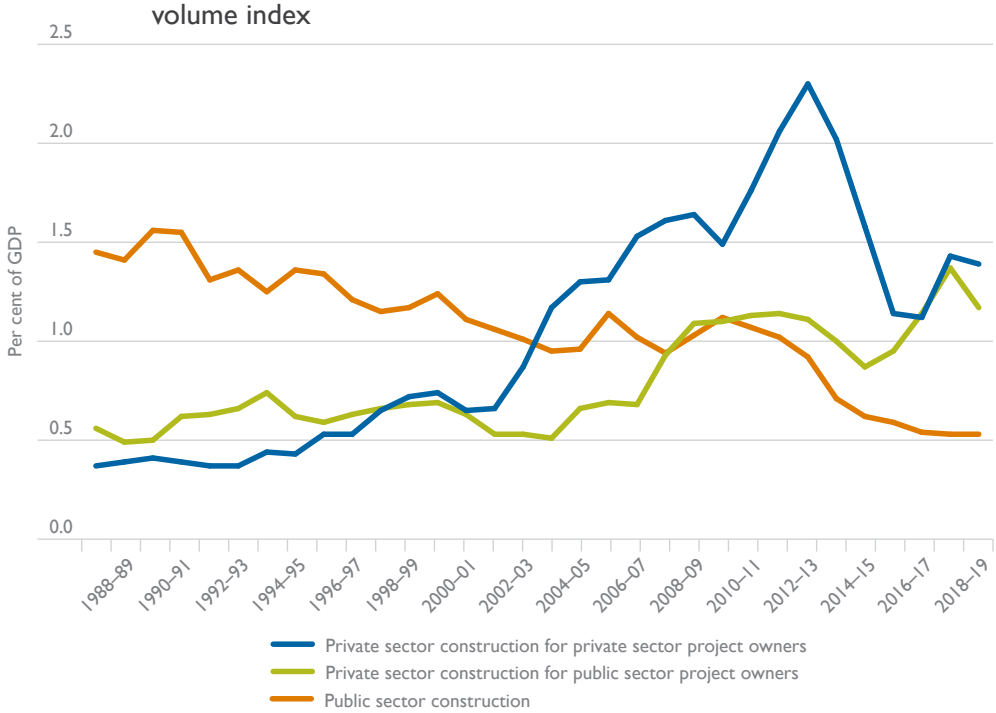
The main source of infrastructure statistics used by BITRE is the ABS publication Engineering Construction Activity, Australia (ABS cat. no. 8762.0). This publication provides measures of non-building construction, classified by major form of infrastructure: transport (roads, rail, ports, etc), energy (electricity and gas transmission networks, etc), telecommunications networks, and water supply and distribution networks.

Figure 1.1 Infrastructure construction activity, adjusted by chain volume index



Source: ABS (2019h).

Figure 1 2 Infrastructure construction activity, by sector, adjusted by chain volume index



Source: ABS (2019h).

CHAPTER 1
The economy

Table 1 1.1a Gross value added, major Australian infrastructure industries, 2016–17 prices

Financial year	Chain volume measures						
	Gross value added, at basic prices						
	Transport, postal and warehousing	Energy		Information media and telecom-munications	Water Supply and waste services	Gross Domestic Product	Major infrastructure industries as percentage of GDP
		Electricity	Gas				
	$ million						*%*
1983–84	26 405	12 731	683	6 585	10 086	611 985	9.2
1984–85	28 551	13 512	764	7 096	10 603	644 110	9.4
1985–86	30 281	14 204	751	7 700	10 778	670 111	9.5
1986–87	30 843	14 807	737	8 284	10 717	687 236	9.5
1987–88	32 201	15 692	790	9 013	10 988	726 669	9.5
1988–89	33 666	16 539	844	9 754	11 257	754 789	9.5
1989–90	34 513	17 379	905	10 903	11 795	781 727	9.7
1990–91	34 749	17 703	857	11 503	12 339	778 631	9.9
1991–92	35 513	18 112	842	12 333	12 201	781 849	10.1
1992–93	35 753	18 663	851	13 775	12 102	813 353	10.0
1993–94	37 701	19 321	900	15 046	12 467	845 731	10.1
1994–95	39 978	19 755	961	16 826	12 861	878 159	10.3
1995–96	43 115	20 088	971	17 752	12 843	912 220	10.4
1996–97	44 948	19 989	974	19 063	12 762	948 403	10.3
1997–98	45 943	20 961	1 015	20 662	13 226	991 808	10.3
1998–99	47 357	21 428	1 095	22 129	13 590	1 042 129	10.1
1999–00	49 184	21 997	1 144	22 850	13 585	1 083 117	10.0
2000–01	51 054	22 338	1 177	23 693	13 909	1 104 030	10.2
2001–02	52 759	22 256	1 197	24 464	14 594	1 148 207	10.0
2002–03	55 865	22 288	1 215	25 968	14 616	1 182 492	10.1
2003–04	57 931	22 655	1 232	27 081	14 129	1 230 448	10.0
2004–05	61 405	23 061	1 224	27 837	14 167	1 269 874	10.1
2005–06	63 138	23 868	1 224	28 932	13 918	1 305 361	10.0
2006–07	66 860	24 042	1 294	30 836	14 146	1 355 543	10.1
2007–08	70 603	24 658	1 339	32 714	13 566	1 405 128	10.2
2008–09	70 156	25 956	1 348	33 157	14 021	1 432 344	10.1
2009–10	71 417	26 033	1 363	33 817	14 451	1 461 958	10.1
2010–11	73 542	26 051	1 459	34 943	15 309	1 497 962	10.1
2011–12	76 588	25 616	1 387	35 357	15 851	1 556 396	9.9
2012–13	79 346	25 201	1 516	35 308	16 363	1 597 107	9.9
2013–14	79 127	24 767	1 504	36 755	15 756	1 638 132	9.6
2014–15	79 388	24 779	1 615	39 408	16 245	1 676 400	9.6
2015–16	80 895	25 069	1 722	42 283	16 768	1 724 123	9.7
2016–17	83 053	25 031	1 730	43 883	17 132	1 764 512	9.7
2017–18	83 679	25 192	1 711	45 053	17 787	1 815 906	9.6
2018–19	83 723	25 103	1 801	46 269	17 912	1 850 997	9.4

See end notes.
Source: ABS (2019c).

Table 1 1.1b Australian transport, postal and warehousing gross value added, 2016–17 prices

Financial year	Transport, postal and warehousing industry					In-house transport [a]	Gross Domestic Product	Transport, postal and warehousing industry as percentage of GDP	Transport, postal and warehousing activity (including in-house transport) as percentage of GDP
	Road transport	Air and space transport	Rail, pipeline and other transport [3]	Transport, postal and storage services	Total				
	$ million							per cent	per cent
1983–84	7 431	1 413	4 794	13 448	26 405		611 985	4.3	
1984–85	7 983	1 524	5 399	14 668	28 551		644 110	4.4	
1985–86	8 430	1 657	5 770	15 029	30 281		670 111	4.5	
1986–87	8 368	1 831	5 754	15 402	30 843		687 236	4.5	
1987–88	8 867	2 048	5 863	15 843	32 201		726 669	4.4	
1988–89	9 533	2 174	5 956	16 310	33 666		754 789	4.5	
1989–90	9 979	1 884	6 328	16 727	34 513		781 727	4.4	
1990–91	9 706	2 189	6 323	16 880	34 749		778 631	4.5	
1991–92	10 019	2 551	6 340	16 791	35 513		781 849	4.5	
1992–93	9 797	2 817	6 534	16 796	35 753		813 353	4.4	
1993–94	10 276	3 082	6 803	17 712	37 701		845 731	4.5	
1994–95	11 276	3 351	6 776	18 718	39 978		878 159	4.6	
1995–96	12 499	3 584	7 236	19 967	43 115		912 220	4.7	
1996–97	13 083	3 814	7 453	20 734	44 948		948 403	4.7	
1997–98	13 604	3 805	7 428	21 289	45 943		991 808	4.6	
1998–99	14 116	3 898	7 558	21 974	47 357		1 042 129	4.5	
1999–00	14 827	4 121	7 828	22 574	49 184		1 083 117	4.5	
2000–01	15 330	4 444	7 890	23 430	51 054		1 104 030	4.6	
2001–02	16 274	4 179	8 253	24 292	52 759		1 148 207	4.6	
2002–03	17 416	4 722	8 674	25 169	55 865		1 182 492	4.7	
2003–04	18 735	5 029	8 862	25 446	57 931		1 230 448	4.7	
2004–05	19 831	5 550	9 097	26 954	61 405		1 269 874	4.8	
2005–06	20 715	5 865	9 192	27 371	63 138		1 305 361	4.8	
2006–07	22 951	6 396	9 173	28 428	66 860		1 355 543	4.9	
2007–08	24 435	6 615	9 849	29 873	70 603		1 405 128	5.0	
2008–09	22 913	6 388	10 171	30 798	70 156		1 432 344	4.9	
2009–10	23 532	6 381	10 235	31 392	71 417		1 461 958	4.9	
2010–11	23 098	6 856	10 655	32 994	73 542	43 498	1 497 962	4.9	7.8
2011–12	22 976	7 222	11 211	35 253	76 588	48 004	1 556 396	4.9	8.0
2012–13	22 953	7 290	11 817	37 423	79 346	48 950	1 597 107	5.0	8.0
2013–14	23 340	7 434	11 034	37 389	79 127	49 077	1 638 132	4.8	7.8
2014–15	23 701	8 016	11 493	36 216	79 388	45 471	1 676 400	4.7	7.4
2015–16	23 818	8 915	11 614	36 487	80 895	45 756	1 724 123	4.7	7.3
2016–17	23 872	9 048	11 864	38 269	83 053		1 764 512	4.7	
2017–18	23 971	9 458	11 947	38 303	83 679		1 815 906	4.6	
2018–19	24 490	9 698	12 191	37 344	83 723		1 850 997	4.5	

See end notes.

[a] In-house transport refers to transport activities undertaken outside of the Transport, postal and warehousing industry (for example retailers using their own freight vehicles). This encapsulates both own-account (or 'ancillary') production, which is not intended for market, and is consumed in the production of the industry's primary input, as well as secondary production of transport on a fee for-hire basis.

Source: ABS (2018), ABS (2019c), BITRE estimates.

Table 1 1.1c In-house transport gross value added, by industry, 2016-17 prices

Financial year	Agri-culture, forestry and fishing	Mining	Manu-facturing	Electricity, gas, water and waste services	Cons-truction	Whole-sale Trade	Retail Trade	Accom-modation and food services	Information media and tele-communi-cations
	$ million								
2010–11	3 736	4 508	3 982	1 173	8 994	3 138	1 784	361	1 017
2011–12	3 986	5 268	4 089	1 237	10 349	3 575	2 090	375	1 088
2012–13	4 049	5 648	4 082	1 676	10 566	3 428	1 981	385	971
2013–14	4 170	6 172	3 922	1 538	10 361	3 404	1 878	394	881
2014–15	3 957	5 672	3 662	1 684	8 976	2 863	1 592	355	871
2015–16	4 580	4 782	3 911	1 781	8 532	2 860	1 601	365	876

Financial year	Financial and insurance services	Rental, hiring and real estate services	Profes-sional, scientific and technical services	Admin-istrative and support services	Public admin-istration and safety	Education and training	Health care and social assistance	Arts and recreation services	Other services	Total
	$ million									
2010–11	1 788	987	2 512	1 005	5 363	851	1 051	915	335	43 499
2011–12	1 780	1 064	2 728	1 178	5 708	897	1 313	907	369	48 003
2012–13	2 049	1 012	2 714	1 196	5 700	927	1 280	897	389	48 951
2013–14	2 148	973	2 701	1 111	6 047	878	1 309	826	361	49 074
2014–15	2 125	938	2 550	1 068	5 846	808	1 190	955	362	45 472
2015–16	2 331	1 010	2 741	1 030	5 703	920	1 226	1 129	376	45 756

Note: In-house transport refers to transport activities undertaken outside of the transport, postal and warehousing industry (for example retailers using their own vehicles). This encapsulates both own-account (or 'ancillary') production, which is not intended for market, and is consumed in the production of the industry's primary input, as well as secondary production of transport on a fee for-hire basis.

Source: ABS (2018), BITRE estimates.

Table 1 1.2a Australian employment, major infrastructure industries—transport and storage

August reference month	Transport and Storage Total Employment												
	Road transport	Rail transport	Water transport	Air and space transport	Other Transport	Postal and courier services	Transport support services	Warehousing and storage services	Total	In-house transport [a]	Total Aust employment	Transport, postal and warehousing industry as % of total employment	Transport, postal and warehousing activity (including in-house transport) as % of total employment
	thousands											%	
2004	218.9	29.9	13.4	40.3	9.2	81.7	39.6	36.2	469.2		9 462.1	5.0	
2005	214.1	30.3	8.7	50.3	7.4	86.3	41.9	41.4	480.4		9 870.3	4.9	
2006	228.8	33.1	12.4	46.0	7.6	74.8	45.0	43.2	490.9		10 105.8	4.9	
2007	234.5	30.5	12.6	46.4	13.8	88.6	44.6	48.1	519.2		10 406.4	5.0	
2008	228.3	48.5	9.4	48.7	8.9	96.6	57.3	57.0	554.8		10 710.4	5.2	
2009	231.0	52.0	8.5	51.0	11.5	97.9	71.2	25.1	548.2		10 707.3	5.1	
2010	215.0	46.9	7.2	52.1	9.3	93.1	79.8	43.3	546.8		10 973.8	5.0	
2011	233.6	46.0	9.2	56.9	10.9	89.4	67.7	48.0	561.6	411	11 127.2	5.0	8.7
2012	222.4	46.4	8.1	49.1	9.2	76.7	64.7	53.6	530.2	451	11 264.1	4.7	8.7
2013	220.0	45.0	11.8	54.5	5.5	97.3	82.8	51.4	568.4	436	11 361.4	5.0	8.8
2014	252.3	41.1	8.6	57.2	6.9	81.5	81.6	49.3	578.5	435	11 572.8	5.0	8.8
2015	252.6	40.6	6.4	59.2	7.6	89.3	83.5	53.3	592.5	406	11 702.6	5.1	8.5
2016	267.7	36.9	6.4	54.3	7.0	99.3	74.9	54.5	601.1	400	11 904.7	5.0	8.4
2017	294.5	43.8	5.7	64.3	4.9	79.8	81.1	61.0	635.2		12 245.3	5.2	
2018	285.7	43.4	7.0	53.9	6.2	87.3	88.1	70.3	642.0		12 547.1	5.1	
2019	307.2	50.6	7.9	63.1	6.2	98.4	70.7	64.4	668.5		12 859.4	5.2	

See end notes.

[a] In-house transport refers to transport activities undertaken outside of the transport, postal and warehousing industry (for example retailers using their own vehicles).This encapsulates both own-account (or 'ancillary') production, which is not intended for market, and is consumed in the production of the industry's primary input, as well as secondary production of transport on a fee for-hire basis.

Source: ABS (2019c), ABS (2019m)

Table 1 1.2b Australian employment, major infrastructure industries—energy

August reference month	Energy industry						Total Aust employment	Energy industries as % of total employment
	Mining industry							
	Coal mining	Oil and gas extraction	Petroleum and coal product manufacturing	Electricity supply	Gas supply	Total		
	thousands							%
1986 [4]	32.2	1.5	6.0	84.2	9.6	133.5	6 918.5	1.9
1987	39.2	1.7	6.2	72.8	11.2	131.0	7 092.3	1.8
1988	33.2	3.8	5.1	73.8	8.4	124.3	7 353.3	1.7
1989	28.8	3.4	7.5	66.9	10.4	117.2	7 715.3	1.5
1990	28.2	4.5	9.5	62.3	5.2	109.6	7 808.0	1.4
1991	32.6	5.2	6.8	62.6	7.2	114.4	7 620.7	1.5
1992	25.6	6.6	9.2	62.5	8.5	112.4	7 613.4	1.5
1993	29.4	3.2	6.4	54.5	7.9	101.4	7 589.4	1.3
1994	22.3	2.6	7.7	55.7	8.2	96.5	7 861.7	1.2
1995	24.0	4.0	5.2	49.3	7.6	90.1	8 165.9	1.1
1996	20.5	2.6	7.4	38.5	7.7	76.7	8 265.9	0.9
1997	23.1	3.5	9.0	37.7	6.4	79.7	8 250.3	1.0
1998	19.5	5.9	6.6	37.7	5.9	75.5	8 455.2	0.9
1999	18.4	4.0	6.2	38.1	5.7	72.5	8 603.6	0.8
2000	15.5	6.0	10.0	36.5	3.0	71.0	8 911.6	0.8
2001	21.7	3.9	13.6	44.6	4.9	88.7	8 971.9	1.0
2002	17.2	4.7	13.1	37.3	5.9	78.2	9 150.3	0.9
2003	20.8	5.4	6.0	57.1	5.0	94.3	9 327.0	1.0
2004	18.0	5.5	8.1	40.2	4.0	75.8	9 462.1	0.8
2005	27.3	7.3	7.7	45.1	7.3	94.7	9 870.3	1.0
2006	28.6	8.7	9.8	36.0	6.6	89.8	10 105.8	0.9
2007	24.6	10.6	6.7	39.8	10.0	91.6	10 406.4	0.9
2008	33.3	14.0	5.6	44.7	10.8	108.4	10 710.4	1.0
2009	39.6	11.6	6.2	61.1	9.3	127.8	10 707.3	1.2
2010	42.0	15.3	6.6	67.7	7.6	139.3	10 973.8	1.3
2011	50.9	14.1	11.0	60.4	9.7	146.1	11 127.2	1.3
2012	46.7	16.9	11.8	70.8	10.9	157.0	11 264.1	1.4
2013	51.5	19.8	6.8	58.6	22.5	159.2	11 361.4	1.4
2014	38.5	24.9	6.5	63.7	15.5	149.0	11 572.8	1.3
2015	45.0	35.5	9.2	62.8	14.3	167.0	11 702.6	1.4
2016	52.2	21.9	3.6	59.9	13.8	151.5	11 904.7	1.3
2017	45.6	22.1	11.1	57.2	11.5	147.4	12 245.3	1.2
2018	55.3	24.7	7.9	66.4	12.0	166.3	12 547.1	1.3
2019	46.1	26.1	7.1	64.8	16.1	160.2	12 859.4	1.2

See end notes.
Source: ABS (2019m).

Table 1 1.2c Australian employment, major infrastructure industries—communication

August reference month	Communication services industry			Total Aust employment	Communication services industry as % of total employment
	Telecommunication services	Internet service providers, web search portals and data processing services	Total		
	thousands				%
1986 [4]	79.0	7.7	86.7	6 918.5	1.3
1987	73.8	7.5	81.4	7 092.3	1.1
1988	71.4	7.5	78.9	7 353.3	1.1
1989	73.8	7.9	81.7	7 715.3	1.1
1990	76.7	8.3	85.0	7 808.0	1.1
1991	70.4	7.9	78.3	7 620.7	1.0
1992	61.7	7.4	69.1	7 613.4	0.9
1993	60.7	7.4	68.0	7 589.4	0.9
1994	74.9	9.6	84.4	7 861.7	1.1
1995	80.0	11.1	91.1	8 165.9	1.1
1996	92.1	12.8	104.8	8 265.9	1.3
1997	75.5	13.0	88.5	8 250.3	1.1
1998	70.3	14.4	84.7	8 455.2	1.0
1999	73.0	14.0	87.0	8 603.6	1.0
2000	88.7	20.3	109.0	8 911.6	1.2
2001	85.4	19.3	104.7	8 971.9	1.2
2002	85.6	20.7	106.3	9 150.3	1.2
2003	92.5	20.5	113.0	9 327.0	1.2
2004	88.2	18.6	106.8	9 462.1	1.1
2005	96.4	19.9	116.3	9 870.3	1.2
2006	97.9	21.6	119.5	10 105.8	1.2
2007	96.7	22.8	119.5	10 406.4	1.1
2008	96.5	15.9	112.4	10 710.4	1.0
2009	85.2	7.1	92.4	10 707.3	0.9
2010	89.7	8.0	97.7	10 973.8	0.9
2011	89.9	8.6	98.5	11 127.2	0.9
2012	102.3	7.6	109.9	11 264.1	1.0
2013	87.1	6.0	93.1	11 361.4	0.8
2014	103.1	7.8	110.9	11 572.8	1.0
2015	91.0	10.7	101.7	11 702.6	0.9
2016	101.6	11.3	112.8	11 904.7	0.9
2017	95.2	9.6	104.7	12 245.3	0.9
2018	105.7	5.7	111.4	12 547.1	0.9
2019	91.2	8.3	99.5	12 859.4	0.8

See end notes.
Source: ABS (2019m).

Table 1 1.2d Australian employment, major infrastructure industries—water

August reference month	Water supply, sewerage and drainage services	Total Aust employment	Water supply, sewerage and drainage services industry as % of total employment
	thousands		%
1986 [4]	43.7	6 918.5	0.6
1987	35.7	7 092.3	0.5
1988	31.8	7 353.3	0.4
1989	35.5	7 715.3	0.5
1990	36.5	7 808.0	0.5
1991	32.7	7 620.7	0.4
1992	33.7	7 613.4	0.4
1993	32.1	7 589.4	0.4
1994	28.5	7 861.7	0.4
1995	27.7	8 165.9	0.3
1996	21.7	8 265.9	0.3
1997	22.0	8 250.3	0.3
1998	25.6	8 455.2	0.3
1999	23.0	8 603.6	0.3
2000	25.2	8 911.6	0.3
2001	20.5	8 971.9	0.2
2002	23.2	9 150.3	0.3
2003	18.7	9 327.0	0.2
2004	23.9	9 462.1	0.3
2005	26.0	9 870.3	0.3
2006	29.8	10 105.8	0.3
2007	25.2	10 406.4	0.2
2008	35.3	10 710.4	0.3
2009	28.2	10 707.3	0.3
2010	37.5	10 973.8	0.3
2011	32.5	11 127.2	0.3
2012	37.3	11 264.1	0.3
2013	29.3	11 361.4	0.3
2014	29.0	11 572.8	0.3
2015	33.1	11 702.6	0.3
2016	21.9	11 904.7	0.2
2017	33.6	12 245.3	0.3
2018	29.6	12 547.1	0.2
2019	34.2	12 859.4	0.3

See end notes.
Source: ABS (2019m).

Table 11.2e In-house transport employment, by industry

Financial year	Agri-culture, forestry and fishing	Mining	Manu-facturing	Electricity, gas, water and waste services	Cons-truction	Whole-sale trade	Retail trade	Accomm-odation and food services	Information media and telecomm-unications	Financial and insurance services
	thousands									
2010–11	88	21	33	8	85	17	26	7	8	10
2011–12	93	26	33	9	94	20	31	7	8	11
2012–13	86	28	33	11	88	20	29	7	8	12
2013–14	88	31	32	10	87	19	28	7	6	12
2014–15	82	25	31	11	78	16	25	6	6	12
2015–16	88	22	31	11	73	14	24	6	6	13

Financial year	Rental, hiring and real estate services	Pro-fessional, scientific and technical services	Admin-istrative and support services	Public admin-istration and safety	Education and training	Health care and social assistance	Arts and recreation services	Other Services	Total (excluding Transport, postal and ware-housing)'
				thousands					
2010–11	7	17	6	45	7	9	13	4	411
2011–12	8	18	6	49	7	12	14	5	451
2012–13	7	18	6	45	7	12	14	5	436
2013–14	6	18	6	50	7	12	11	5	435
2014–15	7	18	5	48	6	11	14	5	406
2015–16	6	19	5	44	7	11	15	5	400

Note: In-house transport refers to transport activities undertaken outside of the transport, postal and warehousing industry (for example retailers using their own vehicles). This encapsulates both own-account (or 'ancillary') production, which is not intended for market, and is consumed in the production of the industry's primary input, as well as secondary production of transport on a fee for-hire basis.

Source: ABS (2019m).

Table 1 1.3a Australian average weekly earnings, transport industry (2017–18 prices, adjusted by CPI)

May reference month	Road	Rail	Water	Air and space	Other transport	All industries
			$			
1996	1 030.17	1 342.92	1 126.96	1 407.73	818.92	965.70
1998	1 070.44	1 402.94	1 767.91	1 698.28	[b] 786.42	1 016.47
2000	1 028.87	1 504.84	1 750.02	1 741.54		1 044.06
2002	1 106.48	1 505.60	1 274.89	1 466.61		1 022.49
2004	1 089.32	1 598.73	[b] 1 230.85	1 479.91		1 053.80
1905	1 187.45	1 873.52	1 424.28	1 537.61		1 075.04
2008	1 190.29	1 684.98	1 720.90	1 608.25	1 353.31	1 121.89
2010	1 120.41	1 849.37	2 130.65	1 954.85	716.19	1 137.63
2012	1 152.05	2 021.96	1 717.90	1 807.58	1 327.95	1 207.74
2014	1 264.60	1 996.78	1 893.20	1 570.37	[b] 1 097.94	1 213.50
2016	1 266.14	2 076.78	np	1 846.23	1 261.70	1 232.96
2018	1 320.77	1 956.86	1 527.93	1 849.16	[b] 1 481.73	1 246.35

See end notes.

[b] Use estimate with caution as it is subject to a relative standard error between 25 per cent and 50 per cent.

Source: ABS (2019f), ABS (2019g) and unpublished data.

Table 1 1.3b Australian average weekly earnings, energy industry (2017–18 prices, adjusted by CPI)

May reference month	Electricity supply	Gas supply	All industries
		$	
1996	1 365.14	1 285.19	965.70
1998	1 593.67	1 388.78	1 016.47
2000	1 709.55	1 460.05	1 044.06
2002	1 666.24	1 603.36	1 022.49
2004	1 705.72	1 566.70	1 053.80
1905	1 779.67	1 495.26	1 075.04
2008	1 862.96	2 211.67	1 121.89
2010	2 018.96	1 513.60	1 137.63
2012	2 136.47	2 291.80	1 207.74
2014	2 190.16	1 915.35	1 213.50
2016	2 149.46	2 082.98	1 232.96
2018	2 066.95	1 940.57	1 246.35

See end notes.

Source: ABS (2019f), ABS (2019g) and unpublished data.

Table 1 1.3c Australian average weekly earnings, communication industry (2017–18 prices, adjusted by CPI)

May reference month	Telecommunication services	Radio and television services	Broadcasting (except internet)	Internet service providers, web search portals and data processing services	All industries
			$		
1996	1 357.90	1 169.04			965.70
1998	1 623.49	1 446.58			1 016.47
2000	1 700.28	1 591.04			1 044.06
2002	1 616.12	1 333.52			1 022.49
2004	1 540.93	1 341.87			1 053.80
2006	1 596.29	1 554.99			1 075.04
2008	1 630.19		1 497.33		1 121.89
2010	1 677.80		1 579.82		1 137.63
2012	1 647.11		1 613.00	1 477.69	1 207.74
2014	1 899.88		1 731.41	1 424.91	1 213.50
2016	2 111.41		1 670.06	1 251.67	1 232.96
2018	2 062.78		1 589.54	1 278.74	1 246.35

See end notes.

Source: ABS (2019f), ABS (2019g) and unpublished data.

Table 1 1.3d Australian average weekly earnings, water industry (2017–18 prices, adjusted by CPI)

May reference month	Water supply, sewerage and drainage services	All industries
	$	$
1996	1 232.84	965.70
1998	1 345.47	1 016.47
2000	1 289.72	1 044.06
2002	1 498.56	1 022.49
2004	1 421.82	1 053.80
2006	1 404.94	1 075.04
2008	1 385.91	1 121.89
2010	1 653.65	1 137.63
2012	1 772.02	1 207.74
2014	1 612.14	1 213.50
2016	1 700.77	1 232.96
2018	1 834.35	1 246.35

See end notes.

Source: ABS (2019f), ABS (2019g) and unpublished data.

Table 1 1.4a Australian producer price indexes, transport industry

Financial year	Transport					Water transport support services			Airport operations and other air transport support services	Customs agency services
	Road freight	Rail freight	Water freight	Pipeline transport	Postal and courier services	Steve-doring services	Port and water transport terminal operations	Other water transport support services		
	base of each index: 2011–12 = 100									
1997–98	64.8	76.1				102.0				
1998–99	65.6	72.4	90.7			100.3		74.4	94.3	82.3
1999–00	66.2	68.3	94.2			100.3		69.6	91.7	82.3
2000–01	67.6	69.0	99.7	72.2		98.1		69.7	87.1	83.7
2001–02	68.8	68.6	99.3	73.0	77.6	95.9	62.8	69.7	86.3	84.1
2002–03	70.4	68.6	96.5	73.3	79.1	93.7	63.2	72.8	91.2	85.6
2003–04	72.3	69.2	95.5	72.1	80.5	92.1	63.1	73.8	90.7	86.6
2004–05	75.9	70.0	103.8	76.5	82.2	95.4	66.1	75.1	91.5	88.2
2005–06	80.6	70.9	101.0	76.2	84.1	94.6	67.5	75.0	95.1	90.1
2006–07	83.2	72.4	100.3	76.4	85.7	98.9	72.9	80.5	94.2	90.9
2007–08	86.4	73.8	98.5	79.4	86.6	97.2	75.9	80.1	96.9	91.7
2008–09	92.5	80.3	108.9	89.5	90.2	98.9	80.0	81.2	97.3	94.1
2009–10	92.0	86.8	99.3	92.5	91.5	100.4	89.9	88.3	98.6	95.0
2010–11	95.9	91.8	97.3	96.6	96.4	99.6	96.2	96.9	99.2	96.4
2011–12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2012–13	104.2	101.9	107.8	103.1	101.6	102.4	108.6	103.8	102.7	100.3
2013–14	106.3	102.6	104.2	102.6	107.7	103.0	110.7	109.1	106.4	102.8
2014–15	107.2	100.5	101.3	102.7	112.7	102.2	113.0	112.4	109.2	102.7
2015–16	105.5	101.7	103.9	103.3	119.9	101.9	113.8	114.8	111.7	100.8
2016–17	106.5	111.4	92.6	102.1	128.7	101.2	115.8	114.4	113.5	95.3
2017–18	108.6	120.9	90.5	106.2	134.4	100.6	119.9	143.0	116.3	91.4
2018–19	111.6	123.3	96.9	109.7	140.2	99.6	122.7	157.2	118.4	94.0

Note: Data are not readily available for missing years.
Source: ABS (2019p).

Table 11.4b Australian producer price indexes, communications industry

Financial year	Data processing and web hosting services	Electronic information storage services
	base of each index 2011–12 = 100	
1999–00		109.6
2000–01		104.1
2001–02	83.7	103.8
2002–03	85.1	102.8
2003–04	86.1	105.3
2004–05	86.4	105.5
2005–06	91.8	107.4
2006–07	93.4	103.5
2007–08	94.2	102.1
2008–09	95.2	101.9
2009–10	95.7	99.9
2010–11	98.7	98.6
2011–12	100.0	100.0
2012–13	103.0	98.1
2013–14	105.4	99.2
2014–15	106.6	99.5
2015–16	106.8	98.5
2016–17	107.3	98.4
2017–18	107.7	98.7
2018–19	108.5	98.3

Note: Data are not readily available for missing years.
Source: ABS (2019p).

Table 1 1.5a Australian population, by state/territory—capital city

Financial year	NSW – Greater Sydney	VIC – Greater Melbourne	QLD – Greater Brisbane	SA – Greater Adelaide	WA – Greater Perth	TAS – Greater Hobart	NT – Greater Darwin	ACT – Greater Captial City
1973–74	3 063 300	2 632 100	967 400	892 700	775 000	157 800	46 700	197 400
1974–75	3 082 500	2 658 800	979 000	905 100	799 600	160 600	25 700	209 900
1975–76	3 143 800	2 723 700	1 000 900	924 000	832 800	164 400	44 200	226 500
1976–77	3 168 100	2 740 800	1 012 200	934 200	851 800	165 800		232 600
1977–78	3 197 700	2 757 200	1 028 300	942 900	869 000	167 300		236 900
1978–79	3 226 800	2 771 000	1 046 400	944 800	882 900	168 400		239 700
1979–80	3 257 500	2 787 400	1 063 300	948 000	899 400	169 400		243 200
1980–81	3 279 500	2 806 300	1 096 200	953 700	922 000	171 100	56 400	246 500
1981–82	3 318 700	2 833 800	1 128 700	962 500	952 400	172 200	61 800	252 100
1982–83	3 350 700	2 861 700	1 148 300	973 400	976 800	173 400	65 100	258 400
1983–84	3 382 900	2 884 600	1 161 200	984 300	995 600	175 500	68 900	265 200
1984–85	3 425 200	2 909 100	1 176 500	994 000	1 018 200	177 500	72 200	272 300
1985–86	3 471 567	2 966 901	1 217 348	1 003 548	1 050 120	182 071	75 360	257 852
1986–87	3 528 486	3 003 582	1 238 378	1 011 904	1 079 603	183 321	77 047	264 405
1987–88	3 590 980	3 042 608	1 264 491	1 021 117	1 110 469	184 186	75 888	271 044
1988–89	3 622 859	3 085 580	1 300 218	1 033 471	1 147 375	185 938	76 025	275 334
1989–90	3 643 660	3 125 919	1 330 879	1 044 602	1 175 362	189 039	76 542	281 099
1990–91	3 672 855	3 155 576	1 357 993	1 056 561	1 188 762	190 739	86 415	288 195
1991–92	3 710 168	3 182 441	1 388 383	1 065 647	1 207 350	192 439	87 836	293 554
1992–93	3 734 809	3 197 927	1 422 783	1 068 616	1 225 552	193 627	89 908	298 222
1993–94	3 769 641	3 213 021	1 455 195	1 071 672	1 246 266	194 519	91 133	301 131
1994–95	3 821 233	3 243 707	1 486 730	1 074 679	1 271 738	195 026	93 238	304 463
1995–96	3 881 136	3 283 278	1 500 803	1 078 437	1 295 092	195 718	95 829	307 917
1996–97	3 928 658	3 309 601	1 524 315	1 083 906	1 316 274	195 976	98 891	308 700
1997–98	3 969 649	3 342 230	1 548 584	1 090 526	1 334 992	195 913	101 165	309 539
1998–99	4 019 954	3 379 714	1 572 204	1 096 934	1 355 373	196 011	103 064	311 967
1999–00	4 069 093	3 422 722	1 598 585	1 102 445	1 372 947	196 468	105 113	314 848
2000–01	4 128 272	3 471 625	1 663 120	1 107 986	1 393 002	197 282	106 842	318 939
2001–02	4 162 999	3 523 946	1 701 606	1 114 990	1 413 867	197 931	107 443	322 316
2002–03	4 162 593	3 594 031	1 780 650	1 162 250	1 496 016	199 788	108 433	327 357
2003–04	4 184 763	3 641 951	1 823 496	1 168 541	1 520 232	201 771	109 211	328 940
2004–05	4 217 563	3 697 372	1 866 210	1 177 345	1 544 977	203 288	111 388	331 399
2005–06	4 256 161	3 760 760	1 908 265	1 189 243	1 576 912	204 753	113 461	335 170
2006–07	4 325 525	3 841 760	1 958 907	1 204 210	1 628 467	206 649	116 935	342 644
2007–08	4 409 562	3 931 438	2 012 204	1 219 523	1 682 860	209 166	121 210	348 368
2008–09	4 492 380	4 031 787	2 068 479	1 237 354	1 739 342	212 085	125 315	354 785
2009–10	4 555 516	4 105 857	2 108 348	1 253 097	1 781 132	214 669	127 829	361 766
2010–11	4 608 949	4 169 366	2 147 436	1 264 091	1 833 567	216 273	129 106	367 985
2011–12	4 676 118	4 252 458	2 193 316	1 278 600	1 904 858	216 921	132 321	375 183
2012–13	4 755 029	4 343 568	2 235 774	1 291 206	1 970 005	217 977	137 370	380 914
2013–14	4 837 661	4 437 903	2 273 474	1 304 637	2 008 061	219 240	139 621	385 346
2014–15	4 922 561	4 533 866	2 308 564	1 316 983	2 039 136	221 016	142 482	391 274
2015–16	5 029 768	4 725 316	2 360 241	1 324 279	2 022 044	224 462	145 916	403 468
2016–17	5 131 326	4 850 740	2 408 223	1 333 927	2 043 138	226 884	146 612	412 025
2017–18	5 230 330	4 963 349	2 462 637	1 345 777	2 059 484	232 606	148 564	420 960

See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2019q).

Table 1 1.5b Australian population, by state/territory—rest of state

Financial year	NSW – Rest of state	VIC – Rest of state	QLD – Rest of state	SA – Rest of state	WA – Rest of state	TAS – Rest of state	NT – Rest of state	ACT – Rest of state
1973–74	1 830 753	1 123 626	1 040 940	348 838	352 598	248 351	56 224	
1974–75	1 849 516	1 128 641	1 072 362	360 164	355 348	249 488	67 169	
1975–76	1 815 788	1 086 726	1 091 475	350 070	345 542	247 914	54 028	
1976–77	1 833 788	1 096 564	1 117 639	351 919	352 566	249 232		
1977–78	1 856 090	1 106 559	1 143 747	353 305	358 851	250 342		
1978–79	1 884 330	1 115 406	1 168 371	356 309	363 711	252 356		
1979–80	1 914 027	1 126 903	1 202 635	360 397	369 668	254 190		
1980–81	1 955 389	1 140 617	1 249 008	365 069	378 056	256 124	66 216	
1981–82	1 984 880	1 159 070	1 295 886	368 608	386 499	257 645	68 514	
1982–83	2 002 259	1 174 002	1 333 982	372 375	392 250	259 405	70 816	
1983–84	2 019 829	1 191 892	1 362 659	375 748	395 637	262 260	73 254	
1984–85	2 039 312	1 210 968	1 394 718	377 197	400 364	265 328	76 336	
1985–86	2 059 959	1 193 955	1 407 247	379 002	408 899	264 402	79 061	
1986–87	2 088 250	1 206 529	1 436 729	380 860	416 645	265 905	81 158	
1987–88	2 116 329	1 219 961	1 475 416	383 792	424 698	266 962	83 138	
1988–89	2 153 424	1 234 584	1 527 419	385 558	431 059	269 320	85 154	
1989–90	2 190 361	1 252 673	1 568 404	387 454	437 687	273 149	87 186	
1990–91	2 225 876	1 264 797	1 602 958	389 738	447 305	276 063	79 078	1 125
1991–92	2 252 401	1 272 561	1 641 567	390 865	450 695	277 387	80 250	1 120
1992–93	2 270 071	1 274 460	1 687 005	392 058	452 117	278 032	80 826	1 080
1993–94	2 290 549	1 274 549	1 731 918	394 466	456 743	278 420	82 242	355
1994–95	2 305 748	1 273 680	1 778 379	394 750	462 049	278 647	84 314	342
1995–96	2 323 592	1 276 877	1 837 887	395 816	470 164	278 725	86 014	334
1996–97	2 348 303	1 287 600	1 870 356	397 451	478 718	277 629	88 021	342
1997–98	2 369 422	1 295 590	1 899 141	399 026	487 676	276 054	88 715	349
1998–99	2 391 416	1 306 688	1 929 217	400 885	494 360	275 419	89 671	359
1999–00	2 417 120	1 318 617	1 962 952	402 593	501 512	274 941	90 448	367
2000–01	2 446 945	1 333 101	1 965 826	403 742	508 157	274 513	90 926	378
2001–02	2 465 952	1 339 138	2 013 192	406 137	512 244	274 835	91 968	359
2002–03	2 458 122	1 279 778	1 962 471	358 149	456 725	278 746	93 292	
2003–04	2 465 972	1 285 198	2 006 474	359 648	459 310	281 407	93 452	
2004–05	2 475 643	1 291 874	2 052 284	361 459	466 230	282 914	94 517	
2005–06	2 486 529	1 300 506	2 099 727	363 286	473 669	284 549	95 596	
2006–07	2 508 631	1 311 762	2 152 111	366 409	477 672	286 613	96 813	
2007–08	2 533 899	1 324 937	2 207 301	369 142	488 840	289 402	98 664	
2008–09	2 561 375	1 340 147	2 260 292	371 548	500 908	292 268	100 712	
2009–10	2 588 776	1 355 244	2 296 396	374 225	509 713	294 178	101 949	
2010–11	2 609 580	1 368 451	2 329 342	375 523	519 842	295 210	102 186	
2011–12	2 631 065	1 380 063	2 374 889	377 435	533 136	295 185	103 560	
2012–13	2 652 034	1 389 977	2 415 585	379 068	545 382	295 090	105 199	
2013–14	2 675 757	1 400 207	2 446 451	380 913	548 985	295 486	103 747	
2014–15	2 698 778	1 412 639	2 470 080	381 890	550 801	295 576	102 175	
2015–16	2 709 506	1 453 933	2 488 636	388 775	536 907	293 126	99 824	
2016–17	2 729 742	1 472 866	2 520 234	389 621	537 216	293 993	99 493	
2017–18	2 757 911	1 497 326	2 548 579	390 645	535 708	295 595	98 763	

See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2019q).

Table 11.5c Australian population, by state/territory—total

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
1973–74	4 894 053	3 755 726	2 008 340	1 241 538	1 127 598	406 151	102 924	186 241
1974–75	4 932 016	3 787 441	2 051 362	1 265 264	1 154 948	410 088	92 869	199 007
1975–76	4 959 588	3 810 426	2 092 375	1 274 070	1 178 342	412 314	98 228	207 740
1976–77	5 001 888	3 837 364	2 129 839	1 286 119	1 204 366	415 032	103 938	213 688
1977–78	5 053 790	3 863 759	2 172 047	1 296 205	1 227 851	417 642	109 980	217 981
1978–79	5 111 130	3 886 406	2 214 771	1 301 109	1 246 611	420 756	114 149	220 797
1979–80	5 171 527	3 914 303	2 265 935	1 308 397	1 269 068	423 590	118 245	224 291
1980–81	5 234 889	3 946 917	2 345 208	1 318 769	1 300 056	427 224	122 616	227 581
1981–82	5 303 580	3 992 870	2 424 586	1 331 108	1 338 899	429 845	130 314	233 045
1982–83	5 352 959	4 035 702	2 482 282	1 345 775	1 369 050	432 805	135 916	238 983
1983–84	5 402 729	4 076 492	2 523 859	1 360 048	1 391 237	437 760	142 154	245 112
1984–85	5 464 512	4 120 068	2 571 218	1 371 197	1 418 564	442 828	148 536	251 389
1985–86	5 531 526	4 160 856	2 624 595	1 382 550	1 459 019	446 473	154 421	258 910
1986–87	5 616 736	4 210 111	2 675 107	1 392 764	1 496 248	449 226	158 205	265 477
1987–88	5 707 309	4 262 569	2 739 907	1 404 909	1 535 167	451 148	159 026	272 129
1988–89	5 776 283	4 320 164	2 827 637	1 419 029	1 578 434	455 258	161 179	276 432
1989–90	5 834 021	4 378 592	2 899 283	1 432 056	1 613 049	462 188	163 728	282 211
1990–91	5 898 731	4 420 373	2 960 951	1 446 299	1 636 067	466 802	165 493	289 320
1991–92	5 962 569	4 455 002	3 029 950	1 456 512	1 658 045	469 826	168 086	294 674
1992–93	6 004 880	4 472 387	3 109 788	1 460 674	1 677 669	471 659	170 734	299 302
1993–94	6 060 190	4 487 570	3 187 113	1 466 138	1 703 009	472 939	173 375	301 486
1994–95	6 126 981	4 517 387	3 265 109	1 469 429	1 733 787	473 673	177 552	304 805
1995–96	6 204 728	4 560 155	3 338 690	1 474 253	1 765 256	474 443	181 843	308 251
1996–97	6 276 961	4 597 201	3 394 671	1 481 357	1 794 992	473 605	186 912	309 042
1997–98	6 339 071	4 637 820	3 447 725	1 489 552	1 822 668	471 967	189 880	309 888
1998–99	6 411 370	4 686 402	3 501 421	1 497 819	1 849 733	471 430	192 735	312 326
1999–00	6 486 213	4 741 339	3 561 537	1 505 038	1 874 459	471 409	195 561	315 215
2000–01	6 575 217	4 804 726	3 628 946	1 511 728	1 901 159	471 795	197 768	319 317
2001–02	6 628 951	4 863 084	3 714 798	1 521 127	1 926 111	472 766	199 411	322 675
2002–03	6 620 715	4 873 809	3 743 121	1 520 399	1 952 741	478 534	201 725	327 357
2003–04	6 650 735	4 927 149	3 829 970	1 528 189	1 979 542	483 178	202 663	328 940
2004–05	6 693 206	4 989 246	3 918 494	1 538 804	2 011 207	486 202	205 905	331 399
2005–06	6 742 690	5 061 266	4 007 992	1 552 529	2 050 581	489 302	209 057	335 170
2006–07	6 834 156	5 153 522	4 111 018	1 570 619	2 106 139	493 262	213 748	342 644
2007–08	6 943 461	5 256 375	4 219 505	1 588 665	2 171 700	498 568	219 874	348 368
2008–09	7 053 755	5 371 934	4 328 771	1 608 902	2 240 250	504 353	226 027	354 785
2009–10	7 144 292	5 461 101	4 404 744	1 627 322	2 290 845	508 847	229 778	361 766
2010–11	7 218 529	5 537 817	4 476 778	1 639 614	2 353 409	511 483	231 292	367 985
2011–12	7 307 183	5 632 521	4 568 205	1 656 035	2 437 994	512 106	235 881	375 183
2012–13	7 407 063	5 733 545	4 651 359	1 670 274	2 515 387	513 067	242 569	380 914
2013–14	7 513 418	5 838 110	4 719 925	1 685 550	2 557 046	514 726	243 368	385 346
2014–15	7 621 339	5 946 505	4 778 644	1 698 873	2 589 937	516 592	244 657	391 274
2015–16	7 739 274	6 179 249	4 848 877	1 713 054	2 558 951	517 588	245 740	403 468
2016–17	7 867 936	6 321 606	4 927 629	1 723 923	2 574 193	522 410	247 517	412 025
2017–18	7 988 241	6 460 675	5 011 216	1 736 422	2 595 192	528 201	247 327	420 960

See end notes.

Source: ABS (2019q).

Table 1 1.6 Key indicators influencing Australian infrastructure

Financial year			Rate at close of financial year	
	Goods exports	Goods imports	Exchange rate	Interest rate
	$ million – chain volume measures		*1 $A=$US*	*%*
1973–74	33 587	22 914	1.5	18.8
1974–75	36 188	23 367	1.3	8.8
1975–76	38 240	21 685	1.2	10.3
1976–77	41 315	24 385	1.1	11.0
1977–78	42 128	22 975	1.1	10.6
1978–79	44 413	25 079	1.1	10.3
1979–80	47 878	25 472	1.2	13.8
1980–81	44 210	27 845	1.1	15.6
1981–82	45 251	31 180	1.0	18.6
1982–83	45 525	27 682	0.9	14.2
1983–84	49 252	29 287	0.9	12.8
1984–85	57 516	34 255	0.7	15.8
1985–86	59 577	35 219	0.7	14.7
1986–87	65 278	33 443	0.7	13.7
1987–88	69 294	36 812	0.8	13.1
1988–89	68 350	46 380	0.8	18.4
1989–90	72 146	48 545	0.8	15.0
1990–91	80 763	46 127	0.8	10.4
1991–92	89 031	48 140	0.7	6.4
1992–93	94 167	52 137	0.7	5.2
1993–94	102 300	55 767	0.7	5.1
1994–95	104 742	66 321	0.7	7.6
1995–96	115 828	69 447	0.8	7.6
1996–97	130 008	76 931	0.7	5.4
1997–98	136 330	86 350	0.6	5.3
1998–99	137 870	91 315	0.7	4.9
1999–00	152 396	104 405	0.6	6.2
2000–01	161 591	103 410	0.5	5.0
2001–02	162 674	106 760	0.6	5.1
2002–03	163 289	123 952	0.7	4.7
2003–04	164 509	138 503	0.7	5.5
2004–05	170 698	156 558	0.8	5.7
2005–06	174 173	170 983	0.7	6.0
2006–07	178 488	188 188	0.8	6.4
2007–08	184 567	212 508	1.0	7.8
2008–09	188 298	204 915	0.8	3.3
2009–10	202 157	217 467	0.9	4.9
2010–11	204 838	237 064	1.1	5.0
2011–12	217 816	266 615	1.0	3.5
2012–13	231 630	262 310	0.9	2.8
2013–14	245 650	257 742	0.9	2.7
2014–15	261 316	263 696	0.8	2.2
2015–16	278 191	264 212	0.7	2.0
2016–17	291 464	277 832	0.8	1.7
2017–18	302 117	297 030	0.7	2.1
2018–19	308 710	295 712	0.7	1.2

See end notes.
Source: ABS (2019e), RBA (2019).

CHAPTER 2
Infrastructure construction

Table 1 2.1a Value of major infrastructure engineering construction work done, by the private sector for the private sector, adjusted by chain volume index, 2016–17 prices

Financial year	Transport	Energy	Telecommunications	Water	Total infrastructure engineering construction work done
			$ million		
1987–88	1 932.1	463.4	16.2	273.6	2 685.3
1988–89	2 202.8	433.2	17.1	288.0	2 941.1
1989–90	2 575.6	334.6	13.7	280.4	3 204.3
1990–91	2 269.4	335.5	18.1	399.6	3 022.6
1991–92	2 231.0	399.0	13.7	233.3	2 877.1
1992–93	2 049.3	532.4	138.1	312.1	3 031.9
1993–94	2 511.5	580.2	164.6	505.0	3 761.2
1994–95	2 288.0	652.7	141.8	663.1	3 745.6
1995–96	2 340.3	1 363.1	370.6	766.3	4 840.3
1996–97	3 142.9	1 227.5	314.4	371.2	5 056.0
1997–98	4 195.9	1 677.9	125.3	449.9	6 449.0
1998–99	4 753.1	2 116.8	204.1	407.3	7 481.2
1999–00	3 664.8	3 161.8	626.3	574.9	8 027.8
2000–01	2 542.7	2 930.6	1 086.0	650.1	7 209.4
2001–02	3 328.9	3 156.8	618.5	506.6	7 610.8
2002–03	5 304.7	3 696.7	588.4	736.1	10 325.9
2003–04	7 317.1	4 607.0	1 238.8	1 245.2	14 408.1
2004–05	9 815.3	4 308.5	1 416.6	992.4	16 532.8
2005–06	10 062.3	4 177.6	1 755.9	1 112.6	17 108.4
2006–07	9 895.2	5 211.6	4 555.2	1 118.5	20 780.4
2007–08	9 693.9	5 403.0	5 470.3	2 044.5	22 611.6
2008–09	10 038.6	7 026.3	4 536.1	1 872.2	23 473.2
2009–10	8 872.5	6 075.7	4 214.0	2 595.1	21 757.3
2010–11	11 537.8	6 674.5	4 064.6	4 034.4	26 311.3
2011–12	16 464.9	7 821.8	4 792.8	2 973.8	32 053.3
2012–13	17 946.9	11 790.1	4 823.4	2 203.8	36 764.2
2013–14	14 043.6	12 134.3	5 015.3	1 852.0	33 045.1
2014–15	10 127.2	10 170.3	4 770.2	1 363.5	26 431.2
2015–16	6 093.2	7 324.2	5 050.2	1 161.0	19 628.6
2016–17	6 420.4	5 887.1	6 210.2	1 172.6	19 690.3
2017–18	6 979.8	11 465.7	5 607.8	1 869.1	25 922.4
2018–19	8 452.6	11 717.2	4 104.5	1 540.3	25 814.6

Source: ABS (2019h).

Table 12.1b Value of major infrastructure engineering construction work done, by the private sector for the public sector, adjusted by chain volume index, 2016–17 prices

Financial year	Transport	Energy	Telecommunications	Water	Total infrastructure engineering construction work done
			$ million		
1987–88	2 174.2	1 019.6	64.3	844.2	4 102.4
1988–89	1 975.6	1 000.0	14.6	681.9	3 672.2
1989–90	2 282.8	930.3	22.6	699.4	3 935.1
1990–91	2 543.7	1 356.1	42.7	885.5	4 828.0
1991–92	2 519.5	1 435.0	61.9	913.5	4 929.9
1992–93	3 155.6	1 228.8	45.4	899.4	5 329.3
1993–94	3 903.2	1 123.5	61.2	1 157.4	6 245.3
1994–95	3 643.9	920.6	23.4	879.2	5 467.1
1995–96	3 487.5	1 004.0	49.6	802.6	5 343.7
1996–97	4 080.6	1 126.0	13.4	724.7	5 944.8
1997–98	4 941.5	802.2	60.0	774.4	6 578.1
1998–99	5 614.3	488.7	40.5	895.6	7 039.0
1999–00	5 171.9	532.4	236.0	1 531.7	7 472.1
2000–01	4 736.2	481.0	453.1	1 280.1	6 950.5
2001–02	4 001.8	631.1	548.1	943.3	6 124.3
2002–03	4 103.5	732.4	465.4	1 003.6	6 304.9
2003–04	4 259.9	454.1	71.5	1 460.7	6 246.3
2004–05	5 672.8	764.2	244.2	1 641.1	8 322.3
2005–06	6 410.3	1 037.2	84.1	1 447.0	8 978.5
2006–07	6 904.2	655.6	50.1	1 609.0	9 219.0
2007–08	7 564.8	535.7	30.0	4 995.7	13 126.1
2008–09	9 980.0	748.9	55.7	4 803.6	15 588.2
2009–10	10 076.1	1 048.0	196.9	4 753.8	16 074.8
2010–11	12 041.6	1 099.6	297.2	3 478.5	16 916.9
2011–12	13 029.1	1 259.7	573.4	2 826.0	17 688.2
2012–13	12 740.1	1 539.8	1 269.5	2 168.6	17 717.9
2013–14	11 269.5	1 293.2	2 138.9	1 754.9	16 456.4
2014–15	9 856.7	721.6	2 760.0	1 222.5	14 560.7
2015–16	10 931.1	526.5	3 847.0	1 083.0	16 387.5
2016–17	13 434.1	397.8	5 027.4	1 186.6	20 045.9
2017–18	18 235.9	432.4	4 666.1	1 580.5	24 914.9
2018–19	15 005.0	340.2	5 046.1	1 341.5	21 732.7

Source: ABS (2019h).

Table 1 2.1c Value of major infrastructure engineering construction work done, by the public sector, adjusted by chain volume index, 2016–17 prices

Financial year	Transport	Energy	Telecommunications	Water	Total infrastructure engineering construction work done
			$ million		
1987–88	3 417.5	1 636.2	3 896.2	1 602.4	10 552.3
1988–89	3 271.5	1 622.0	4 189.3	1 592.4	10 675.2
1989–90	3 796.3	2 239.1	4 593.3	1 579.8	12 208.4
1990–91	3 867.1	1 865.7	4 662.0	1 678.5	12 073.3
1991–92	3 484.4	1 670.2	3 546.7	1 565.1	10 266.4
1992–93	4 311.9	1 746.7	3 519.6	1 486.6	11 064.8
1993–94	4 559.2	1 782.6	3 180.8	1 089.3	10 611.9
1994–95	4 765.5	1 833.2	4 275.2	1 069.8	11 943.8
1995–96	5 078.5	1 372.5	4 963.5	826.4	12 240.9
1996–97	4 766.8	1 126.5	4 939.9	637.4	11 470.6
1997–98	4 335.4	1 216.7	5 063.0	812.1	11 427.1
1998–99	4 326.6	1 613.9	5 329.1	935.4	12 205.0
1999–00	4 211.6	1 962.7	6 127.6	1 109.5	13 411.4
2000–01	3 840.3	2 302.5	5 205.5	857.4	12 205.7
2001–02	4 098.9	2 476.7	4 754.3	808.3	12 138.3
2002–03	4 252.7	2 605.9	4 199.4	929.7	11 987.7
2003–04	4 296.8	2 970.4	3 514.4	895.4	11 677.0
2004–05	4 416.2	3 077.0	3 696.4	971.9	12 161.5
2005–06	4 451.7	4 351.3	4 960.5	1 132.5	14 895.9
2006–07	4 995.6	5 392.2	1 856.8	1 568.3	13 813.0
2007–08	5 527.1	5 642.3	8.5	2 085.9	13 263.8
2008–09	6 321.0	6 466.2	8.2	1 956.7	14 752.0
2009–10	6 923.2	6 765.3	11.2	2 689.2	16 388.9
2010–11	6 946.6	6 160.5	6.7	2 947.2	16 061.0
2011–12	6 499.0	6 513.1	5.2	2 874.8	15 892.2
2012–13	5 890.5	5 850.2	10.2	2 943.7	14 694.6
2013–14	4 316.5	4 842.0	8.2	2 396.8	11 563.5
2014–15	3 931.3	4 584.9	1.9	1 829.9	10 347.9
2015–16	4 306.6	3 660.3	11.9	2 186.0	10 164.9
2016–17	4 444.6	2 808.5	6.1	2 356.1	9 615.3
2017–18	4 616.5	2 342.0	10.2	2 670.4	9 639.1
2018–19	4 517.9	2 387.1	7.2	2 890.9	9 803.1

Source: ABS (2019h).

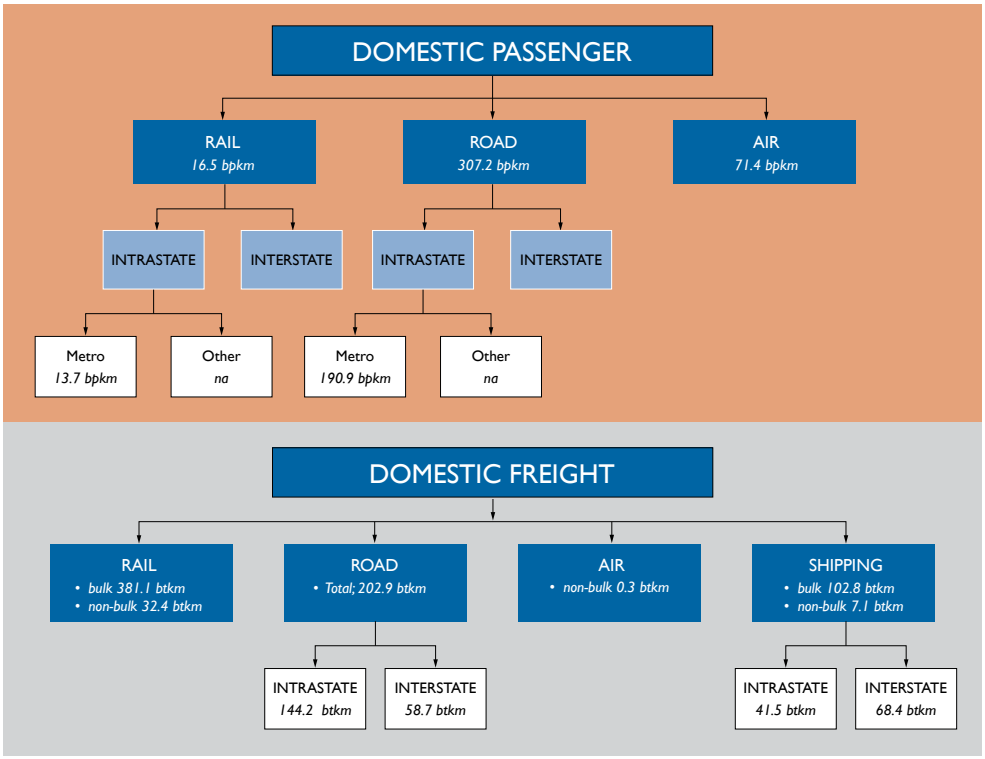
Table 12.1d Total value of major infrastructure engineering construction work done, adjusted by chain volume index, 2016–17 prices

Financial year	Transport	Energy	Telecommunications	Water	Total Infrastructure engineering construction work done
			$ million		
1987–88	7 523.9	3 119.2	3 976.8	2 720.2	17 340.0
1988–89	7 449.9	3 055.2	4 221.1	2 562.3	17 288.5
1989–90	8 654.7	3 504.0	4 629.6	2 559.6	19 347.8
1990–91	8 680.2	3 557.3	4 722.8	2 963.6	19 923.8
1991–92	8 234.9	3 504.2	3 622.4	2 711.9	18 073.4
1992–93	9 516.8	3 507.9	3 703.1	2 698.2	19 425.9
1993–94	10 973.9	3 486.3	3 406.5	2 751.7	20 618.4
1994–95	10 697.3	3 406.6	4 440.5	2 612.1	21 156.5
1995–96	10 906.3	3 739.6	5 383.8	2 395.2	22 424.9
1996–97	11 990.3	3 480.0	5 267.8	1 733.3	22 471.4
1997–98	13 472.9	3 696.7	5 248.2	2 036.4	24 454.2
1998–99	14 694.0	4 219.4	5 573.7	2 238.2	26 725.3
1999–00	13 048.3	5 656.9	6 989.9	3 216.2	28 911.3
2000–01	11 119.2	5 714.1	6 744.6	2 787.6	26 365.6
2001–02	11 429.6	6 264.6	5 920.9	2 258.3	25 873.4
2002–03	13 660.9	7 035.0	5 253.1	2 669.5	28 618.5
2003–04	15 873.8	8 031.5	4 824.7	3 601.3	32 331.3
2004–05	19 904.3	8 149.7	5 357.2	3 605.4	37 016.6
2005–06	20 924.2	9 566.1	6 800.4	3 692.1	40 982.8
2006–07	21 795.0	11 259.4	6 462.1	4 295.8	43 812.4
2007–08	22 785.7	11 581.0	5 508.8	9 126.1	49 001.6
2008–09	26 339.6	14 241.4	4 600.0	8 632.5	53 813.4
2009–10	25 871.8	13 889.0	4 422.1	10 038.1	54 221.0
2010–11	30 526.0	13 934.5	4 368.6	10 460.2	59 289.3
2011–12	35 993.1	15 594.6	5 371.5	8 674.6	65 633.7
2012–13	36 577.5	19 180.1	6 103.1	7 316.1	69 176.8
2013–14	29 629.6	18 269.4	7 162.3	6 003.7	61 065.1
2014–15	23 915.1	15 476.7	7 532.2	4 415.9	51 339.8
2015–16	21 330.9	11 511.1	8 909.1	4 429.9	46 181.0
2016–17	24 299.1	9 093.4	11 243.7	4 715.3	49 351.5
2017–18	29 832.1	14 240.1	10 284.1	6 120.0	60 476.3
2018–19	27 975.4	14 444.5	9 157.8	5 772.7	57 350.4

Source: ABS (2019h).

PART T: Transport

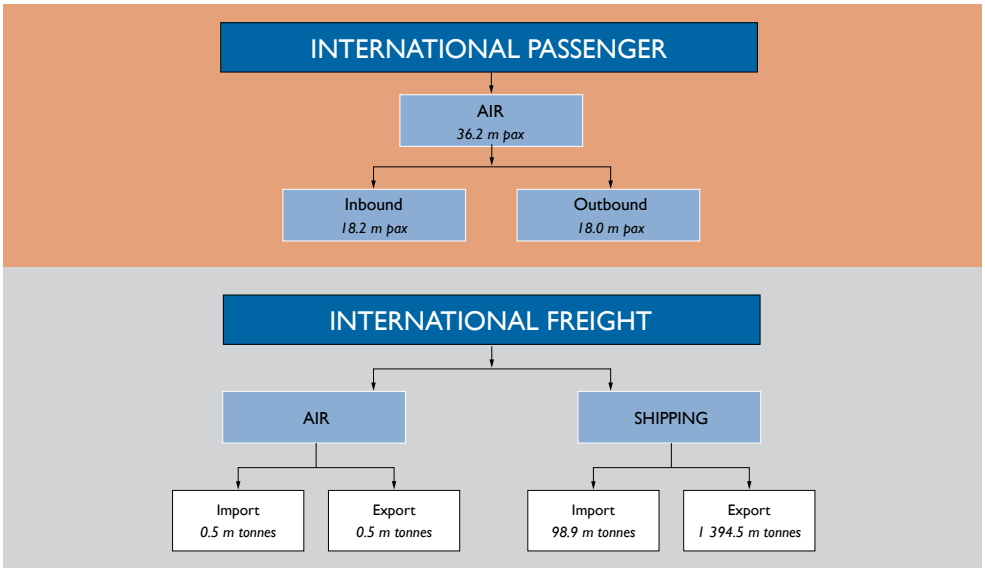
Figure T 1a Australia's domestic transport, 2015–16



Note: Metropolitan refers to the eight capital cities: Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart, Darwin and Canberra.

Source: BITRE (2017), BITRE estimates.

Figure T 1b Australia's international transport, 2015–16

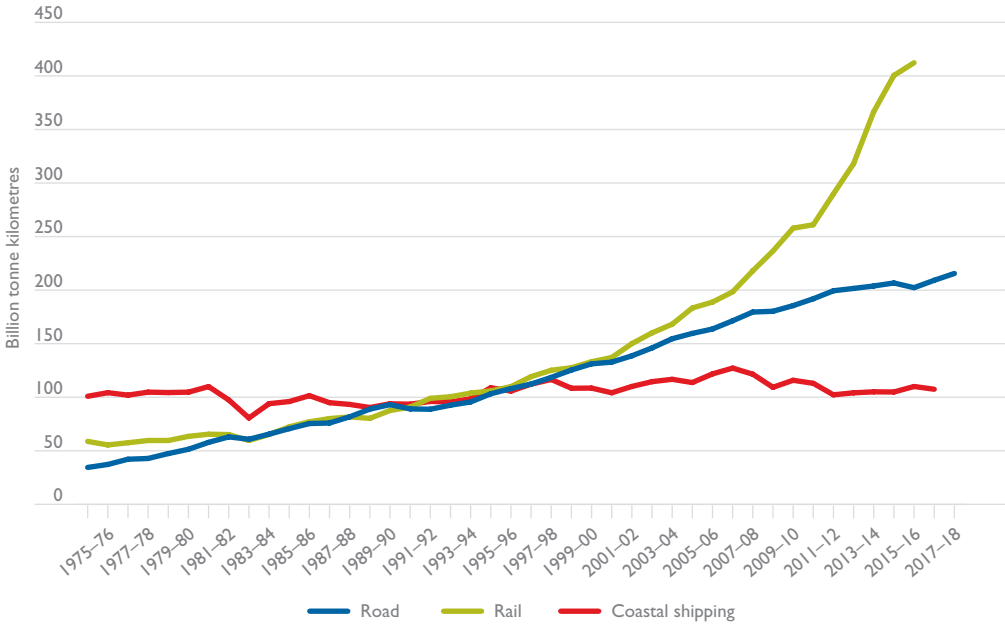


Source: BITRE (2017).

PART T
Transport

Statistics for Australian transport activity are provided from two perspectives: transportation activity measured in terms of what is being transported (freight or passengers), or transportation activity by mode (road, rail, aviation or shipping).

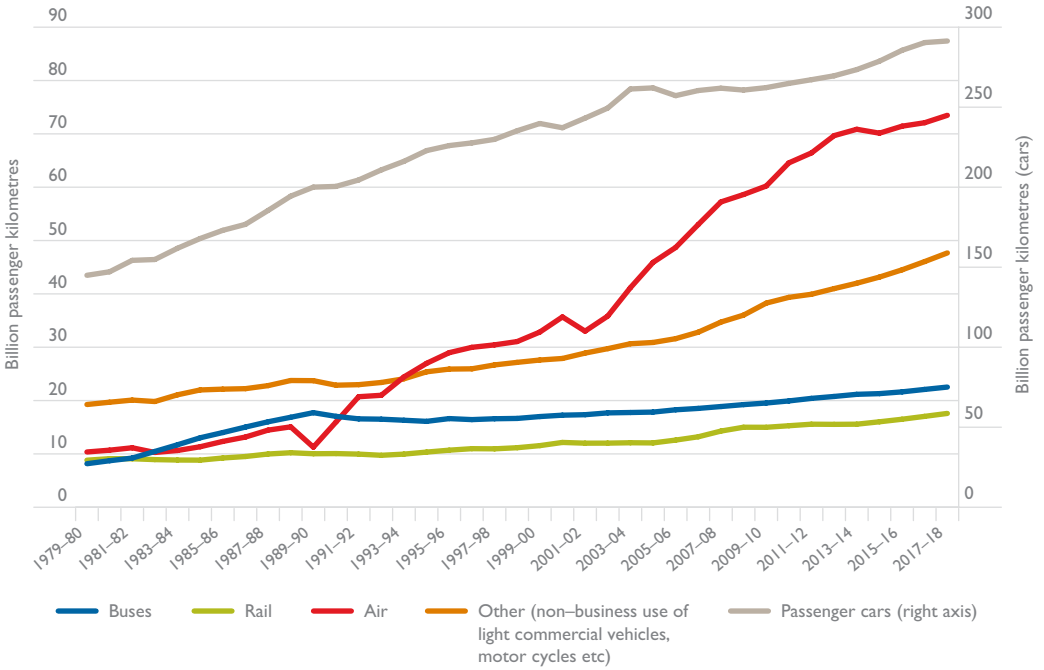
Figure T 2 Australian domestic freight task, by mode of transport



Source: BITRE (2019).

Freight transport activity is measured in terms of tonne kilometres (the movement of one tonne of freight by one kilometre). The Australian domestic freight task has been increasing strongly for the last 40 years, with road and rail freight now dominating domestic freight activity. The rapid growth in rail freight task has been driven by rail's movement of iron ore in the Pilbara region.

Figure T 3 Australian domestic passenger task, by mode of transport



Source: BITRE (2019).

Passenger transport activity is measured in terms of passenger kilometres (the movement of one passenger by one kilometre). The Australian domestic passenger task is dominated by road transport, mainly passenger cars (right axis). Passenger travel on other modes has increased in recent years, with travel by air increasing rapidly since 2001.

CHAPTER 1
Transport infrastructure

Table T 1.1a Value of transport infrastructure engineering construction work done, by the private sector for the private sector, adjusted by chain volume index, 2016–17 prices

Financial year	Roads and bridges	Railways	Ports and harbours	Total infrastructure engineering construction work done	Transport percentage of total major infrastructure engineering construction work done
		$ million			*per cent*
1986–87	1 089.4	215.8	405.8	1 711.0	70.47
1987–88	1 531.4	97.9	302.9	1 932.1	71.95
1988–89	2 095.6	47.9	59.3	2 202.8	74.90
1989–90	2 413.2	32.9	129.4	2 575.6	80.38
1990–91	2 132.1	36.3	101.0	2 269.4	75.08
1991–92	2 104.0	66.9	60.2	2 231.0	77.55
1992–93	1 958.8	25.1	65.3	2 049.3	67.59
1993–94	2 297.7	76.8	137.0	2 511.5	66.77
1994–95	2 182.6	55.6	49.8	2 288.0	61.08
1995–96	2 177.3	116.4	46.6	2 340.3	48.35
1996–97	2 841.6	150.6	150.7	3 142.9	62.16
1997–98	3 496.0	317.9	381.9	4 195.9	65.06
1998–99	4 108.3	290.1	354.6	4 753.1	63.53
1999–00	3 246.7	275.6	142.5	3 664.8	45.65
2000–01	2 231.3	157.4	154.0	2 542.7	35.27
2001–02	2 693.4	459.6	175.9	3 328.9	43.74
2002–03	4 204.0	871.5	229.1	5 304.7	51.37
2003–04	6 422.5	436.8	457.8	7 317.1	50.78
2004–05	7 909.1	743.2	1 163.0	9 815.3	59.37
2005–06	8 099.3	699.7	1 263.2	10 062.3	58.81
2006–07	7 231.2	1 321.7	1 342.2	9 895.2	47.62
2007–08	6 454.2	1 957.6	1 282.0	9 693.9	42.87
2008–09	7 204.1	1 403.1	1 431.4	10 038.6	42.77
2009–10	5 662.2	1 540.0	1 670.2	8 872.5	40.78
2010–11	5 941.1	2 375.2	3 221.5	11 537.8	43.85
2011–12	6 098.0	4 474.8	5 892.2	16 464.9	51.37
2012–13	5 639.8	4 658.7	7 648.4	17 946.9	48.82
2013–14	4 584.1	3 954.0	5 505.5	14 043.6	42.50
2014–15	4 806.2	2 906.7	2 414.2	10 127.2	38.32
2015–16	4 459.7	837.8	795.7	6 093.2	31.04
2016–17	5 073.7	523.8	823.0	6 420.4	32.61
2017–18	5 818.1	699.2	462.6	6 979.8	26.93
2018–19	7 121.0	794.3	537.3	8 452.6	32.74

Source: ABS (2019h).

Table T 1.1b Value of transport infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index, 2016–17 prices

Financial year	Roads and bridges	Railways	Ports and harbours	Transport infrastructure engineering construction work done	Transport percentage of total major infrastructure engineering construction work done
		$ million			*per cent*
1986–87	2 370.4	328.9	282.5	2 981.8	53.69
1987–88	1 739.0	299.4	108.3	2 146.7	52.33
1988–89	1 708.1	91.2	155.7	1 955.0	53.24
1989–90	2 070.9	106.9	81.9	2 259.7	57.43
1990–91	2 216.5	175.9	124.8	2 517.2	52.14
1991–92	2 216.1	191.1	79.3	2 486.5	50.44
1992–93	2 716.3	212.8	189.8	3 118.9	58.52
1993–94	3 219.5	431.6	205.9	3 857.0	61.76
1994–95	2 888.6	594.3	115.2	3 598.1	65.81
1995–96	2 948.6	365.9	121.0	3 435.5	64.29
1996–97	2 993.3	739.1	284.3	4 016.7	67.57
1997–98	3 895.4	800.2	157.4	4 853.1	73.78
1998–99	4 678.6	647.4	174.7	5 500.8	78.15
1999–00	4 670.0	294.2	128.8	5 092.9	68.16
2000–01	4 347.4	184.7	120.7	4 652.7	66.94
2001–02	3 562.3	108.6	260.7	3 931.7	64.20
2002–03	3 440.9	382.8	196.6	4 020.3	63.76
2003–04	2 945.6	1 047.7	197.1	4 190.4	67.09
2004–05	3 924.1	1 462.0	223.2	5 609.3	67.40
2005–06	4 642.5	1 485.8	185.8	6 314.1	70.33
2006–07	5 742.1	1 011.5	168.8	6 922.4	75.09
2007–08	6 608.0	738.0	249.9	7 595.9	57.87
2008–09	8 302.1	1 432.7	339.5	10 074.3	64.63
2009–10	7 914.8	1 613.0	593.9	10 121.7	62.97
2010–11	9 072.3	2 224.9	747.8	12 045.0	71.20
2011–12	9 880.3	2 665.1	341.5	12 886.9	72.86
2012–13	9 659.2	2 706.0	236.6	12 601.9	71.12
2013–14	8 250.7	2 497.2	445.5	11 193.4	68.02
2014–15	6 966.1	2 170.5	624.0	9 760.6	67.03
2015–16	7 724.1	2 718.2	447.2	10 889.5	66.45
2016–17	9 588.2	3 563.1	279.7	13 431.1	67.00
2017–18	12 283.9	5 831.1	297.3	18 412.3	73.90
2018–19	8 909.8	5 820.7	274.4	15 005.0	69.04

Source: ABS (2019h).

Table T 1.1c Value of transport infrastructure engineering construction work done, by the public sector, adjusted by chain volume index, 2016–17 prices

Financial year	Roads and bridges	Railways	Ports and harbours	Transport infrastructure engineering construction work done	Transport percentage of total major infrastructure engineering construction work done
		$ million			*per cent*
1986–87	3 228.1	322.7	80.8	3 631.7	31.74
1987–88	3 015.6	351.9	50.0	3 417.5	32.39
1988–89	2 997.7	221.0	52.7	3 271.5	30.65
1989–90	3 133.6	596.9	65.8	3 796.3	31.10
1990–91	3 127.2	660.6	79.3	3 867.1	32.03
1991–92	2 754.2	696.1	34.1	3 484.4	33.94
1992–93	3 459.3	814.3	38.2	4 311.9	38.97
1993–94	3 556.3	947.4	55.5	4 559.2	42.96
1994–95	3 460.6	1 261.6	43.4	4 765.5	39.90
1995–96	3 512.6	1 530.6	35.3	5 078.5	41.49
1996–97	3 116.8	1 606.2	43.7	4 766.8	41.56
1997–98	3 270.6	1 011.9	52.9	4 335.4	37.94
1998–99	3 277.8	960.6	88.2	4 326.6	35.45
1999–00	3 367.9	814.9	28.9	4 211.6	31.40
2000–01	3 055.4	715.3	69.7	3 840.3	31.46
2001–02	3 077.1	911.4	110.4	4 098.9	33.77
2002–03	3 296.1	884.8	71.8	4 252.7	35.48
2003–04	3 277.6	943.8	75.4	4 296.8	36.80
2004–05	3 172.3	1 212.2	31.6	4 416.2	36.31
2005–06	3 372.1	1 060.8	18.8	4 451.7	29.89
2006–07	3 786.8	1 170.0	38.8	4 995.6	36.17
2007–08	4 090.4	1 080.8	355.9	5 527.1	41.67
2008–09	4 780.1	1 073.2	467.7	6 321.0	42.85
2009–10	4 473.5	2 221.5	228.2	6 923.2	42.24
2010–11	4 598.6	2 290.2	57.7	6 946.6	43.25
2011–12	5 206.6	1 247.8	44.7	6 499.0	40.89
2012–13	5 082.9	759.0	48.6	5 890.5	40.09
2013–14	3 786.9	469.1	60.5	4 316.5	37.33
2014–15	3 632.9	265.0	33.4	3 931.3	37.99
2015–16	4 021.8	251.6	33.2	4 306.6	42.37
2016–17	3 981.3	402.5	60.8	4 444.6	46.22
2017–18	4 078.8	477.5	60.2	4 616.5	47.89
2018–19	3 914.1	537.8	66.0	4 517.9	46.09

Source: ABS (2019h).

Table T 1.1d Total value of transport infrastructure engineering construction work done, adjusted by chain volume index, 2016–17 prices

Financial year	Roads and bridges	Railways	Ports and harbours	Transport infrastructure engineering construction work done	Transport percentage of total infrastructure engineering construction work done
		$ million			*per cent*
1986–87	6 688.0	867.4	769.2	8 324.6	42.86
1987–88	6 286.0	749.2	461.2	7 496.4	43.23
1988–89	6 801.4	360.1	267.7	7 429.2	42.97
1989–90	7 617.8	736.7	277.2	8 631.7	44.61
1990–91	7 475.8	872.8	305.1	8 653.7	43.43
1991–92	7 074.3	954.1	173.6	8 201.9	45.38
1992–93	8 134.5	1 052.2	293.4	9 480.1	48.80
1993–94	9 073.5	1 455.8	398.4	10 927.6	53.00
1994–95	8 531.8	1 911.5	208.3	10 651.6	50.35
1995–96	8 638.5	2 012.8	203.0	10 854.3	48.40
1996–97	8 951.7	2 496.0	478.7	11 926.4	53.07
1997–98	10 662.1	2 130.1	592.3	13 384.4	54.73
1998–99	12 064.8	1 898.2	617.5	14 580.5	54.56
1999–00	11 284.6	1 384.6	300.2	12 969.4	44.86
2000–01	9 634.1	1 057.4	344.3	11 035.7	41.86
2001–02	9 332.8	1 479.7	547.0	11 359.5	43.90
2002–03	10 941.1	2 139.1	497.5	13 577.6	47.44
2003–04	12 645.7	2 428.3	730.2	15 804.2	48.88
2004–05	15 005.5	3 417.4	1 417.9	19 840.8	53.60
2005–06	16 113.9	3 246.3	1 467.8	20 828.1	50.82
2006–07	16 760.1	3 503.2	1 549.8	21 813.1	49.79
2007–08	17 152.6	3 776.4	1 887.8	22 816.8	46.56
2008–09	20 286.3	3 909.0	2 238.5	26 433.8	49.12
2009–10	18 050.5	5 374.5	2 492.3	25 917.4	47.80
2010–11	19 612.0	6 890.4	4 027.0	30 529.4	51.49
2011–12	21 184.8	8 387.6	6 278.4	35 850.9	54.62
2012–13	20 381.9	8 123.8	7 933.6	36 439.3	52.68
2013–14	16 621.7	6 920.3	6 011.5	29 553.5	48.40
2014–15	15 405.3	5 342.2	3 071.6	23 819.0	46.39
2015–16	16 205.5	3 807.6	1 276.1	21 289.3	46.10
2016–17	18 643.2	4 489.4	1 163.5	24 296.1	49.23
2017–18	22 180.7	7 007.8	820.1	30 008.5	49.62
2018–19	19 944.9	7 152.9	877.7	27 975.4	48.78

Source: ABS (2019h).

Table T 1.2a Road-related expenditure, by commonwealth (constant 2017–18 prices, adjusted by CPI)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other	Total government
					$ million					
2001–02	831.8	615.7	578.3	168.1	305.7	79.8	64.9	50.3	4.9	2 699.5
2002–03	831.9	511.8	545.1	143.7	267.4	79.9	61.6	29.3	3.6	2 474.3
2003–04	970.4	403.7	578.8	167.5	272.8	70.6	58.8	29.6	3.1	2 555.2
2004–05	1 073.7	562.3	561.1	190.6	304.5	88.9	69.2	31.6	3.6	2 885.4
2005–06	2 364.7	705.7	1 096.3	345.0	793.8	180.3	116.4	41.6	4.7	5 648.4
2006–07	1 209.0	690.3	869.1	231.7	387.7	88.2	57.4	37.9	8.0	3 579.4
2007–08	896.5	676.8	922.5	245.4	436.4	86.7	80.5	23.4	7.7	3 375.9
2008–09	1 831.2	770.3	2 201.6	413.5	540.8	113.0	96.6	32.0	5.0	6 003.9
2009–10	1 885.6	927.7	1 899.0	551.0	449.7	178.2	171.9	47.4	7.3	6 117.8
2010–11	1 708.5	605.6	904.8	216.9	382.9	155.1	88.6	54.7	7.0	4 124.0
2011–12	2 987.8	1 235.2	2 356.7	532.1	699.0	114.0	162.6	56.8	8.3	8 152.5
2012–13	1 375.9	474.4	766.9	204.2	545.2	71.5	103.4	53.3	7.7	3 602.4
2013–14	2 065.7	2 012.7	1 176.0	131.7	402.4	66.2	107.0	81.3	7.7	6 050.7
2014–15	1 892.8	563.6	1 201.0	206.8	1 315.8	110.2	139.5	90.2	8.3	5 528.3
2015–16	2 061.5	568.1	1 506.1	356.1	490.8	138.8	183.4	43.8	7.9	5 356.6
2016–17	2 891.3	617.9	1 819.5	691.1	792.6	182.8	105.8	53.2	9.3	7 163.5
2017–18	1 974.5	649.2	1 728.6	681.8	770.2	175.9	85.5	33.1	10.4	6 109.2

See end notes.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2b Road-related expenditure, by state/territory government (constant 2017–18 prices, adjusted by CPI)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total government	Total public sector
					$ million					
2001–02	3 127.2	1 142.0	2 284.7	418.9	1 308.2	163.3	66.1	66.9	8 577.2	7 731.5
2002–03	3 065.8	2 048.8	3 130.3	471.3	818.4	187.4	61.1	81.5	9 864.7	8 891.9
2003–04	2 958.0	1 597.8	3 848.6	251.8	916.4	196.3	64.7	70.3	9 903.9	9 585.0
2004–05	3 196.0	1 652.5	3 912.9	339.2	997.4	262.0	58.5	60.4	10 478.9	9 947.6
2005–06	2 160.4	1 482.5	3 617.6	361.5	578.8	157.3	221.4	62.2	8 641.7	7 999.6
2006–07	3 431.4	1 663.0	4 734.0	366.8	1 267.4	193.4	262.2	86.2	12 004.3	11 466.9
2007–08	4 023.8	2 047.0	5 887.5	409.7	1 522.6	224.5	257.9	127.9	14 500.8	14 522.1
2008–09	3 856.8	2 504.0	3 248.9	439.4	1 328.4	186.8	335.8	126.8	12 027.0	12 020.4
2009–10	4 028.6	2 291.4	3 253.9	277.6	1 251.4	244.2	196.5	135.0	11 678.7	11 471.0
2010–11	3 901.7	2 472.1	4 504.3	551.1	1 098.3	271.0	274.7	152.1	13 225.3	12 907.3
2011–12	3 082.5	1 444.4	4 298.5	317.7	1 005.8	214.8	324.6	127.4	10 815.6	10 947.5
2012–13	4 571.8	1 526.9	6 671.4	790.6	1 684.5	234.0	173.9	134.5	15 787.5	15 419.5
2013–14	3 395.2	1 031.8	5 559.2	591.3	2 040.6	240.3	234.7	179.5	13 272.6	13 070.5
2014–15	4 214.7	1 987.7	4 054.0	404.9	981.0	225.1	246.4	73.7	12 187.6	11 675.6
2015–16	5 456.2	2 071.8	2 236.7	593.2	1 739.8	130.8	278.5	15.3	12 522.5	13 719.3
2016–17	4 126.9	4 123.3	2 501.5	628.4	1 625.5	207.8	344.1	109.9	13 667.5	15 062.9
2017–18	5 756.1	6 035.6	2 288.3	619.0	1 759.0	172.8	515.0	131.9	17 277.7	18 849.2

See end notes.

Note: Total public sector includes general government and public non-financial corporations.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2c Road-related expenditure, by local government (constant 2017–18 prices, adjusted by CPI)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total government
					$ million				
2001–02	1 944.0	1 150.1	1 259.5	261.4	286.0	99.5	8.4	n/a	5 008.9
2002–03	1 798.5	1 098.2	1 648.7	246.1	344.1	98.4	29.3	n/a	5 263.3
2003–04	1 617.1	1 101.7	1 662.6	257.0	298.4	134.7	31.0	n/a	5 102.7
2004–05	1 432.2	1 147.1	1 047.7	309.0	404.7	129.8	30.3	n/a	4 501.0
2005–06	1 340.1	1 019.0	1 134.0	279.8	219.8	116.6	9.0	n/a	4 118.3
2006–07	1 284.7	1 114.2	1 155.5	319.4	319.0	140.2	46.2	n/a	4 379.3
2007–08	1 420.6	1 260.9	1 601.6	345.9	439.6	140.9	20.0	n/a	5 229.5
2008–09	1 320.6	1 221.8	1 758.8	383.5	575.7	170.1	23.5	n/a	5 454.0
2009–10	594.2	1 150.9	2 096.6	332.4	604.2	165.0	– 1.1	n/a	4 942.2
2010–11	1 089.0	1 284.2	2 094.3	348.2	650.0	186.6	6.8	n/a	5 659.2
2011–12	940.8	1 430.3	1 746.3	403.8	588.4	186.2	– 72.0	n/a	5 223.8
2012–13	1 309.3	1 463.8	1 483.4	416.7	608.7	181.1	– 2.8	n/a	5 460.2
2013–14	1 479.3	1 406.6	1 204.6	442.4	554.6	156.8	– 32.8	n/a	5 211.4
2014–15	1 533.4	1 412.4	1 096.2	444.7	630.3	197.7	– 43.5	n/a	5 271.3
2015–16	1 373.0	1 298.0	1 506.0	368.6	688.7	166.5	– 95.0	n/a	5 305.8
2016–17	1 327.7	1 262.4	1 663.2	434.4	613.3	185.8	0.6	n/a	5 487.4
2017–18	1 119.4	1 347.1	1 656.1	438.0	557.8	181.6	– 9.1	n/a	5 291.0

See end notes.

Note: Negative figures result from the sum of commonwealth and state grants to local governments exceeding gross Local government expenditure.

n/a: not applicable.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2d Road-related expenditure, by all government (constant 2017–18 prices, adjusted by CPI)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other	Total government	Total public sector
						$ million					
2001–02	5 903.0	2 907.8	4 122.6	848.4	1 899.9	342.6	139.3	117.2	4.9	16 285.7	15 439.9
2002–03	5 696.2	3 658.8	5 324.1	861.1	1 429.8	365.7	152.0	110.9	3.6	17 602.2	16 629.5
2003–04	5 545.6	3 103.2	6 090.0	676.3	1 487.6	401.7	154.5	99.8	3.1	17 561.8	17 242.9
2004–05	5 702.0	3 361.9	5 521.7	838.9	1 706.6	480.7	158.0	92.0	3.6	17 865.2	17 334.0
2005–06	5 865.2	3 207.2	5 847.9	986.3	1 592.3	454.2	346.8	103.8	4.7	18 408.4	17 766.3
2006–07	5 925.1	3 467.5	6 758.6	917.9	1 974.2	421.8	365.8	124.0	8.0	19 963.0	19 425.5
2007–08	6 340.9	3 984.6	8 411.6	1 001.0	2 398.6	452.2	358.4	151.2	7.7	23 106.2	23 127.5
2008–09	7 008.6	4 496.1	7 209.3	1 236.4	2 444.9	469.8	455.9	158.8	5.0	23 484.9	23 478.3
2009–10	6 508.5	4 370.0	7 249.5	1 161.0	2 305.3	587.4	367.3	182.4	7.3	22 738.7	22 531.0
2010–11	6 699.2	4 361.8	7 503.4	1 116.3	2 131.2	612.7	370.1	206.8	7.0	23 008.5	22 690.6
2011–12	7 011.1	4 109.9	8 401.4	1 253.6	2 293.2	515.1	415.2	184.2	8.3	24 192.0	24 323.9
2012–13	7 257.0	3 465.1	8 921.6	1 411.5	2 838.4	486.6	274.5	187.8	7.7	24 850.2	24 482.2
2013–14	6 940.2	4 451.1	7 939.7	1 165.4	2 997.6	463.3	309.0	260.8	7.7	24 534.7	24 332.6
2014–15	7 640.9	3 963.7	6 351.3	1 056.5	2 927.1	533.0	342.4	164.0	8.3	22 987.2	22 475.2
2015–16	8 890.8	3 937.9	5 248.8	1 318.0	2 919.4	436.1	367.0	59.1	7.9	23 185.0	24 381.8
2016–17	8 346.0	6 003.6	5 984.3	1 753.8	3 031.4	576.5	450.5	163.1	9.3	26 318.4	27 713.8
2017–18	8 850.0	8 031.9	5 673.0	1 738.8	3 087.0	530.3	591.4	165.0	10.4	28 677.8	30 249.4

See end notes.

Note: Total public sector includes general government and public non-financial corporations.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2e Road expenditure—origin of funding—New South Wales (constant 2017–18 prices, adjusted by CPI)

	Origin of state government expenditure			Origin of local government expenditure				
Financial year	Commonwealth grants to State government	State from own sources	State gross	Direct commonwealth grants to local government	Indirect commonwealth grants to local government via state government	State grants to local councils (excluding originating from commonwealth)	Local from own sources	Local gross
	$ million							
2001–02	705.3	3 127.2	3 832.5	126.5	182.8	124.2	1 944.0	2 377.5
2002–03	747.0	3 065.8	3 812.8	84.8	188.6	131.1	1 798.5	2 203.0
2003–04	835.6	2 958.0	3 793.6	134.8	189.9	126.5	1 617.1	2 068.3
2004–05	975.1	3 196.0	4 171.1	98.6	188.6	270.0	1 432.2	1 989.4
2005–06	2 131.0	2 160.4	4 291.5	233.7	192.7	109.3	1 340.1	1 875.7
2006–07	974.3	3 431.4	4 405.7	234.7	194.2	273.5	1 284.7	1 987.1
2007–08	772.2	4 023.8	4 796.0	124.3	196.8	365.7	1 420.6	2 107.4
2008–09	1 653.6	3 856.8	5 510.4	177.6	256.3	485.6	1 320.6	2 240.0
2009–10	1 722.8	4 028.6	5 751.5	162.8	206.5	999.5	594.2	1 963.0
2010–11	1 577.4	3 901.7	5 479.0	131.1	215.9	553.8	1 089.0	1 989.9
2011–12	2 871.8	3 082.5	5 954.3	116.0	274.4	648.7	940.8	1 979.9
2012–13	1 221.5	4 571.8	5 793.3	154.4	211.3	579.3	1 309.3	2 254.3
2013–14	1 935.0	3 395.2	5 330.2	130.7	107.8	584.9	1 479.3	2 302.7
2014–15	1 729.8	4 214.7	5 944.6	163.0	322.9	289.8	1 533.4	2 309.1
2015–16	1 739.6	5 456.2	7 195.8	322.0	105.8	586.7	1 373.0	2 387.5
2016–17	2 586.1	4 126.9	6 713.1	305.2	315.6	458.1	1 327.7	2 406.5
2017–18	1 708.9	5 756.1	7 465.0	265.6	215.2	848.8	1 119.4	2 449.0

Note: Indirect commonwealth grants to local governments are also included in commonwealth grants to state governments.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2f Road expenditure—origin of funding—Victoria (constant 2017–18 prices, adjusted by CPI)

Financial year	State government expenditure – origin of funding			Local government expenditure – origin of funding				
	Commonwealth grants to state government	State from own sources	State gross	Direct commonwealth grants to local government	Indirect commonwealth grants to local government via state government	State grants to local councils (excluding originating from commonwealth)	Local from own sources	Local gross
	$ million							
2001–02	525.9	1142.0	1667.9	89.8	129.9	-129.9	1150.1	1369.8
2002–03	453.8	2048.8	2502.6	58.0	134.0	-123.9	1098.2	1300.3
2003–04	320.1	1597.8	1917.8	83.6	134.9	-132.1	1101.7	1323.1
2004–05	481.9	1652.5	2134.4	80.4	134.0	-131.2	1147.1	1364.2
2005–06	535.4	1482.5	2017.9	170.2	136.9	-122.3	1019.0	1340.8
2006–07	559.0	1663.0	2222.0	131.3	138.0	-129.0	1114.2	1392.6
2007–08	592.7	2047.0	2639.7	84.1	139.9	-114.9	1260.9	1509.8
2008–09	662.4	2504.0	3166.4	107.9	182.1	-103.3	1221.8	1590.6
2009–10	751.8	2291.4	3043.2	175.9	146.7	-37.7	1150.9	1582.5
2010–11	509.9	2472.1	2982.0	95.6	153.4	-84.5	1284.2	1602.2
2011–12	1118.0	1444.4	2562.3	117.2	195.0	-115.2	1430.3	1822.2
2012–13	365.9	1526.9	1892.7	108.6	150.1	-102.9	1463.8	1769.7
2013–14	1903.4	1031.8	2935.2	109.3	76.6	-3.9	1406.6	1665.2
2014–15	479.4	1987.7	2467.1	84.2	229.5	-153.8	1412.4	1801.8
2015–16	300.7	2071.8	2372.5	267.4	75.2	-30.6	1298.0	1685.2
2016–17	231.2	4123.3	4354.4	386.8	224.3	-176.3	1262.4	1921.4
2017–18	299.3	6035.6	6334.9	349.9	152.9	-94.9	1347.1	1907.9

Note: Indirect commonwealth grants to local governments are also included in commonwealth grants to state governments.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2g Road expenditure—origin of funding—Queensland (constant 2017–18 prices, adjusted by CPI)

Financial year	State government expenditure – origin of funding			Local government expenditure – origin of funding				
	Commonwealth grants to state government	State from own sources	State gross	Direct commonwealth grants to local government	Indirect commonwealth grants to local government via state government	State grants to local councils (excluding originating from commonwealth)	Local from own sources	Local gross
	$ million							
2001–02	485.2	2 284.7	2 769.9	93.1	118.0	138.5	1 259.5	1 727.3
2002–03	486.1	3 130.3	3 616.4	59.0	121.8	164.8	1 648.7	2 116.0
2003–04	499.3	3 848.6	4 347.9	79.5	122.6	190.9	1 662.6	2 178.3
2004–05	499.4	3 912.9	4 412.3	61.6	121.8	206.4	1 047.7	1 559.3
2005–06	924.0	3 617.6	4 541.6	172.3	124.4	261.3	1 134.0	1 692.1
2006–07	679.6	4 734.0	5 413.6	189.5	125.4	284.1	1 155.5	1 880.0
2007–08	859.2	5 887.5	6 746.7	63.3	127.1	161.6	1 601.6	2 080.7
2008–09	2 079.1	3 248.9	5 328.0	122.5	165.5	293.9	1 758.8	2 506.1
2009–10	1 768.4	3 253.9	5 022.4	130.5	133.3	–17.2	2 096.6	2 476.6
2010–11	738.1	4 504.3	5 242.4	166.7	139.4	355.7	2 094.3	2 756.2
2011–12	2206.1	4 298.5	6 504.6	150.5	177.2	1 044.7	1 746.3	3 118.7
2012–13	692.1	6 671.4	7 363.5	74.8	136.4	1 516.1	1 483.4	3 210.7
2013–14	769.5	5 559.2	6 328.7	406.5	69.6	1 540.3	1 204.6	3 221.0
2014–15	913.1	4 054.0	4 967.1	288.0	208.6	1 147.3	1 096.2	2 740.0
2015–16	1 175.0	2 236.7	3 411.8	331.0	68.3	608.7	1 506.0	2 514.0
2016–17	1 575.6	2 501.5	4 077.2	243.9	203.8	373.1	1 663.2	2 484.0
2017–18	1 515.7	2 288.3	3 804.0	212.9	139.0	474.0	1 656.1	2 482.0

Note: Indirect commonwealth grants to local governments are also included in commonwealth grants to state governments.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2h Road expenditure—origin of funding—South Australia (constant 2017–18 prices, adjusted by CPI)

Financial year	State government expenditure – origin of funding			Local government expenditure – origin of funding				
	Commonwealth grants to state government	State from own sources	State gross	Direct commonwealth grants to local government	Indirect commonwealth grants to local government via state government	State grants to local councils (excluding originating from commonwealth)	Local from own sources	Local gross
	$ million							
2001–02	126.9	418.9	545.8	41.2	34.6	5.4	261.4	342.6
2002–03	116.2	471.3	587.5	27.5	35.7	4.6	246.1	313.9
2003–04	132.1	251.8	383.9	35.4	36.0	4.8	257.0	333.2
2004–05	161.9	339.2	501.2	28.7	41.6	-41.6	309.0	373.5
2005–06	270.9	361.5	632.5	74.1	48.5	-48.5	279.8	390.4
2006–07	159.7	366.8	526.5	72.0	53.6	-53.6	319.4	428.3
2007–08	206.3	409.7	616.0	39.1	54.3	-54.3	345.9	422.3
2008–09	375.2	439.4	814.6	38.3	65.8	-40.4	383.5	495.8
2009–10	511.4	277.6	789.0	39.6	56.7	-30.6	332.4	437.2
2010–11	176.8	551.1	727.9	40.1	58.8	-41.6	348.2	446.5
2011–12	496.9	317.7	814.5	35.3	70.2	-54.5	403.8	506.8
2012–13	169.5	790.6	960.2	34.6	58.5	-50.8	416.7	499.0
2013–14	98.4	591.3	689.6	33.3	39.5	-27.7	442.4	507.9
2014–15	176.5	404.9	581.4	30.3	61.2	-59.1	444.7	538.3
2015–16	242.7	593.2	835.9	113.5	20.0	-13.8	368.6	508.3
2016–17	607.7	628.4	1236.0	83.4	59.8	-50.6	434.4	586.8
2017–18	582.8	619.0	1201.8	99.0	60.8	-53.8	438.0	584.8

Note: Indirect commonwealth grants to local governments are also included in commonwealth grants to state governments.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2i Road expenditure—origin of funding—Western Australia (constant 2017–18 prices, adjusted by CPI)

Financial year	State government expenditure – origin of funding			Local government expenditure – origin of funding				
	Commonwealth grants to state government	State from own sources	State gross	Direct commonwealth grants to local government	Indirect commonwealth grants to local government via state government	State grants to local councils (excluding originating from commonwealth)	Local from own sources	Local gross
	$ million							
2001–02	238.8	1308.2	1 546.9	67.0	96.3	308.6	286.0	757.9
2002–03	225.5	818.4	1 043.9	41.8	99.4	277.9	344.1	763.1
2003–04	208.4	916.4	1 124.9	64.4	100.1	255.7	298.4	718.5
2004–05	249.3	997.4	1 246.7	55.2	99.4	271.3	404.7	830.6
2005–06	681.0	578.8	1 259.8	112.7	101.5	310.8	219.8	745.0
2006–07	290.8	1 267.4	1 558.2	97.0	102.4	271.0	319.0	789.4
2007–08	369.8	1 522.6	1 892.4	66.6	103.7	358.7	439.6	968.7
2008–09	470.4	1 328.4	1 798.8	70.4	135.1	169.2	575.7	950.3
2009–10	299.3	1 251.4	1 550.7	150.4	108.8	121.0	604.2	984.4
2010–11	308.0	1 098.3	1 406.2	74.9	113.8	148.2	650.0	986.9
2011–12	620.4	1 005.8	1 626.1	78.7	144.6	156.4	588.4	968.1
2012–13	445.7	1 684.5	2 130.2	99.5	111.3	221.4	608.7	1 040.9
2013–14	341.2	2 040.6	2 381.8	61.2	56.8	362.2	554.6	1 034.8
2014–15	1 224.1	981.0	2 205.0	91.7	170.2	181.9	630.3	1 074.1
2015–16	298.3	1 739.8	2 038.2	192.5	55.7	195.1	688.7	1 132.1
2016–17	656.7	1 625.5	2 282.2	135.9	166.3	283.2	613.3	1 198.7
2017–18	551.0	1 759.0	2 310.0	219.2	113.4	267.6	557.8	1 158.0

Note: Indirect commonwealth grants to local governments are also included in commonwealth grants to state governments.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2j Road expenditure—origin of funding—Tasmania (constant 2017–18 prices, adjusted by CPI)

Financial year	State government expenditure – origin of funding			Local government expenditure – origin of funding				
	Commonwealth grants to state government	State from own sources	State gross	Direct commonwealth grants to local government	Indirect commonwealth grants to local government via state government	State grants to local councils (excluding originating from commonwealth)	Local from own sources	Local gross
	$ million							
2001–02	65.1	163.3	228.4	14.7	33.4	5.2	99.5	152.8
2002–03	70.3	187.4	257.7	9.6	34.4	3.0	98.4	145.4
2003–04	54.9	196.3	251.2	15.7	34.7	-30.5	134.7	189.4
2004–05	78.7	262.0	340.6	10.2	34.4	-30.3	129.8	178.6
2005–06	149.2	157.3	306.6	31.0	35.2	-27.2	116.6	190.8
2006–07	68.2	193.4	261.6	20.0	35.5	-30.3	140.2	200.9
2007–08	62.7	224.5	287.2	24.1	35.9	-29.7	140.9	207.2
2008–09	91.5	186.8	278.3	21.5	46.8	-38.3	170.1	246.8
2009–10	153.7	244.2	397.8	24.6	37.7	-23.5	165.0	241.5
2010–11	130.3	271.0	401.3	24.8	39.4	-29.1	186.6	261.2
2011–12	98.1	214.8	312.9	16.0	50.1	-43.4	186.2	259.0
2012–13	53.9	234.0	287.8	17.6	38.6	-35.3	181.1	240.6
2013–14	32.7	240.3	273.1	33.5	19.7	-13.3	156.8	216.4
2014–15	91.4	225.1	316.5	18.8	59.0	-49.5	197.7	285.0
2015–16	104.2	130.8	235.0	34.7	19.3	-11.0	166.5	228.7
2016–17	144.4	207.8	352.2	38.4	57.6	-48.5	185.8	291.1
2017–18	136.5	172.8	309.3	39.4	39.3	-27.3	181.6	272.3

Note: Indirect commonwealth grants to local governments are also included in commonwealth grants to state governments.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2k Road expenditure—origin of funding—Northern Territory (constant 2017–18 prices, adjusted by CPI)

Financial year	State government expenditure – origin of funding			Local government expenditure – origin of funding				
	Commonwealth grants to territory government	Territory from own sources	Territory gross	Direct commonwealth grants to local government	Indirect commonwealth grants to Local government via territory government	Territory grants to local councils (excluding originating from commonwealth)	Local from own sources	Local gross
	$ million							
2001–02	55.5	66.1	121.5	9.4	14.8	-14.8	8.4	32.6
2002–03	56.3	61.1	117.5	5.3	15.2	-15.2	29.3	49.8
2003–04	54.7	64.7	119.4	4.2	15.3	-15.3	31.0	50.5
2004–05	65.2	58.5	123.7	4.0	15.2	-15.2	30.3	49.5
2005–06	92.2	221.4	313.5	24.3	15.6	-14.2	9.0	50.1
2006–07	48.1	262.2	310.3	9.3	15.7	-15.7	46.2	71.2
2007–08	59.2	257.9	317.1	21.3	15.9	-13.4	20.0	59.6
2008–09	83.7	335.8	419.5	12.9	20.7	-18.3	23.5	59.5
2009–10	138.8	196.5	335.3	33.1	16.7	-11.9	-1.1	53.4
2010–11	66.7	274.7	341.4	21.9	17.4	-8.2	6.8	55.3
2011–12	85.0	324.6	409.6	77.6	22.2	-8.7	-72.0	41.2
2012–13	91.8	173.9	265.7	11.6	17.1	3.8	-2.8	29.6
2013–14	66.8	234.7	301.5	40.2	8.7	10.5	-32.8	26.7
2014–15	67.6	246.4	314.1	71.9	26.1	-20.8	-43.5	59.7
2015–16	67.7	278.5	346.3	115.7	8.5	8.0	-95.0	37.3
2016–17	77.9	344.1	422.0	27.9	25.5	-17.3	0.6	62.2
2017–18	53.4	515.0	568.4	32.1	17.4	-10.4	-9.1	47.4

Note: Indirect commonwealth grants to local governments are also included in commonwealth grants to state governments.

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.2l Road expenditure—origin of funding—Australian Capital Territory (constant 2017–18 prices, adjusted by CPI)

Financial year	Territory Government expenditure – origin of funding		
	Commonwealth grants to territory government	Territory from own sources	Territory gross
	$ million		
2001–02	50.3	66.9	117.2
2002–03	29.3	81.5	110.9
2003–04	29.6	70.3	99.8
2004–05	31.6	60.4	92.0
2005–06	41.6	62.2	103.8
2006–07	37.9	86.2	124.0
2007–08	23.4	127.9	151.2
2008–09	32.0	126.8	158.8
2009–10	47.4	135.0	182.4
2010–11	54.7	152.1	206.8
2011–12	56.8	127.4	184.2
2012–13	53.3	134.5	187.8
2013–14	81.3	179.5	260.8
2014–15	90.2	73.7	164.0
2015–16	43.8	15.3	59.1
2016–17	53.2	109.9	163.1
2017–18	33.1	131.9	165.0

Source: BITRE estimates, ABS (2019f) and ABS (2019i).

Table T 1.3 Road-related expenditure by jurisdictions (constant 2017–18 prices), adjusted by BITRE Road Construction and Maintenance Price Index

Financial year	Commonwealth government	State – general government	State – public sector	Local government	Total government	Total public sector
			$ million			
2001–02	2 869.9	9 118.5	8 219.4	5 325.1	17 313.5	16 414.3
2002–03	2 595.8	10 349.2	9 328.7	5 521.8	18 466.8	17 446.3
2003–04	2 607.5	10 106.4	9 781.0	5 207.0	17 920.9	17 595.5
2004–05	2 855.2	10 369.1	9 843.5	4 453.8	17 678.1	17 152.5
2005–06	5 506.2	8 424.2	7 798.2	4 014.7	17 945.0	17 319.1
2006–07	3 482.3	11 678.5	11 155.7	4 260.4	19 421.2	18 898.4
2007–08	3 206.5	13 772.9	13 793.0	4 966.9	21 946.2	21 966.4
2008–09	5 456.0	10 929.5	10 923.5	4 956.4	21 341.9	21 335.9
2009–10	5 741.5	10 960.3	10 765.4	4 638.1	21 340.0	21 145.1
2010–11	3 876.1	12 430.3	12 131.5	5 319.1	21 625.5	21 326.7
2011–12	7 465.3	9 903.9	10 024.7	4 783.5	22 152.7	22 273.5
2012–13	3 326.7	14 579.2	14 239.4	5 042.3	22 948.2	22 608.4
2013–14	5 677.9	12 454.6	12 265.0	4 890.2	23 022.7	22 833.1
2014–15	5 325.6	11 740.8	11 247.5	5 078.1	22 144.5	21 651.2
2015–16	5 358.4	12 526.6	13 723.8	5 307.6	23 192.5	24 389.7
2016–17	7 265.1	13 861.3	15 276.5	5 565.2	26 691.6	28 106.8
2017–18	6 109.2	17 277.7	18 849.2	5 291.0	28 677.8	30 249.4

Source: ABS (2019f), ABS (2019i) and BITRE estimates.

Table T 1.4a Selected road-related taxes and charges (Constant 2017–18 prices, adjusted by CPI)

Financial year	Australian Government (excluding taxes)			State and territory governments				Taxes			
	Net road-related petroleum products excise	Federal Interstate Registration Scheme (FIRS)	Passenger motor vehicles customs duty	Vehicle registration fees	Driver's licence fees	Stamp duty	Tolls	Total (excluding taxes)	Road-related Goods and Service Tax (GST)	Road-related Fringe Benefits Tax (FBT)	Luxury car tax
						$ million					
1997–98	14 200.8	29.7	0.0	3 831.9	371.6	2 113.0	231.2	20 778.3	na*	2 491.1	na*
1998–99	14 266.9	31.2	0.0	4 279.0	319.3	2 182.6	451.1	21 530.1	na*	2 527.4	na*
1999–00	14 370.3	35.3	0.0	4 088.3	360.4	2 207.5	583.1	21 644.9	na*	2 541.1	na*
2000–01	13 515.0	40.5	0.0	4 036.4	386.5	2 115.8	716.7	20 811.1	2 648.2	2 521.1	260.6
2001–02	13 496.2	46.4	0.0	4 133.6	354.7	2 230.7	891.7	21 153.3	2 605.9	2 380.5	327.8
2002–03	13 647.1	51.8	0.0	4 309.6	339.3	2 442.0	952.0	21 741.9	2 584.6	2 282.2	388.8
2003–04	13 135.8	57.8	2 175.2	4 559.9	369.4	2 653.3	1 030.3	23 981.6	2 740.4	2 239.9	468.2
2004–05	12 899.1	59.2	1 918.0	4 801.3	430.7	2 633.4	1 063.6	23 805.4	2 758.3	2 243.5	409.1
2005–06	12 615.1	66.6	1 501.9	4 851.5	414.9	2 556.8	1 068.6	23 075.3	2 821.5	2 209.8	427.0
2006–07	12 678.4	66.3	1 618.9	5 053.0	326.0	2 590.5	1 132.3	23 465.4	3 162.8	2 085.8	478.0
2007–08	12 452.4	67.7	1 749.9	4 966.4	301.1	2 759.8	1 189.6	23 487.0	3 064.8	1 892.1	558.7
2008–09	12 046.2	66.2	1 375.8	5 148.4	358.2	2 455.8	1 230.9	22 681.5	3 477.6	1 778.5	455.8
2009–10	11 962.0	73.3	1 452.4	5 611.9	383.5	2 507.9	1 469.8	23 460.9	3 570.5	1 655.7	571.0
2010–11	11 807.6	85.7	889.2	5 660.4	407.4	2 489.6	1 581.9	22 921.9	3 953.3	1 571.9	550.3
2011–12	11 785.6	92.7	1 014.1	6 015.1	437.6	2 560.5	1 648.9	23 554.5	4 112.5	1 508.7	495.3
2012–13	11 814.5	84.3	979.5	6 359.4	469.0	2 715.5	1 642.7	24 064.7	4 201.1	1 459.1	467.8
2013–14	11 588.4	80.3	983.5	6 597.0	527.6	2 622.1	1 737.2	24 136.1	4 270.3	1 401.3	495.0
2014–15	11 594.6	76.3	769.3	6 928.6	550.3	2 653.9	1 924.9	24 498.0	4 134.0	1 293.0	551.8
2015–16	11 378.7	71.4	636.5	7 138.7	575.3	2 767.5	2 133.0	24 701.2	4 163.2	1 143.5	631.4
2016–17	11 264.2	69.5	540.0	7 186.9	562.9	2 763.0	2 224.0	24 610.6	3 940.2	1 022.1	684.0
2017–18	11 810.2	68.6	490.0	7 645.7	585.0	2 917.5	2 418.4	25 935.3	3 973.0	984.0	705.0

Note: This table excludes items that raise relatively small amounts of revenue.

na*: not applicable.

Source: ABS (2019f), ABS (2019u), ATO (2019a), ATO (2019b), Treasury (2019), state/territory road agencies, private toll road operators.

Table T 1.4b Gross excise on petroleum products and fuel tax credits (Constant 2017–18 prices, adjusted by CPI)

Financial year	Excise on petroleum products				Fuel tax credits
	Petrol	Diesel	Other petroleum products	Total (excluding crude and condensate)	
			$ million		
2009–10	7 445.5	8 129.1	2 165.5	17 740.1	5 915.7
2010–11	6 823.2	8 576.4	2 416.1	17 815.8	5 870.2
2011–12	6 903.3	9 418.9	2 128.1	18 450.3	6 207.1
2012–13	6 636.6	9 401.5	2 522.2	18 560.2	5 938.2
2013–14	6 375.7	9 252.5	2 580.6	18 208.8	6 100.1
2014–15	6 400.7	9 294.2	2 426.8	18 121.7	6 316.6
2015–16	6 366.4	10 010.4	1 732.3	18 109.1	6 305.2
2016–17	6 287.0	10 523.2	1 531.0	18 341.1	6 376.7
2017–18	6 177.0	11 216.0	1 722.0	19 115.0	6 796.0

Note: The net road-related petroleum products excise figure in Table T 1.4a above also includes an adjustment for the component of off-road use that is not covered by fuel tax credits. See endnotes.

Source: ATO (2019a), ABS (2019f), ABS (2019u).

Table T 1.4c Road-related taxes and charges, New South Wales (Constant 2017–18 prices, adjusted by CPI)

Financial Year	Vehicle registration fees	Driver's licence fees	Stamp duty	Tolls
		$ million		
2009–10	1 820.8	172.5	695.4	560.0
2010–11	1 877.4	184.2	676.7	605.3
2011–12	2 041.5	139.8	668.2	633.1
2012–13	2 114.7	126.7	699.5	605.6
2013–14	2 200.9	140.7	710.6	666.5
2014–15	2 278.1	148.8	743.4	808.9
2015–16	2 384.7	175.1	814.8	883.6
2016–17	2 471.8	193.7	842.2	933.5
2017–18	2 708.5	210.0	835.1	995.4

Source: NSW Roads and Maritime Services data (2019), Private toll road operators, ABS (2019f), ABS (2019u).

Table T 1.4d Road-related taxes and charges, Victoria (Constant 2017–18 prices, adjusted by CPI)

Financial Year	Vehicle registration fees	Driver's licence fees	Stamp duty	Tolls
		$ million		
2009–10	1 011.2	34.9	573.0	563.3
2010–11	1 048.8	52.5	579.0	633.3
2011–12	1 117.2	67.9	584.0	675.7
2012–13	1 274.7	78.1	636.0	703.6
2013–14	1 299.1	126.4	660.7	748.6
2014–15	1 451.5	132.2	717.8	796.9
2015–16	1 492.3	133.3	777.0	892.2
2016–17	1 565.0	109.5	813.8	923.2
2017–18	1 541.8	91.3	916.6	1 030.0

Source: VicRoads data (2019), Private toll road operators, ABS (2019f), ABS (2019u).

Table T 1.4e Road-related taxes and charges, Queensland (Constant 2017–18 prices, adjusted by CPI)

Financial Year	Vehicle registration fees	Driver's licence fees	Stamp duty	Tolls
		$ million		
2009–10	1 489.2	72.5	471.5	242.5
2010–11	1 535.1	70.5	496.3	249.1
2011–12	1 613.2	100.2	517.7	257.0
2012–13	1 639.5	137.0	558.9	264.5
2013–14	1 657.9	145.6	519.5	270.4
2014–15	1 659.8	153.2	512.9	278.5
2015–16	1 701.5	150.4	522.5	324.5
2016–17	1 722.6	152.6	526.0	392.4
2017–18	1 778.1	163.9	537.0	393.0

Source: Department of Transport and Main Roads Queesnsland data (2019), Private toll road operators, ABS (2019f), ABS (2019u).

Table T 1.4f Road-related taxes and charges, South Australia (Constant 2017–18 prices, adjusted by CPI)

Financial Year	Vehicle registration fees	Driver's licence fees	Stamp duty
		$ million	
2009–10	310.9	32.0	171.8
2010–11	326.2	31.1	168.9
2011–12	335.1	58.6	161.7
2012–13	350.5	57.6	163.6
2013–14	365.8	37.4	167.8
2014–15	366.9	36.9	164.0
2015–16	370.9	37.6	164.7
2016–17	370.0	43.6	172.4
2017–18	373.0	48.1	173.3

Source: Department of Planning, Transport and Infrastructure (SA) data (2019), ABS (2019f), ABS (2019u).

Table T 1.4g Road-related taxes and charges, Western Australia (Constant 2017–18 prices, adjusted by CPI)

Financial Year	Vehicle registration fees	Driver's licence fees	Stamp duty
		$ million	
2009–10	707.1	41.7	393.3
2010–11	600.3	40.5	388.3
2011–12	630.4	39.5	412.2
2012–13	676.9	38.9	443.6
2013–14	734.4	45.7	419.4
2014–15	845.3	50.4	380.3
2015–16	861.7	50.0	361.5
2016–17	842.7	46.2	340.8
2017–18	894.4	44.1	354.5

Source: Department of Transport (WA) data (2019), ABS (2019f), ABS (2019u).

Table T 1.4h Road-related taxes and charges, Tasmania (Constant 2017–18 prices, adjusted by CPI)

Financial Year	Vehicle registration fees	Driver's licence fees	Stamp duty
		$ million	
2009–10	106.6	10.7	37.9
2010–11	109.1	8.0	37.9
2011–12	108.9	10.1	88.7
2012–13	116.4	9.9	94.4
2013–14	175.3	9.6	41.7
2014–15	161.8	8.7	42.4
2015–16	163.9	8.4	45.0
2016–17	166.8	9.0	45.1
2017–18	168.1	9.4	47.5

Note 2015-16 vehicle registration fees includes motor tax, vehicle registration fees, motor vehicle fire levy, road safety levy, motor accident insurance board (MAIB) premiums

Source: Department of Treasury and Finance (TAS) data (2019), ABS (2019f), ABS (2019u).

Table T 1.4i Road-related taxes and charges, Northern Territory (Constant 2017–18 prices, adjusted by CPI)

Financial Year	Vehicle registration fees	Driver's licence fees	Stamp duty
		$ million	
2009–10	70.4	2.8	24.9
2010–11	71.9	2.8	23.0
2011–12	74.0	2.8	24.7
2012–13	88.6	2.9	28.5
2013–14	49.6	3.4	26.2
2014–15	48.7	3.7	25.5
2015–16	50.3	4.6	23.5
2016–17	49.3	4.4	22.4
2017–18	54.4	4.0	22.5

Source: Department of Treasury and Finance (NT) data (2019), ABS (2019f), ABS (2019u).

Table T 1.4j Road-related taxes and charges, Australian Capital Territory (Constant 2017–18 prices, adjusted by CPI)

Financial year	Vehicle registration fees	Driver's licence fees	Stamp duty
		$ million	
2009–10	95.7	10.1	34.4
2010–11	91.5	9.9	33.3
2011–12	94.8	10.2	31.4
2012–13	98.1	10.1	28.5
2013–14	114.1	10.0	30.6
2014–15	116.6	9.6	31.1
2015–16	113.3	11.0	29.9
2016–17	121.2	11.7	31.3
2017–18	127.3	14.2	31.0

Source: ACT Government data (2019), ABS (2019f), ABS (2019u).

Table T 1.5 Arterial road and bridge maintenance expenditure, constant 2016–17 prices, adjusted by BITRE Road Construction and Maintenance Price Index—Road maintenance sub-index

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
				$ million				
2000–01	622.8	267.9	380.0	76.7	222.5	40.9	41.5	19.9
2001–02	570.7	311.5	380.3	73.0	191.0	42.8	36.9	15.3
2002–03	574.6	305.8	335.4	72.2	222.7	32.0	23.4	21.5
2003–04	577.8	292.2	408.2	77.6	221.8	37.0	27.6	12.7
2004–05	594.7	255.6	402.6	92.3	206.7	34.7	26.4	11.4
2005–06	550.8	242.0	417.6	93.0	222.6	48.6	28.0	10.0
2006–07	555.4	260.8	485.1	80.4	265.5	46.6	35.2	11.3
2007–08	602.7	288.6	495.7	90.9	257.5	37.3	27.5	12.8
2008–09	717.6	282.3	524.7	114.5	300.4	35.8	46.9	9.3
2009–10	695.2	278.6	606.2	107.8	290.7	46.3	30.9	18.4
2010–11	739.5	371.6	629.8	78.8	247.0	56.5	56.2	13.2
2011–12	788.9	314.4	773.8	89.3	173.2	47.2	46.3	12.2
2012–13	692.9	269.0	1 075.9	82.2	250.5	61.4	56.5	13.0
2013–14	896.9	259.0	1 091.2	79.5	309.7	48.1	55.2	10.3
2014–15	942.5	330.3	610.2	71.5	297.9	54.8	66.6	12.4
2015–16	875.2	311.8	474.8	103.0	287.6	48.2	62.1	13.0
2016–17	923.2	337.9	695.4	84.1	308.7	50.6	55.6	12.4
2017–18	889.0	555.9	652.1	92.0	320.2	56.5	58.8	16.5
2018–19	697.2	560.0	676.3	97.5	361.9	58.7	50.7	16.8

Note: For this table, arterial roads are defined as by the NTC, which differs from that used in Table T 1.6 and between each state. The list of road classifications used by the NTC is included in the endnotes. Road and bridge maintenance figures exclude Commonwealth-funded Natural Disaster Relief and Recovery Arrangements (NDRRA) and Insurance-related expenditure since 2010–11.

Source: NTC (2019), BITRE estimates.

Table T 1.6a Total road length by state/territory, by road type

	Urban					Non–urban					
	Highway	Arterial	Local	Busway	Total	Highway	Arterial	Local	Busway	Total	Total
	kilometres										
New South Wales											
2013	1 491.7	4 013.4	33 339.1	51.8	38 896.0	10 353.1	69 847.0	87 112.5	0.0	167 312.6	206 208.6
2014	1 498.0	4 069.4	33 585.5	51.8	39 204.7	10 355.9	69 836.9	87 414.3	0.0	167 607.0	206 811.7
2015	1 501.3	4 064.5	33 832.4	52.6	39 450.8	10 348.7	69 867.0	87 572.9	0.0	167 788.6	207 239.4
2016	1 502.0	4 065.8	34 092.3	53.1	39 713.2	10 347.7	69 850.8	88 063.2	0.0	168 261.6	207 974.8
2017	1 501.8	4 059.5	34 476.6	53.1	40 091.1	10 347.6	69 862.3	88 073.3	0.0	168 283.2	208 374.3
2018	1 500.7	4 068.9	34 688.0	53.1	40 310.7	10 341.3	69 844.7	88 127.4	0.0	168 313.4	208 624.1
Victoria											
2013	1 669.1	5 060.8	29 293.4	0.0	36 023.3	6 623.6	30 625.2	71 731.0	0.0	108 979.8	145 003.1
2014	1 671.0	5 057.4	29 432.7	0.0	36 161.1	6 643.9	30 633.9	71 874.3	0.0	109 152.1	145 313.2
2015	1 672.6	5 060.8	29 683.1	0.0	36 416.5	6 644.3	30 636.2	72 039.3	0.0	109 319.8	145 736.3
2016	1 673.3	5 068.7	30 208.8	0.0	36 950.9	6 600.4	30 465.7	74 208.8	0.0	111 275.0	148 225.9
2017	1 673.9	5 090.9	30 525.8	0.0	37 290.6	6 599.9	30 480.5	74 306.9	0.0	111 387.3	148 677.9
2018	1 676.4	5 096.5	30 930.1	0.0	37 703.0	6 592.7	30 477.0	74 248.7	0.0	111 318.4	149 021.4
Queensland											
2013	1 018.9	2 318.1	26 347.3	29.4	29 713.6	10 892.8	19 052.9	164 091.2	0.0	194 036.9	223 750.5
2014	954.8	2 270.8	26 618.6	34.7	29 879.0	10 885.4	19 053.6	163 793.7	0.0	193 732.7	223 611.7
2015	1 037.2	2 352.7	26 692.0	33.5	30 115.3	10 896.9	19 056.1	163 303.3	0.0	193 256.3	223 371.6
2016	1 049.8	2 393.8	27 530.4	30.1	31 004.2	10 898.3	19 018.3	168 734.8	0.0	198 651.4	229 655.6
2017	1 165.6	2 476.2	27 434.7	35.2	31 111.8	10 914.3	19 031.8	165 234.9	0.0	195 181.0	226 292.8
2018	1 099.6	2 379.0	27 825.0	35.2	31 338.9	10 915.8	19 062.0	165 314.9	0.0	195 292.7	226 631.6
South Australia											
2013	252.8	1 693.3	10 703.8	24.7	12 674.6	3 231.2	13 974.4	67 313.2	0.0	84 518.8	97 193.4
2014	254.9	1 690.2	10 739.1	24.7	12 708.9	3 231.0	13 957.1	66 959.8	0.0	84 147.9	96 856.8
2015	273.7	1 702.3	10 729.6	24.2	12 729.9	3 231.0	13 961.5	67 019.5	0.0	84 212.0	96 941.9
2016	273.2	1 760.6	10 567.4	24.2	12 625.5	3 231.1	13 961.6	64 788.8	0.0	81 981.5	94 607.0
2017	275.6	1 882.1	10 209.7	24.2	12 391.7	3 222.8	13 891.4	62 861.1	0.0	79 975.4	92 367.1
2018	289.7	1 931.2	10 280.3	25.9	12 527.1	3 484.6	14 480.4	62 812.1	0.0	80 777.1	93 304.2
Western Australia											
2013	1 420.7	1 630.7	15 448.6	12.8	18 512.8	9 916.4	15 161.3	114 092.8	5.8	139 176.2	157 689.0
2014	1 428.9	1 606.1	15 661.5	12.8	18 709.3	9 946.1	15 133.5	113 761.8	5.8	138 847.1	157 556.4
2015	1 439.6	1 651.4	15 850.6	13.4	18 955.0	9 943.1	15 178.5	113 306.9	5.8	138 434.4	157 389.4
2016	1 457.8	1 660.4	16 000.4	13.6	19 132.2	9 937.3	15 170.1	112 234.9	5.8	137 348.1	156 480.3
2017	1 483.3	1 693.6	16 173.2	14.0	19 364.1	9 969.9	15 143.7	112 616.0	6.1	137 735.7	157 099.8
2018	1 489.1	1 682.8	16 392.6	13.2	19 577.8	9 944.1	15 174.4	112 236.0	6.1	137 360.6	156 938.4
Tasmania											
2013	349.3	569.0	3 033.1	0.0	3 951.4	1 530.3	3 084.7	11 535.2	0.0	16 150.2	20 101.6
2014	349.0	567.8	3 037.4	0.0	3 954.2	1 530.4	3 235.8	11 377.6	0.0	16 143.9	20 098.1
2015	348.6	563.4	3 036.0	0.0	3 947.9	1 529.4	3 289.8	11 184.8	0.0	16 004.0	19 951.9
2016	347.8	565.5	3 038.3	0.0	3 951.6	1 529.8	3 287.0	11 076.2	0.0	15 893.0	19 844.6
2017	348.8	566.1	3 048.7	0.0	3 963.6	1 529.0	3 288.3	11 143.0	0.0	15 960.3	19 923.9
2018	349.3	566.9	3 066.2	0.0	3 982.4	1 529.0	3 288.5	11 095.8	0.0	15 913.4	19 895.8
Northern Territory											
2013	23.5	309.5	925.6	0.0	1 258.7	2 647.9	13 594.4	1 802.6	0.0	18 044.9	19 303.6
2014	23.5	309.6	939.0	0.0	1 272.1	2 648.2	13 610.5	1 727.8	0.0	17 986.5	19 258.6
2015	23.5	310.7	946.5	0.0	1 280.7	2 649.8	13 607.3	1 744.3	0.0	18 001.4	19 282.1
2016	23.5	310.2	956.4	0.0	1 290.1	2 649.8	13 608.2	1 753.4	0.0	18 011.3	19 301.4
2017	23.5	311.7	955.9	0.0	1 291.1	2 649.8	13 704.2	1 766.5	0.0	18 120.6	19 411.7
2018	23.5	312.5	963.4	0.0	1 299.4	2 649.8	13 691.5	1 797.4	0.0	18 138.7	19 438.1
Australian Capital Territory											
2013	28.5	314.2	2 669.1	0.0	3 011.8	36.9	55.5	287.6	0.0	380.0	3 391.8
2014	29.3	328.4	2 692.9	0.0	3 050.7	37.2	61.2	277.5	0.0	375.9	3 426.6
2015	30.6	327.7	2 698.6	0.0	3 056.9	37.4	62.1	291.3	0.0	390.8	3 447.7
2016	57.0	331.3	2 741.0	0.0	3 129.3	38.6	63.2	311.3	0.0	413.1	3 542.4

	Urban					Non–urban					
	Highway	Arterial	Local	Busway	Total	Highway	Arterial	Local	Busway	Total	Total
					kilometres						
2017	60.0	333.1	2 746.0	0.0	3 139.1	38.6	65.5	340.3	0.0	444.3	3 583.4
2018	60.0	334.6	2 760.2	0.0	3 154.8	38.7	65.5	359.3	0.0	463.5	3 618.3
Other Territories											
2013	0.0	0.0	0.0	0.0	0.0	0.0	18.7	163.2	0.0	181.9	181.9
2014	0.0	0.0	0.0	0.0	0.0	0.0	18.7	163.1	0.0	181.8	181.8
2015	0.0	0.0	0.0	0.0	0.0	0.0	18.7	163.2	0.0	181.9	181.9
2016	0.0	0.0	0.0	0.0	0.0	0.0	18.7	163.2	0.0	181.9	181.9
2017	0.0	0.0	0.0	0.0	0.0	0.0	18.7	163.2	0.0	181.9	181.9
2018	0.0	0.0	0.0	0.0	0.0	0.0	18.6	160.6	0.0	179.2	179.2
Australia											
2013	6 254.4	15 909.1	121 759.9	118.7	144 042.1	45 232.3	165 414.0	518 129.3	5.8	728 781.4	872 823.5
2014	6 209.4	15 899.8	122 706.7	124.1	144 940.0	45 278.0	165 541.2	517 349.8	5.8	728 174.7	873 114.7
2015	6 326.9	16 033.6	123 468.8	123.7	145 953.1	45 280.7	165 677.2	516 625.6	5.8	727 589.3	873 542.4
2016	6 384.6	16 156.2	125 134.9	121.1	147 796.9	45 233.0	165 443.5	521 334.7	5.8	732 017.0	879 813.9
2017	6 532.7	16 413.2	125 570.6	126.6	148 643.1	45 272.0	165 486.5	516 505.2	6.1	727 269.7	875 912.8
2018	6 488.3	16 372.5	126 905.9	127.5	149 894.1	45 496.0	166 102.8	516 152.1	6.1	727 757.0	877 651.1

See end notes.

na: not available.

Source: PSMA (2018), OpenStreetMap (2012, 2014), ABS (2010), ABS (2012), BITRE estimates.

Table T 1.6b Total locally controlled road length by state/territory, by road type

	NSW	Vic	Qld	SA	WA	Tas	NT	Australia
				kilometres				
2015–16	146 324.0	130 549.0	149 663.0	78 215.0	127 876.0	14 216.0	13 307.0	660 150.0
2016–17	146 319.9	130 501.4	148 843.7	78 147.0	127 503.0	14 266.0	13 309.3	658 890.3
2017–18	146 530.0	131 184.0	149 278.0	78 198.0	127 977.0	14 162.0	13 268.0	660 597.0

Source: Data provided by the Department of Infrastructure, Transport, Cities and Regional Development (2019).

Table T 1.6c Toll road length

Type	Name	State	Length (km)
Harbour/river crossing	Sydney Harbour Bridge	NSW	1.1
	Sydney Harbour Tunnel	NSW	2.7
	Go Between Bridge	QLD	0.3
Tunnels or roads with tunnels	Cross City Tunnel	NSW	2.1
	Lane Cove Tunnel	NSW	3.8
	Clem7	QLD	6.8
	Airport Link	QLD	6.7
	Legacy Way	QLD	5.7
Intra–city links	M1 (Eastern Distributor)	NSW	6.0
	M2 (Hills)	NSW	21.0
	M7 (Westlink)	NSW	40.0
	M5 (South-West)	NSW	22.0
	CityLink	VIC	22.0
	EastLink	VIC	39.0
	Gateway Motorway	QLD	23.1
	Logan Motorway	QLD	38.7
	Westconnex (new M4)	NSW	7.4
	Military Road E-Ramps	NSW	0.5
Regional bypass	Toowoomba Second Range Crossing	QLD	41.0
Total			289.9

Source: Roads and Maritime NSW services website and Google maps.

Table T 1.6d Australian Road length by type of road

	Paved undivided	Paved divided	Paved freeway	Paved Tunnel	Paved Total	Gravel	Formed	Other	Total
					kilometres				
1975	225 215	2 891	400	0	228 505	210 497	215 745	181 388	836 135
1976	230 159	3 050	478	1	233 687	210 344	215 703	173 835	833 569
1977	235 147	3 208	513	1	238 869	210 360	216 796	164 430	830 456
1978	239 179	3 367	550	1	243 096	210 950	213 015	155 525	822 587
1979	243 231	3 526	614	1	247 371	216 638	208 124	147 584	819 717
1980	248 756	3 685	669	1	253 110	220 695	203 910	140 416	818 131
1981	256 104	3 843	678	1	260 625	222 549	201 547	134 489	819 211
1982	260 817	4 002	719	1	265 538	223 577	201 079	127 881	818 075
1983	264 686	4 161	751	1	269 598	229 143	198 373	123 156	820 269
1984	268 843	4 319	806	1	273 968	232 657	195 366	121 055	823 047
1985	273 098	4 478	869	1	278 445	236 999	192 710	117 300	825 454
1986	277 705	4 637	890	1	283 232	242 179	190 815	111 710	827 936
1987	281 505	4 795	989	1	287 290	242 841	187 205	108 129	825 465
1988	285 308	4 954	1 021	1	291 284	248 476	184 261	105 172	829 194
1989	288 208	5 113	1 147	1	294 469	250 897	182 614	103 101	831 080
1990	292 050	5 271	1 240	1	298 562	257 843	178 464	99 321	834 190
1991	295 287	5 430	1 253	1	301 971	261 449	177 069	97 207	837 697
1992	298 442	5 589	1 351	1	305 383	265 064	175 668	95 099	841 215
1993	302 431	5 748	1 440	4	309 623	269 735	173 233	90 955	843 545
1994	306 638	5 906	1 552	4	314 100	270 956	169 597	89 545	844 198
1995	310 793	6 065	1 722	4	318 584	272 175	165 955	88 140	844 855
1996	313 928	6 224	1 788	4	321 943	276 334	162 509	85 113	845 899
1997	318 456	6 382	1 817	5	326 660	280 201	160 901	79 019	846 781
1998	321 085	6 541	1 863	5	329 494	283 837	155 685	76 393	845 408
1999	324 634	6 700	1 914	5	333 254	284 591	154 252	75 341	847 437
2000	326 135	6 858	1 979	7	334 979	285 248	153 096	76 324	849 647
2001	330 507	7 017	2 051	15	339 590	287 341	149 968	75 684	852 583
2002	332 541	7 176	2 109	21	341 846	286 857	149 726	75 392	853 821
2003	334 169	7 334	2 182	21	343 706	285 714	150 369	74 454	854 243
2004	338 487	7 493	2 240	21	348 241	286 369	144 555	76 093	855 258
2005	341 935	7 652	2 259	21	351 866	287 893	143 232	76 404	859 395
2006	344 459	7 811	2 289	23	354 582	287 450	143 103	76 338	861 474
2007	349 485	7 969	2 320	26	359 800	287 675	142 382	73 523	863 380
2008	351 603	8 128	2 364	26	362 122	287 996	142 792	72 728	865 638
2009	356 679	8 287	2 521	28	367 514	288 578	142 686	70 613	869 391
2010	359 611	8 445	2 593	33	370 682	287 820	142 572	71 218	872 293
2011	364 321	8 430	2 681	33	375 465	289 177	143 262	71 251	879 155
2012	365 692	8 466	2 690	38	376 886	286 707	140 972	70 316	874 881
2013	366 833	8 439	2 773	38	378 083	284 978	139 557	69 979	872 597
2014	368 707	8 445	2 826	38	380 017	283 943	139 145	69 698	872 803
2015	369 770	8 470	2 902	43	381 185	283 841	139 493	69 624	874 142

Source: BITRE (2017).

Table T 1.6e Road length by type of road by state and territory

	Paved undivided	Paved divided	Paved freeway	Paved Tunnel	Paved Total	Gravel	Formed	Other	Total
					kilometres				
New South Wales									
2012	96 913	1 801	965	18	99 698	59 149	29 714	17 665	206 225
2013	97 603	1 800	993	18	100 415	58 713	29 495	17 535	206 157
2014	98 762	1 788	1 037	18	101 606	58 386	29 331	17 437	206 760
2015	99 471	1 870	1 037	18	102 397	58 184	29 229	17 377	207 187
Victoria									
2012	79 722	843	965	7	81 537	45 714	9 083	8 093	144 427
2013	79 937	815	1 007	7	81 767	45 966	9 133	8 137	145 003
2014	80 366	834	1 012	7	82 219	45 862	9 113	8 119	145 313
2015	80 732	777	1 088	7	82 604	45 890	9 118	8 124	145 736
Queensland									
2012	82 601	3 571	328	11	86 510	70 358	58 048	12 128	227 044
2013	82 354	3 571	338	11	86 273	68 827	56 785	11 864	223 749
2014	82 247	3 571	338	11	86 166	68 794	56 758	11 859	223 577
2015	81 219	3 566	338	15	85 138	69 646	57 461	12 006	224 251
South Australia									
2012	30 695	291	131	0	31 117	39 594	13 583	12 756	97 050
2013	30 787	293	131	0	31 211	39 609	13 588	12 760	97 169
2014	30 946	289	135	0	31 371	39 311	13 486	12 664	96 832
2015	31 106	291	135	0	31 532	39 266	13 470	12 650	96 918
Western Australia									
2012	53 059	1 357	181	2	54 598	58 689	27 078	17 014	157 380
2013	53 331	1 360	181	2	54 873	58 708	27 087	17 020	157 688
2014	53 506	1 363	181	2	55 051	58 521	27 001	16 965	157 538
2015	54 249	1 366	181	2	55 797	57 998	26 760	16 814	157 369
Tasmania									
2012	11 129	129	85	0	11 343	8 679	81	0	20 104
2013	11 176	126	88	0	11 390	8 631	81	0	20 102
2014	11 245	126	88	0	11 459	8 559	80	0	20 098
2015	11 312	126	88	0	11 526	8 348	78	0	19 952
Northern Territory									
2012	8 513	247	0	0	8 760	4 419	3 385	2 660	19 225
2013	8 581	247	0	0	8 828	4 424	3 389	2 663	19 304
2014	8 571	247	0	0	8 818	4 409	3 378	2 654	19 259
2015	8 595	247	0	0	8 843	4 409	3 377	2 653	19 282
Australian Capital Territory									
2012	3 059	227	35	0	3 322	104	0	0	3 426
2013	3 064	227	35	0	3 326	100	0	0	3 426
2014	3 064	227	35	0	3 327	100	0	0	3 427
2015	3 085	227	35	0	3 348	100	0	0	3 448

Source: BITRE (2017).

Table T 1.6f Lane kilometres, by type of road, Australia

	Paved undivided	Paved divided	Paved freeway	Paved tunnel	Paved total	Gravel	Formed	Other	Total
					Lane Kilometres				
1975	450 429	11 564	1 958	0	463 951	420 994	431 490	362 776	1 679 211
1976	460 318	12 199	2 274	3	474 794	420 687	431 407	347 671	1 674 559
1977	470 294	12 834	2 440	4	485 571	420 720	433 593	328 861	1 668 745
1978	478 357	13 469	2 598	4	494 427	421 900	426 030	311 051	1 653 409
1979	486 462	14 103	3 101	4	503 669	433 275	416 249	295 167	1 648 361
1980	497 512	14 738	3 327	4	515 581	441 390	407 819	280 832	1 645 623
1981	512 208	15 373	3 363	4	530 947	445 098	403 095	268 977	1 648 118
1982	521 634	16 008	3 559	4	541 205	447 153	402 157	255 762	1 646 277
1983	529 372	16 642	3 687	4	549 705	458 286	396 746	246 311	1 651 048
1984	537 686	17 277	3 907	4	558 874	465 314	390 733	242 111	1 657 031
1985	546 196	17 912	4 593	4	568 705	473 998	385 420	234 600	1 662 722
1986	555 410	18 547	4 678	4	578 639	484 358	381 630	223 419	1 668 046
1987	563 010	19 182	5 102	4	587 297	485 682	374 409	216 258	1 663 646
1988	570 617	19 816	5 240	4	595 677	496 953	368 522	210 345	1 671 496
1989	576 416	20 451	5 765	4	602 636	501 794	365 227	206 201	1 675 859
1990	584 100	21 086	6 137	4	611 326	515 686	356 929	198 642	1 682 582
1991	590 574	21 721	6 203	4	618 501	522 899	354 139	194 414	1 689 953
1992	596 885	22 355	6 558	7	625 805	530 128	351 337	190 199	1 697 468
1993	604 863	22 990	6 914	18	634 785	539 470	346 466	181 910	1 702 631
1994	613 276	23 625	7 362	18	644 282	541 912	339 194	179 090	1 704 477
1995	621 587	24 260	8 236	18	654 100	544 351	331 910	176 281	1 706 642
1996	627 855	24 894	8 500	18	661 268	552 669	325 017	170 226	1 709 180
1997	636 912	25 529	8 635	21	671 097	560 402	321 801	158 038	1 711 338
1998	642 170	26 164	8 838	21	677 193	567 674	311 370	152 785	1 709 022
1999	649 269	26 799	9 042	23	685 133	569 181	308 504	150 681	1 713 499
2000	652 270	27 433	9 867	32	689 603	570 495	306 193	152 647	1 718 938
2001	661 014	28 068	10 244	79	699 404	574 682	299 936	151 367	1 725 389
2002	665 083	28 703	10 471	96	704 353	573 713	299 452	150 784	1 728 302
2003	668 338	29 338	10 906	96	708 677	571 429	300 738	148 908	1 729 751
2004	676 973	29 973	11 138	96	718 179	572 737	289 110	152 187	1 732 213
2005	683 870	30 607	11 227	96	725 799	575 786	286 463	152 808	1 740 857
2006	688 918	31 242	11 349	104	731 614	574 900	286 207	152 677	1 745 397
2007	698 970	31 877	11 479	118	742 444	575 349	284 765	147 045	1 749 603
2008	703 206	32 512	11 657	118	747 493	575 992	285 585	145 455	1 754 526
2009	713 358	33 146	12 422	128	759 054	577 156	285 372	141 226	1 762 808
2010	719 223	33 781	12 917	147	766 068	575 641	285 144	142 436	1 769 289
2011	728 642	33 721	13 269	147	775 779	578 354	286 524	142 503	1 783 159
2012	731 384	33 864	13 357	187	778 793	573 414	281 945	140 631	1 774 783
2013	733 666	33 756	13 711	191	781 322	569 956	279 114	139 958	1 770 351
2014	737 415	33 782	13 958	191	785 345	567 885	278 290	139 397	1 770 917
2015	739 539	33 879	14 350	218	787 987	567 683	278 986	139 247	1 773 903

Source: BITRE (2017).

Note: Lane kilometre figures are obtained by multiplying the length of each segment of road by the number of lanes.

Table T 1.6g Lane kilometres, by state and territory

	Paved undivided	Paved divided	Paved freeway	Paved tunnel	Paved total	Gravel	Formed	Other	Total
					Lane Kilometres				
New South Wales									
2012	193 826	7 204	4 141	76	205 247	118 298	59 427	35 330	418 303
2013	195 206	7 200	4 255	76	206 737	117 425	58 989	35 070	418 221
2014	197 524	7 153	4 429	76	209 183	116 772	58 661	34 875	419 491
2015	198 943	7 480	4 429	76	210 927	116 368	58 458	34 754	420 507
Victoria									
2012	159 443	3 373	4 556	40	167 412	91 428	18 166	16 185	293 192
2013	159 875	3 262	4 724	40	167 900	91 932	18 266	16 275	294 373
2014	160 732	3 337	4 754	40	168 863	91 725	18 225	16 238	295 051
2015	161 464	3 107	5 058	40	169 669	91 781	18 236	16 248	295 934
Queensland									
2012	165 202	14 282	1 701	63	181 249	140 716	116 095	24 257	462 317
2013	164 708	14 282	1 741	63	180 795	137 654	113 569	23 729	455 746
2014	164 494	14 282	1 747	63	180 586	137 589	113 515	23 718	455 408
2015	162 438	14 264	1 761	91	178 554	139 293	114 921	24 011	456 779
South Australia									
2012	61 390	1 166	1 653	2	64 210	79 189	27 166	25 511	196 076
2013	61 574	1 171	1 653	2	64 400	79 219	27 176	25 521	196 316
2014	61 892	1 157	1 682	2	64 733	78 622	26 971	25 328	195 655
2015	62 211	1 164	1 750	2	65 126	78 531	26 940	25 299	195 897
Western Australia									
2012	106 118	5 427	807	6	112 359	117 378	54 157	34 028	317 922
2013	106 662	5 439	827	10	112 938	117 416	54 174	34 039	318 567
2014	107 012	5 451	836	10	113 309	117 041	54 001	33 931	318 282
2015	108 498	5 463	842	10	114 812	115 997	53 519	33 628	317 956
Tasmania									
2012	22 259	515	345	0	23 119	17 358	162	0	40 639
2013	22 352	504	356	0	23 212	17 262	161	0	40 635
2014	22 491	504	356	0	23 351	17 118	160	0	40 628
2015	22 624	504	356	0	23 484	16 695	156	0	40 336
Northern Territory									
2012	17 027	988	0	0	18 015	8 839	6 771	5 320	38 944
2013	17 162	988	0	0	18 150	8 848	6 778	5 325	39 101
2014	17 142	988	0	0	18 130	8 819	6 756	5 307	39 011
2015	17 191	989	0	0	18 179	8 818	6 755	5 307	39 058
Australian Capital Territory									
2012	6 119	910	153	1	7 183	208	0	0	7 391
2013	6 127	910	153	1	7 191	200	0	0	7 391
2014	6 128	910	153	1	7 191	200	0	0	7 391
2015	6 170	910	153	1	7 234	200	0	0	7 434

Source: BITRE (2017).

Note: Lane kilometre figures are obtained by multiplying the length of each segment of road by the number of lanes.

Table T 1.7 Selected road and bridge construction and maintenance price and cost indexes, for Australia and for states and territories

Financial year	NSW	VIC	QLD	SA	WA	Australia (BITRE)	Australia (ABS)
			index (2011–12 = 100)				
1998–99	60.2	56.9	56.5	56.3	59.2		58.1
1999–00	62.0	59.3	58.7	58.3	62.0		60.2
2000–01	63.8	62.4	60.8	61.8	64.8	64.9	62.6
2001–02	64.8	64.5	60.9	62.9	66.0	65.2	63.7
2002–03	69.1	68.3	64.6	65.7	68.4	68.1	67.4
2003–04	72.0	71.1	68.1	67.3	69.9	71.7	70.1
2004–05	75.2	72.2	72.1	70.2	73.2	75.7	73.0
2005–06	78.8	75.4	77.5	74.5	79.3	79.3	77.4
2006–07	82.4	78.7	82.4	77.7	83.8	81.8	81.3
2007–08	86.1	82.4	88.4	81.7	89.5	86.6	85.7
2008–09	89.6	87.9	96.6	89.4	94.4	93.4	91.2
2009–10	91.9	89.5	96.1	92.7	93.8	92.5	92.4
2010–11	94.3	93.9	98.2	95.7	95.3	95.2	95.2
2011–12	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2012–13	103.6	103.8	103.9	103.4	103.1	101.4	103.6
2013–14	106.7	106.6	106.3	107.2	103.9	102.5	106.1
2014–15	108.7	107.3	106.0	109.6	104.3	101.6	106.8
2015–16	109.6	107.5	106.4	110.6	103.4	99.2	107.2
2016–17	110.6	104.6	107.0	112.8	104.3	99.5	107.4
2017–18	113.0	112.4	111.0	117.4	106.0	102.8	111.2
2018–19	117.2	120.3	114.9	121.2	108.4	107.7	115.7

Note: Data are not available for missing years.

Source: For state and national indexes – ABS (2019); for national (BITRE) index – BITRE estimates.

Table T 1.8a Rail–related expenditure, by Commonwealth Government (constant 2017–18 prices, adjusted by CPI)

Financial year	NSW[b]	VIC	QLD	SA[b]	WA	TAS	NT	ACT	Non-state	Total government	Total public sector[a]
						$ million					
1998–99	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	13.4	16.8	854.5
1999–00	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0	80.3	95.4	981.6
2000–01	0.0	0.0	0.0	0.0	0.0	18.1	83.9	0.0	70.3	172.3	845.1
2001–02	0.0	0.0	4.4	0.0	0.0	1.2	163.1	0.0	0.0	168.7	458.3
2002–03	0.0	0.0	3.3	0.0	0.0	0.1	20.0	0.0	0.0	23.4	158.4
2003–04	201.6	0.0	0.3	0.0	0.0	0.0	0.0	0.0	632.8	834.7	128.0
2004–05	0.2	0.0	0.2	27.6	13.0	0.0	17.2	0.0	178.2	236.4	584.9
2005–06	1.6	0.0	0.0	22.9	0.0	0.0	0.0	0.0	377.9	402.4	815.5
2006–07	- 1.2	32.7	0.0	27.4	0.0	2.0	0.0	0.0	6.3	67.3	1 115.0
2007–08	24.8	118.1	31.2	4.0	35.1	19.1	0.0	0.0	28.5	260.9	1 543.7
2008–09	166.8	327.6	41.5	35.2	24.8	38.7	1.0	0.0	547.0	1 182.7	1 760.0
2009–10	- 31.3	52.9	466.1	65.3	18.1	56.3	2.0	0.0	933.7	1 563.1	2 411.9
2010–11	6.2	351.8	0.0	169.0	69.2	16.6	0.0	0.0	644.0	1 256.7	2 140.4
2011–12	75.9	539.8	33.7	349.6	139.1	30.9	0.0	0.0	460.5	1 629.6	2 932.2
2012–13	153.2	684.9	38.0	- 18.5	183.2	48.2	0.0	0.0	233.2	1 322.2	2 990.0
2013–14	419.0	1 206.7	73.1	0.6	24.6	36.0	0.0	0.0	1.9	1 761.9	2 458.8
2014–15	289.8	151.2	260.7	0.0	0.0	4.9	0.0	0.0	46.4	752.9	1 418.9
2015–16	81.9	0.1	105.7	0.0	508.0	11.7	0.0	0.0	74.0	781.3	910.2
2016–17	25.5	224.2	162.7	0.0	0.0	20.8	0.0	0.0	185.1	618.4	2 046.7
2017–18	0.0	35.6	45.5	178.1	509.0	15.0	0.0	0.0	281.7	1 064.9	2 529.0

[a] Total public sector includes general government and public non-financial corporations.

[b] Negative expenditure represents money recovered from state.

Source: ABS (2019f), ABS (2019i), BITRE estimates.

Table T 1.8b Rail–related expenditure, by state/territory government (constant 2017–18 prices, adjusted by CPI)

Financial year	NSW	VIC	QLD	SA[c]	WA[c]	TAS[c]	NT[c]	ACT	Total government	Total public sector[a]
						$ million				
1998–99	1 530.1	475.3	914.1	49.7	220.2	- 0.1	24.8	0.0	3 214.1	7 385.4
1999–00	1 175.7	1 368.2	1 114.3	38.8	169.8	- 13.5	17.8	1.6	3 872.7	8 910.9
2000–01	1 551.4	1 244.8	1 000.7	82.4	277.6	- 16.6	115.9	0.0	4 256.3	5 534.5
2001–02	1 517.3	1 107.9	919.6	48.9	63.8	0.3	287.7	0.0	3 945.6	7 890.8
2002–03	1 743.7	1 039.6	962.8	80.6	162.7	- 0.1	13.1	0.0	4 002.5	8 654.8
2003–04	1 643.2	3 004.8	953.0	42.2	326.2	0.0	7.0	0.0	5 976.4	7 455.5
2004–05	1 967.3	1 592.7	1 059.7	- 9.7	306.9	5.5	- 11.7	0.0	4 910.6	8 756.6
2005–06	2 303.7	1 959.5	1 021.6	119.4	335.2	4.0	0.0	0.0	5 743.5	8 720.6
2006–07	3 490.9	2 282.5	1 135.7	114.7	368.2	0.5	0.0	0.0	7 392.5	10 830.7
2007–08	2 510.0	2 141.8	1 101.2	83.5	303.6	7.1	0.0	0.0	6 147.2	10 922.2
2008–09	3 249.0	1 777.9	616.7	216.9	279.4	38.9	- 1.0	0.0	6 177.8	12 466.0
2009–10	3 898.0	2 765.4	50.4	425.2	299.4	5.3	- 2.0	0.0	7 441.6	13 104.0
2010–11	3 025.7	2 194.2	197.6	225.1	202.0	25.9	21.8	0.0	5 892.3	11 955.5
2011–12	3 460.5	2 367.7	400.9	195.0	120.3	- 2.8	0.0	0.0	6 541.7	10 216.1
2012–13	3 664.7	2 366.5	962.3	641.1	79.3	- 26.2	0.0	0.0	7 687.7	9 210.3
2013–14	3 755.6	1 719.2	1 172.3	313.7	253.3	- 9.3	0.0	8.6	7 213.4	6 588.3
2014–15	3 853.3	4 397.6	1 578.6	187.1	278.5	23.5	0.0	24.2	10 342.9	8 190.2
2015–16	1 584.1	4 776.0	1 640.1	143.1	- 215.6	42.2	0.0	18.7	7 988.6	9 600.3
2016–17	1 848.0	4 943.6	1 667.9	274.2	294.6	32.2	0.0	0.0	9 060.4	9 920.1
2017–18	2 130.0	6 678.4	1 721.5	145.9	- 234.0	- 1.0	0.0	0.0	10 440.8	11 461.1

[a] Total public sector includes general government and public non-financial corporations.

[c] Negative values are due to some mismatch between Commonwealth expenditure, and reported state expenditure from the ABS Government Financial Statistics.

Source: ABS (2019f), ABS (2019i), BITRE estimates.

Table T 1.8c Rail–related expenditure, by all government (constant 2017–18 prices, adjusted by CPI)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Public corporations	Total government [d]	Total public sector [a, e]
						$ million					
1998–99	1 530.1	475.3	914.1	49.7	220.2	3.3	24.8	0.0	8 316.3	3 230.9	8 173.9
1999–00	1 175.7	1 368.2	1 114.3	38.8	169.8	1.6	17.8	1.6	9 800.3	3 968.1	9 953.9
2000–01	1 551.4	1 244.8	1 000.7	82.4	277.6	1.5	199.8	0.0	5 613.8	4 428.6	6 507.7
2001–02	1 517.3	1 107.9	924.0	48.9	63.8	1.5	450.9	0.0	7 137.0	4 114.3	8 384.3
2002–03	1 743.7	1 039.6	966.2	80.6	162.7	0.0	33.1	0.0	8 692.6	4 025.9	8 789.1
2003–04	1 844.8	3 004.8	953.3	42.2	326.2	0.0	7.0	0.0	8 384.4	6 811.1	8 398.5
2004–05	1 967.5	1 592.7	1 059.9	17.8	319.9	5.5	5.5	0.0	9 658.9	5 147.0	9 490.0
2005–06	2 305.4	1 959.5	1 021.6	142.3	335.2	4.0	0.0	0.0	10 115.4	6 145.9	9 887.9
2006–07	3 489.7	2 315.3	1 135.7	142.1	368.2	2.6	0.0	0.0	12 279.2	7 459.8	12 002.7
2007–08	2 534.9	2 259.9	1 132.4	87.5	338.7	26.2	0.0	0.0	12 665.5	6 408.1	12 710.5
2008–09	3 415.8	2 105.5	658.2	252.1	304.2	77.6	0.0	0.0	15 595.5	7 360.5	15 396.7
2009–10	3 866.7	2 818.3	516.5	490.4	317.5	61.6	0.0	0.0	14 968.0	9 004.7	16 484.4
2010–11	3 031.9	2 545.9	197.6	394.1	271.1	42.5	21.8	0.0	15 005.6	7 149.0	14 777.0
2011–12	3 536.4	2 907.5	434.6	544.7	259.4	28.1	0.0	0.0	13 045.1	8 171.3	13 637.0
2012–13	3 817.9	3 051.5	1 000.3	622.6	262.4	22.0	0.0	0.0	11 370.2	9 009.9	12 436.4
2013–14	4 174.6	2 925.9	1 245.4	314.3	277.9	26.7	0.0	8.6	8 967.0	8 975.3	9 082.5
2014–15	4 143.1	4 548.8	1 839.3	187.1	278.5	28.4	0.0	24.2	8 617.3	11 095.8	9 661.0
2015–16	1 666.0	4 776.1	1 745.8	143.1	292.4	53.9	0.0	18.7	10 467.6	8 769.8	11 076.1
2016–17	1 873.5	5 167.8	1 830.6	274.2	294.6	53.0	0.0	0.0	10 311.2	9 678.8	11 285.6
2017–18	2 130.0	6 714.0	1 767.0	324.0	275.0	14.0	0.0	0.0	11 089.0	11 505.7	13 641.0

[a] Total public sector includes general government and public non-financial corporations.

[d] State totals will not add to total government as they do not include transfer payments to public non-financial corporations.

[e] The sum of public corporations and total government will not add to total public sector due to the existence of payments from general government to public non-financial corporations.

Source: ABS (2019f), ABS (2019i), BITRE estimates.

CHAPTER 2
Freight

Table T 2.1a Domestic freight, by transport mode—bulk

Financial year	Goods moved (billion tkm)				Goods moved (million tonnes)	
	Road	Rail	Coastal shipping	Total freight task	Rail	Coastal shipping
1977–78	13.2	49.2	100.3	162.7		
1978–79	14.6	48.4	100.5	163.5		
1979–80	15.8	52.4	101.2	169.0		
1980–81	17.8	55.0	106.6	178.0		
1981–82	19.4	55.3	94.1	168.0		
1982–83	18.7	51.4	78.4	148.8		
1983–84	20.3	55.8	91.3	167.5		
1984–85	21.8	62.8	93.3	178.2		
1985–86	23.4	66.5	99.0	189.0		
1986–87	23.5	69.1	92.5	185.8		
1987–88	25.3	69.7	90.9	186.9		
1988–89	27.6	66.8	87.8	182.3		
1989–90	28.9	74.3	91.3	194.8		
1990–91	27.7	77.7	90.8	196.0		
1991–92	27.8	85.5	93.3	207.1		
1992–93	29.2	85.5	92.8	208.9		
1993–94	30.4	88.4	95.4	216.8		
1994–95	33.0	91.0	105.6	231.6		
1995–96	34.8	95.6	102.4	234.2		43.5
1996–97	36.4	104.0	109.0	250.5		44.7
1997–98	38.7	107.7	112.1	259.1		47.6
1998–99	41.3	109.5	104.4	255.9		43.3
1999–00	43.5	114.4	102.6	261.4		45.1
2000–01	44.2	117.9	97.1	260.9		45.3
2001–02	46.4	129.6	102.8	280.9		46.1
2002–03	49.2	138.8	106.3	295.8		45.7
2003–04	52.4	142.8	109.3	305.7		45.5
2004–05	54.5	155.0	106.7	316.1		45.9
2005–06	56.2	157.0	115.4	328.6		48.6
2006–07	59.2	172.7	119.5	351.5		51.8
2007–08	62.5	187.4	112.3	362.2	642.8	49.3
2008–09	63.2	207.6	100.3	371.1	705.0	44.9
2009–10	65.6	230.5	106.5	402.6	798.8	44.7
2010–11	68.5	233.8	102.9	405.2	840.3	43.3
2011–12	71.8	260.0	94.8	426.6	908.0	43.0
2012–13	73.4	288.1	96.6	458.1	1 013.0	43.5
2013–14	75.0	337.6	97.8	510.5	1 089.6	45.3
2014–15	76.5	369.4	98.4	544.3	1 210.9	43.8
2015–16	75.2	381.1	102.8	559.2	1 322.1	44.7
2016–17	77.8		100.0			44.6
2017–18	80.2					
2018–19	81.2					

See end notes.

Note: The 2017–18 (Total, bulk and non–bulk) road freight estimates are approximate due to no ABS SMVU available this year to suitably benchmark the estimates. The road domestic freight 2017–18 estimates are trend values based on recent truck registration patterns.
Data are not readily available for missing years.

Source: BITRE(2019b), BITRE (2019i) and BITRE estimates

Table T 2.1b Domestic freight by transport mode—non–bulk

Financial year	Goods moved (billion tkm)					Goods moved (million tonnes)		
	Road	Rail	Coastal shipping	Air freight	Total freight task	Rail	Coastal shipping	Air freight
1977–78	29.9	10.6	4.8	0.1	45.3			
1978–79	33.0	11.5	4.2	0.2	48.9			
1979–80	35.8	11.3	3.9	0.2	50.4			
1980–81	40.3	10.8	3.7	0.2	51.8			
1981–82	43.8	10.0	3.7	0.2	55.6			
1982–83	42.2	8.5	2.5	0.2	54.2			
1983–84	45.5	9.6	3.0	0.2	58.7			
1984–85	49.0	9.8	3.0	0.2	62.6			
1985–86	52.4	10.8	2.8	0.2	66.2			
1986–87	52.7	11.3	2.7	0.2	68.7			
1987–88	56.6	12.2	2.7	0.2	73.9			
1988–89	61.6	13.8	2.9	0.2	78.9			
1989–90	64.5	13.6	2.9	0.1	81.6			
1990–91	61.7	13.4	3.0	0.2	77.8			
1991–92	61.3	13.8	3.1	0.2	79.5			
1992–93	63.7	15.2	3.2	0.2	85.5			
1993–94	65.6	15.9	3.4	0.3	91.0			
1994–95	70.6	15.2	3.6	0.3	93.9			
1995–96	73.6	14.6	3.7	0.3	95.1		4.3	
1996–97	76.3	15.6	3.6	0.3	97.9		4.4	
1997–98	80.2	17.9	4.8	0.3	104.3		4.9	
1998–99	84.6	18.4	4.4	0.4	109.4		5.1	
1999–00	88.2	19.2	6.3	0.4	116.1		6.2	
2000–01	89.0	19.6	7.4	0.4	119.7		6.7	
2001–02	92.7	20.9	7.6	0.3	125.5		6.3	
2002–03	97.3	21.8	8.5	0.3	127.9		7.1	
2003–04	102.7	25.9	8.7	0.3	137.6		7.7	
2004–05	105.7	29.0	7.4	0.4	142.4		7.8	
2005–06	108.0	32.4	6.8	0.4	147.6		6.7	0.3
2006–07	112.6	26.3	8.0	0.4	147.3		7.1	0.3
2007–08	117.6	31.3	9.6	0.4	158.9	19.5	8.3	0.3
2008–09	117.6	29.6	9.3	0.3	156.8	17.5	7.8	0.2
2009–10	120.5	28.1	9.8	0.3	158.7	16.5	7.7	0.2
2010–11	123.9	28.0	10.5	0.3	162.7	18.8	8.5	0.3
2011–12	128.1	30.7	7.8	0.3	167.0	21.6	7.5	0.2
2012–13	128.8	30.8	7.8	0.3	167.8	27.6	7.4	0.2
2013–14	129.5	30.1	7.6	0.3	167.4	21.9	6.7	0.2
2014–15	130.9	32.2	6.8	0.3	170.1	24.3	6.5	0.2
2015–16	127.6	32.4	7.6	0.3	167.8	25.4	7.1	0.2
2016–17	132.0		7.8	0.3			7.3	0.2
2017–18	136.0			0.3				0.2
2018–19	137.7							

See end notes.

Note: The 2017–18 (Total, bulk and non–bulk) road freight estimates are approximate due to no ABS SMVU available this year to suitably benchmark the estimates. The road domestic freight 2017–18 estimates are trend values based on recent truck registration patterns.
Data are not readily available for missing years.

Source: BITRE(2019a), BITRE (2019b), BITRE (2019i) and BITRE estimates

Table T 2.1c Domestic freight by transport mode—total bulk and non–bulk

Financial year	Goods moved (billion tkm)					Goods moved (million tonnes)				
	Road	Rail	Coastal shipping	Air freight	Total freight task	Road	Rail	Coastal shipping	Air freight	Total freight weight
1977–78	43.0	59.8	105.1		208.0			48.0		
1978–79	47.6	59.8	104.7		212.2			47.4		
1979–80	51.6	63.7	105.1		220.4			48.1		
1980–81	58.1	65.7	110.3		234.1			47.3		
1981–82	63.2	65.4	97.8		226.4			43.1		
1982–83	61.0	59.8	80.9		201.7			38.3		
1983–84	65.8	65.4	94.3		225.5			42.7		
1984–85	70.9	72.6	96.3		239.8	1 030.6		42.7		
1985–86	75.7	77.3	101.8		254.9	1 017.5		44.7		
1986–87	76.2	80.4	95.2		251.8	1 004.4		44.4		
1987–88	82.0	81.9	93.6		257.5	991.3		43.2		
1988–89	89.2	80.6	90.7		260.5	1 005.4		43.0		
1989–90	93.4	87.9	94.2		275.6	1 019.5		44.5		
1990–91	89.4	91.1	93.8		274.3	1 033.6		44.2		
1991–92	89.1	99.3	96.4		284.8	1 081.3		43.6		
1992–93	92.9	100.8	96.0		289.7	1 129.1		44.2		
1993–94	95.9	104.2	98.8		299.0	1 176.8		45.3		
1994–95	103.6	106.2	109.2		319.0	1 224.5		49.2		
1995–96	108.4	110.3	106.1		324.7	1 265.1		47.8		
1996–97	112.7	119.6	112.6							
1997–98	118.9	125.6	116.9							
1998–99	125.8	128.0	108.8							
1999–00	131.6	133.6	108.9							
2000–01	133.2	137.5	104.5							
2001–02	139.1	150.5	110.4							
2002–03	146.5	160.6	114.9		422.0	1 553.0	575.7	52.8		2 181.5
2003–04	155.1	168.7	117.1		440.9	1 696.0	590.9	53.2		2 340.1
2004–05	160.1	183.9	114.1		458.1	1 756.0	634.3	53.7		2 444.0
2005–06	164.2	189.4	122.2	0.4	476.2	1 844.0	641.2	55.2	0.3	2 540.8
2006–07	171.9	199.0	127.6	0.4	498.8	2 146.0	665.6	58.9	0.3	2 870.9
2007–08	180.1	218.7	121.9	0.4	521.1		662.3	57.6	0.3	
2008–09	180.8	237.2	109.6	0.3	527.9		722.5	52.7	0.2	
2009–10	186.1	258.6	116.2	0.3	561.2	2 092.0	815.3	52.4	0.2	2 959.9
2010–11	192.5	261.8	113.4	0.3	568.0		859.1	51.9	0.3	
2011–12	200.0	290.7	102.6	0.3	593.6	2 280.0	929.6	50.5	0.2	3 260.4
2012–13	202.2	319.0	104.5	0.3	625.9		1 040.6	50.9	0.2	
2013–14	204.5	367.7	105.4	0.3	677.9	2 276.5	1 111.5	52.0	0.2	3 440.1
2014–15	207.3	401.6	105.2	0.3	714.5		1 235.2	50.3	0.2	
2015–16	202.9	413.5	110.4	0.3	727.0		1 347.5	51.8	0.2	
2016–17	209.8		107.8	0.3				51.9	0.2	
2017–18	216.2			0.3					0.2	
2018–19	218.9									

See end notes.

Note: The 2017–18 (Total, bulk and non–bulk) road freight estimates are approximate due to no ABS SMVU available this year to suitably benchmark the estimates. The road domestic freight 2017–18 estimates are trend values based on recent truck registration patterns.
Data are not readily available for missing years.

Source: BITRE(2019a), BITRE (2019b), BITRE(2019i) and BITRE estimates

Table T 2.2a Total domestic freight by state/territory, by transport mode—road

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total [11]
				billion tonne–kilometres					
1972–73	11.1	6.9	3.8	2.7	2.5	0.6	0.2	0.1	28.0
1973–74	13.1	8.2	4.6	3.2	3.2	0.7	0.3	0.1	33.5
1974–75	13.3	8.5	4.8	3.3	3.5	0.8	0.3	0.1	34.6
1975–76	14.2	9.2	5.3	3.5	3.9	0.8	0.3	0.1	37.4
1976–77	15.8	10.4	6.1	3.9	4.6	1.0	0.4	0.2	42.3
1977–78	15.8	10.6	6.3	3.9	4.9	1.0	0.4	0.2	43.0
1978–79	17.3	11.7	7.0	4.2	5.6	1.1	0.5	0.2	47.6
1979–80	18.3	12.7	7.8	4.4	6.5	1.3	0.5	0.2	51.6
1980–81	20.4	14.3	8.9	4.7	7.6	1.4	0.6	0.2	58.1
1981–82	21.9	15.9	9.6	4.9	8.4	1.6	0.7	0.2	63.2
1982–83	20.8	15.2	9.2	4.8	8.5	1.5	0.7	0.2	61.0
1983–84	22.3	16.9	9.9	5.4	8.7	1.6	0.8	0.2	65.8
1984–85	23.9	17.9	10.6	5.9	9.7	1.7	0.9	0.2	70.9
1985–86	25.9	18.8	11.2	6.4	10.4	1.8	1.0	0.2	75.7
1986–87	26.4	18.3	11.2	6.3	10.9	1.8	1.1	0.2	76.2
1987–88	28.7	19.8	11.8	6.6	11.8	1.9	1.1	0.3	82.0
1988–89	31.8	20.4	13.3	7.2	13.0	2.0	1.2	0.3	89.2
1989–90	33.2	21.0	14.2	7.6	13.7	2.0	1.3	0.3	93.4
1990–91	32.1	19.3	13.6	7.4	13.4	1.9	1.3	0.3	89.4
1991–92	32.2	18.6	13.8	7.4	13.6	1.9	1.3	0.3	89.1
1992–93	33.6	19.8	14.5	7.7	14.0	1.9	1.3	0.3	92.9
1993–94	34.9	20.3	14.9	8.0	14.5	1.9	1.2	0.2	95.9
1994–95	37.9	21.6	16.2	8.5	15.8	2.0	1.3	0.2	103.6
1995–96	39.5	22.5	17.0	9.0	16.8	2.0	1.4	0.2	108.4
1996–97	41.0	23.7	17.8	9.3	17.1	2.0	1.5	0.2	112.7
1997–98	43.2	25.6	18.4	9.9	17.8	2.0	1.6	0.3	118.9
1998–99	47.2	27.9	19.2	10.3	17.3	1.9	1.8	0.3	125.8
1999–00	49.5	29.1	20.3	10.7	17.9	1.9	1.8	0.2	131.6
2000–01	49.5	29.1	21.2	10.8	18.5	2.0	1.8	0.2	133.2
2001–02	51.2	30.3	22.7	11.1	19.6	2.1	1.9	0.2	139.1
2002–03	53.9	31.9	24.0	11.5	20.8	2.2	2.0	0.2	146.5
2003–04	57.2	32.9	26.0	11.8	22.5	2.3	2.0	0.2	155.1
2004–05	59.5	34.2	27.2	11.8	22.8	2.3	2.1	0.2	160.1
2005–06	61.3	35.1	27.8	12.0	23.2	2.3	2.3	0.2	164.2
2006–07	61.8	35.7	30.4	12.3	26.3	2.5	2.5	0.3	171.9
2007–08	65.1	37.4	31.8	12.9	27.5	2.6	2.6	0.3	180.1
2008–09	65.3	37.6	31.5	13.0	27.8	2.5	2.7	0.3	180.8
2009–10	66.9	38.0	32.6	13.4	29.5	2.6	2.7	0.3	186.1
2010–11	66.6	39.2	34.1	13.9	32.7	2.9	2.8	0.3	192.5
2011–12	65.8	38.4	37.2	14.1	38.2	3.2	3.0	0.3	200.0
2012–13	66.2	38.0	37.6	13.7	39.8	3.2	3.3	0.3	202.2
2013–14	66.4	38.6	37.9	13.4	41.5	3.2	3.3	0.3	204.5
2014–15	67.5	39.5	38.2	13.3	42.0	3.3	3.3	0.3	207.3
2015–16	66.4	38.2	37.9	13.0	40.6	3.2	3.3	0.3	202.9
2016–17	69.2	41.5	38.7	13.6	39.9	3.3	3.4	0.3	209.8
2017–18	71.5	43.5	39.8	14.2	40.3	3.4	3.5	0.3	216.2
2018–19	72.7	44.6	40.1	14.3	40.2	3.4	3.4	0.3	218.9

See end notes.

Source: BITRE estimates.

Table T 2.2b Total domestic freight by state/territory, by transport mode—rail

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
					billion tonne–kilometres				
1971–72	7.4	2.9	7.0	3.2	22.0	0.2	na	na	42.7
1972–73	8.1	3.2	7.6	3.5	24.1	0.2	na	na	46.7
1973–74	8.5	3.1	7.7	3.9	30.6	0.3	na	na	54.1
1974–75	8.6	3.0	9.0	3.8	34.2	0.3	na	na	59.0
1975–76	8.3	3.0	9.8	3.8	30.4	0.2	na	na	55.6
1976–77	9.1	3.0	10.0	4.0	31.4	0.2	na	na	57.7
1977–78	9.2	3.1	10.4	4.1	32.9	0.2	na	na	59.8
1978–79	9.1	3.3	11.3	4.5	31.4	0.3	na	na	59.8
1979–80	10.6	3.9	11.4	4.7	32.9	0.2	na	na	63.7
1980–81	10.6	3.7	12.0	4.9	34.2	0.2	na	na	65.7
1981–82	10.8	3.5	13.2	4.9	32.7	0.2	na	na	65.4
1982–83	9.2	2.5	13.3	4.6	30.1	0.2	na	na	59.8
1983–84	11.2	3.1	15.5	5.0	30.3	0.2	na	na	65.4
1984–85	12.5	3.6	16.9	5.3	34.0	0.2	na	na	72.6
1985–86	14.1	3.2	18.5	6.1	35.2	0.3	na	na	77.3
1986–87	14.4	3.3	19.8	5.9	36.7	0.3	na	na	80.4
1987–88	14.4	3.4	20.7	6.4	36.7	0.2	na	na	81.9
1988–89	13.6	3.3	21.9	6.7	34.9	0.2	na	na	80.6
1989–90	14.7	3.8	22.8	6.9	39.5	0.2	na	na	87.9
1990–91	14.7	3.8	23.4	6.6	42.4	0.3	na	na	91.1
1991–92	15.4	3.6	27.2	7.2	45.7	0.3	na	na	99.3
1992–93	16.2	4.0	26.7	7.6	46.0	0.3	na	na	100.8
1993–94	17.3	4.5	26.7	8.0	47.5	0.3	na	na	104.2
1994–95	16.9	4.6	28.7	7.9	47.7	0.3	na	na	106.2
1995–96	18.1	4.8	28.4	7.8	50.8	0.4	na	na	110.3
1996–97	20.0	5.5	30.9	10.2	52.7	0.4	na	na	119.6
1997–98	20.0	4.5	32.0	9.8	58.9	0.5	na	na	125.6
1998–99	19.5	4.6	33.2	9.9	60.2	0.5	na	na	128.0
1999–00	19.9	4.8	35.5	9.6	63.3	0.5	na	na	133.6
2000–01	21.0	5.0	39.4	10.0	60.8	0.7	na	na	136.9
2001–02	23.1	5.5	43.3	11.0	66.8	0.8	na	na	150.5
2002–03	24.3	5.7	45.5	11.5	70.2	0.8	na	na	158.1
2003–04	25.8	6.1	48.4	12.3	74.7	0.9	na	na	168.1
2004–05	28.1	6.6	52.7	13.4	81.3	0.9	na	na	183.0
2005–06	29.0	6.9	54.4	13.8	84.0	1.0	na	na	189.0
2006–07	30.5	7.2	57.2	14.5	88.2	1.0	na	na	198.7
2007–08 [9]	28.9	15.3	52.2	12.8	123.8	0.5	2.4	na	203.5
2008–09	27.4	13.6	56.0	11.4	153.6	0.3	3.1	na	237.2
2009–10	28.2	12.6	60.7	10.5	170.9	0.1	3.2	na	258.6

See end notes.
na: not available.
Source: ARA (2008), BITRE (2012).

Table T 2.2c Total domestic freight by state/territory, by transport mode—shipping

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
					billion tonne–kilometres				
1995–96	4.7	8.6	24.1	9.1	54.2	3.7	1.6	na*	106.1
1996–97	5.5	8.8	25.6	9.7	57.6	3.2	2.2	na*	112.6
1997–98	5.6	10.3	25.6	9.7	60.5	2.4	2.8	na*	116.9
1998–99	4.9	7.9	24.8	9.7	55.1	3.5	2.9	na*	108.8
1999–00	6.4	8.9	30.3	9.6	46.3	4.0	3.3	na*	108.8
2000–01	7.4	9.4	30.7	9.0	41.8	2.9	3.2	na*	104.5
2001–02	5.2	6.6	30.9	9.6	49.9	5.7	2.5	na*	110.5
2002–03	5.7	7.6	31.7	10.1	51.9	5.8	2.3	na*	114.9
2003–04	4.9	6.5	33.8	8.2	55.6	5.5	2.6	na*	117.1
2004–05	5.3	6.6	37.1	8.5	48.0	4.6	3.6	na*	114.1
2005–06	5.3	9.0	41.2	8.9	50.9	4.5	2.4	na*	122.2
2006–07	6.2	9.1	42.0	9.4	56.3	4.4	0.2	na*	127.6
2007–08	6.0	8.0	43.8	10.5	46.4	4.5	2.5	na*	121.9
2008–09	5.0	6.2	42.0	9.3	40.1	3.9	2.8	na*	109.6
2009–10	5.9	6.1	41.2	8.2	49.7	3.5	1.5	na*	116.2
2010–11	4.8	5.7	42.1	8.6	45.6	3.5	2.8	na*	113.4
2011–12	5.3	5.8	43.6	9.1	32.9	3.3	2.3	na*	102.6
2012–13	4.5	5.4	47.6	8.6	32.8	3.0	2.4	na*	104.5
2013–14	4.7	5.1	49.0	9.8	30.9	3.3	2.4	na*	105.4
2014–15	3.8	4.5	48.1	11.5	30.2	3.2	3.9	na*	105.2
2015–16	3.8	4.6	48.9	11.1	30.8	3.6	7.3	na*	110.4
2016–17	3.1	4.4	45.9	9.0	31.0	3.7	10.7	na*	107.8

na: not applicable.
Source: BITRE (2019b), BITRE estimates.

Table T 2.2d Total domestic freight by state/territory, by transport mode—total

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
					billion tonne–kilometres				
1995–96	62.3	35.9	69.4	25.9	121.8	6.1	3.0	na	324.7
1996–97	66.5	38.0	74.3	29.2	127.5	5.6	3.6	na	344.9
1997–98	68.8	40.4	76.0	29.4	137.2	4.9	4.4	na	361.4
1998–99	71.6	40.4	77.3	30.0	132.5	5.9	4.7	na	362.6
1999–00	75.8	42.8	86.2	29.9	127.5	6.4	5.1	na	374.0
2000–01	77.9	43.5	91.3	29.8	121.1	5.6	5.0	na	374.6
2001–02	79.5	42.3	96.9	31.7	136.4	8.5	4.4	na	400.1
2002–03	83.8	45.2	101.2	33.1	142.9	8.7	4.3	na	419.5
2003–04	88.0	45.5	108.3	32.3	152.8	8.7	4.6	na	440.3
2004–05	92.9	47.4	117.0	33.7	152.1	7.8	5.8	na	457.2
2005–06	95.6	50.9	123.4	34.8	158.1	7.7	4.7	na	475.4
2006–07	98.5	52.0	129.6	36.2	170.9	7.9	2.7	na	498.1
2007–08	100.0	60.7	127.8	36.2	197.6	7.5	7.5	na	505.5
2008–09	97.7	57.4	129.5	33.7	221.5	6.8	8.6	na	527.5
2009–10	101.0	56.8	134.5	32.1	250.1	6.3	7.4	na	560.9

na: not available.
Source: ARA (2008), BITRE (2012) BITRE (2019b) and BITRE estimates.

Table T 2.3a Intrastate freight by state/territory, by transport mode—road

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
					billion tonne–kilometres				
1972–73	5.9	5.2	3.3	1.0	3.2	0.6	0.7	0.2	20.2
1973–74	6.5	5.7	3.7	1.1	3.5	0.7	0.8	0.2	22.2
1974–75	6.7	5.9	3.8	1.2	3.6	0.7	0.8	0.2	22.9
1975–76	7.3	6.4	4.2	1.3	3.9	0.8	0.9	0.2	24.9
1976–77	7.9	7.0	4.6	1.4	4.4	0.8	1.0	0.2	27.3
1977–78	8.2	7.2	4.8	1.4	4.6	0.9	1.0	0.2	28.3
1978–79	9.7	8.4	5.7	1.7	5.4	1.0	1.2	0.2	33.4
1979–80	10.6	9.1	6.2	1.9	5.9	1.1	1.3	0.3	36.4
1980–81	11.7	10.0	6.9	2.1	6.5	1.2	1.4	0.3	40.1
1981–82	12.4	10.7	7.5	2.2	7.0	1.3	1.5	0.3	42.9
1982–83	12.4	10.6	7.6	2.2	7.1	1.3	1.5	0.3	42.9
1983–84	14.2	12.1	8.6	2.5	8.1	1.4	1.8	0.3	49.0
1984–85	15.4	13.1	9.4	2.8	8.8	1.5	1.9	0.3	53.3
1985–86	16.0	13.6	9.9	2.9	9.3	1.6	2.0	0.3	55.7
1986–87	16.1	13.8	10.1	2.9	9.5	1.6	2.1	0.3	56.4
1987–88	17.5	14.9	11.0	3.2	10.3	1.7	2.3	0.4	61.4
1988–89	17.8	15.3	11.4	3.3	10.7	1.8	2.4	0.4	63.1
1989–90	18.1	15.6	11.9	3.4	11.1	1.8	2.5	0.4	64.8
1990–91	17.2	14.8	11.2	3.3	10.5	1.7	2.4	0.4	61.5
1991–92	16.7	14.5	11.2	3.2	10.4	1.7	2.4	0.4	60.4
1992–93	17.2	15.1	11.7	3.3	10.9	1.8	2.5	0.4	62.9
1993–94	17.4	15.4	12.2	3.4	11.3	1.8	2.6	0.4	64.4
1994–95	18.7	16.5	13.0	3.7	12.0	1.9	2.8	0.4	69.0
1995–96	19.7	17.3	13.7	4.0	12.6	2.0	3.0	0.4	72.7
1996–97	20.7	18.1	14.3	4.3	13.2	2.1	3.2	0.4	76.2
1997–98	21.4	18.7	14.9	4.5	13.7	2.1	3.3	0.4	79.0
1998–99	19.9	18.3	16.2	5.0	13.2	2.1	3.5	0.4	78.5
1999–00	20.7	19.6	17.6	5.8	13.1	2.5	3.6	0.4	83.2
2000–01	20.6	20.1	18.3	6.4	13.5	2.7	3.4	0.4	85.3
2001–02	21.6	21.1	19.9	6.9	14.4	2.7	3.0	0.4	90.0
2002–03	21.7	21.5	20.8	7.5	16.3	2.7	2.8	0.4	93.7
2003–04	22.0	21.5	22.4	8.1	17.6	3.1	2.8	0.4	97.9
2004–05	22.1	22.5	23.8	8.3	18.4	3.2	2.7	0.4	101.4
2005–06	21.3	23.5	25.2	8.5	19.1	2.8	2.6	0.5	103.5
2006–07	21.9	25.4	28.2	9.0	22.6	3.3	2.5	0.4	113.3
2007–08	21.8	25.2	28.7	9.0	23.7	3.4	2.5	0.4	114.8
2008–09	21.6	24.0	27.3	8.7	23.0	3.2	2.5	0.4	110.8
2009–10	23.0	24.3	28.1	9.0	24.6	3.4	2.6	0.4	115.4
2010–11	25.2	25.9	30.7	9.5	28.2	3.3	2.6	0.5	125.9
2011–12	26.7	26.8	32.5	9.8	30.9	3.2	2.7	0.5	133.2
2012–13	27.0	26.4	33.7	9.6	34.2	3.2	2.8	0.5	137.5
2013–14	27.3	25.9	35.1	9.5	37.8	3.3	2.9	0.5	142.2
2014–15	25.6	27.2	36.1	9.4	36.2	3.3	2.6	0.5	141.0
2015–16	26.3	30.6	37.7	9.6	35.0	3.4	2.4	0.6	145.6

Source: BITRE estimates.

Table T 2.3b Intrastate freight by state/territory, by transport mode—rail

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
	billion tonne–kilometres								
2007–08	16.8	0.7	45.1	2.1	105.0	0.5	0.8	na	171.0
2008–09	17.6	0.4	50.6	1.8	137.0	0.3	1.1	na	208.9
2009–10	18.3	0.4	54.9	2.0	154.0	0.1	1.2	na	231.0

na: not applicable.
Source: BITRE (2012).

Table T 2.3c Intrastate freight by state/territory, by transport mode—shipping

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
	billion tonne–kilometres								
1995–96	0.1	0.0	19.3	0.1	3.6	0.2	0.0	na	23.4
1996–97	0.1	0.0	20.9	0.2	3.8	0.0	0.0	na	25.0
1997–98	0.2	0.0	20.8	0.1	4.0	0.1	0.0	na	25.3
1998–99	0.1	0.1	19.8	0.1	2.9	0.2	0.1	na	23.3
1999–00	0.1	0.0	23.7	0.2	3.3	0.2	0.1	na	27.6
2000–01	0.1	0.0	24.1	0.2	6.6	0.1	0.1	na	31.1
2001–02	0.1	0.0	24.1	0.2	5.6	0.6	0.1	na	30.6
2002–03	0.0	0.0	24.4	0.2	5.7	0.1	0.1	na	30.6
2003–04	0.0	0.0	24.7	0.2	5.3	0.1	0.0	na	30.3
2004–05	0.0	0.0	27.5	0.2	4.4	0.1	0.1	na	32.3
2005–06	0.0	0.0	31.3	0.2	3.7	0.1	0.0	na	35.3
2006–07	0.0	0.1	32.2	0.2	5.5	0.1	0.0	na	38.2
2007–08	0.0	0.1	32.1	0.2	5.6	0.1	0.0	na	38.1
2008–09	0.0	0.1	32.1	0.1	4.1	0.1	0.0	na	36.6
2009–10	0.0	0.0	32.3	0.1	1.4	0.1	0.0	na	34.1
2010–11	0.0	0.0	32.4	0.2	1.6	0.1	0.1	na	34.4
2011–12	0.0	0.1	33.0	0.3	1.3	0.1	0.0	na	34.8
2012–13	0.0	0.0	39.1	0.2	2.5	0.1	0.0	na	41.9
2013–14	0.0	0.0	39.6	0.1	4.0	0.1	0.0	na	43.9
2014–15	0.1	0.0	39.8	0.2	1.0	0.1	0.0	na	41.3
2015–16	0.0	0.0	39.5	0.1	2.0	0.1	0.0	na	41.8
2016–17	0.1	0.0	37.6	0.1	1.7	0.1	0.0	na	39.7

na: not applicable.
Source: BITRE estimates.

Table T 2.4a Interstate freight by state/territory, by transport mode—road

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
	billion tonne–kilometres								
1979–80	5.2	2.6	0.7	1.1	0.6	na	0.2	0.0	10.4
1980–81	5.6	2.8	0.8	1.2	0.7	na	0.2	0.0	11.3
1981–82	6.1	3.0	0.8	1.3	0.7	na	0.2	0.0	12.2
1982–83	5.8	2.9	0.8	1.3	0.8	na	0.2	0.0	11.8
1983–84	6.4	3.2	0.9	1.4	0.8	na	0.3	0.0	12.9
1984–85	7.3	3.6	1.0	1.5	0.9	na	0.3	0.0	14.6
1985–86	8.1	3.9	1.1	1.7	0.9	na	0.3	0.0	16.2
1986–87	8.6	4.2	1.2	1.8	1.0	na	0.3	0.0	17.2
1987–88	9.8	4.7	1.4	2.0	1.1	na	0.4	0.0	19.5
1988–89	11.4	5.4	1.6	2.3	1.2	na	0.5	0.0	22.4
1989–90	12.3	5.9	1.8	2.5	1.3	na	0.5	0.0	24.3
1990–91	12.0	5.8	1.7	2.6	1.3	na	0.5	0.0	23.9
1991–92	12.6	6.1	1.8	2.7	1.4	na	0.5	0.0	25.2
1992–93	13.9	6.7	2.0	3.0	1.5	na	0.6	0.0	27.7
1993–94	15.0	7.3	2.2	3.3	1.6	na	0.6	0.0	30.1
1994–95	16.7	8.0	2.5	3.7	1.8	na	0.7	0.0	33.4
1995–96	17.3	8.4	2.6	3.9	1.8	na	0.7	0.0	34.6
1996–97	18.3	9.0	2.7	4.2	1.9	na	0.7	0.0	36.9
1997–98	20.0	9.8	3.0	4.6	2.0	na	0.8	0.0	40.3
1998–99	24.3	11.6	3.7	5.2	2.3	na	1.0	0.0	48.1
1999–00	25.8	12.2	4.0	5.4	2.3	na	1.0	0.0	50.7
2000–01	24.9	11.8	3.8	5.2	2.2	na	1.0	0.0	49.0
2001–02	26.1	12.3	4.0	5.4	2.2	na	1.1	0.0	51.2
2002–03	28.0	13.0	4.3	5.6	2.3	na	1.1	0.0	54.5
2003–04	30.1	13.5	4.7	5.7	2.4	na	1.2	0.0	57.7
2004–05	32.6	14.1	5.1	5.8	2.5	na	1.3	0.0	61.4
2005–06	34.9	15.3	5.4	6.1	2.6	na	1.4	0.1	65.7
2006–07	33.8	14.9	5.2	5.9	2.5	na	1.3	0.0	63.7
2007–08	36.5	15.9	5.7	6.3	2.7	na	1.4	0.1	68.5
2008–09	37.1	16.2	5.7	6.4	2.7	na	1.4	0.1	69.6
2009–10	37.6	16.3	5.9	6.5	2.6	na	1.5	0.1	70.4
2010–11	35.1	15.6	5.5	6.6	2.6	na	1.4	0.1	66.9
2011–12	31.8	14.4	5.2	6.3	2.7	na	1.5	0.0	61.9
2012–13	31.9	14.9	5.1	5.9	2.3	na	1.4	0.0	61.7
2013–14	31.7	15.3	5.0	5.6	2.1	na	1.4	0.0	61.2
2014–15	32.0	15.1	5.1	5.5	2.0	na	1.4	0.0	61.3
2015–16	30.9	13.3	5.3	5.5	2.1	na	1.5	0.0	58.7
2016–17	32.7	14.6	5.5	5.9	2.5	na	1.5	0.0	62.7
2017–18	34.2	15.4	5.7	6.4	2.9	na	1.6	0.0	66.3
2018–19	35.2	15.7	5.9	6.6	2.9	na	1.6	0.0	68.0

na: not applicable.
Source: BITRE estimates.

Table T 2.4b Interstate freight by state/territory, by transport mode—shipping

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
					billion tonne–kilometres				
1995–96	4.6	8.5	4.8	9.0	50.7	3.5	1.6	na	82.7
1996–97	5.4	8.8	4.7	9.5	53.8	3.2	2.2	na	87.6
1997–98	5.4	10.3	4.8	9.6	56.5	2.3	2.8	na	91.7
1998–99	4.8	7.8	4.9	9.6	52.2	3.3	2.8	na	85.4
1999–00	6.2	8.8	6.6	9.4	43.0	3.9	3.3	na	81.2
2000–01	7.3	9.4	6.6	8.9	35.2	2.8	3.1	na	73.3
2001–02	5.1	6.6	6.8	9.4	44.3	5.1	2.4	na	79.8
2002–03	5.6	7.5	7.2	9.9	46.1	5.6	2.2	na	84.3
2003–04	4.9	6.5	9.1	8.0	50.3	5.4	2.6	na	86.8
2004–05	5.3	6.6	9.6	8.3	43.7	4.5	3.5	na	81.5
2005–06	5.3	9.0	9.9	8.7	47.2	4.4	2.4	na	86.9
2006–07	6.2	8.9	9.7	9.2	50.8	4.3	0.2	na	89.4
2007–08	6.0	8.0	11.7	10.3	40.8	4.4	2.5	na	83.6
2008–09	5.0	6.1	9.9	9.2	35.9	3.8	2.8	na	72.7
2009–10	5.9	6.1	8.8	8.1	48.3	3.4	1.4	na	82.0
2010–11	4.7	5.7	9.7	8.5	44.0	3.4	2.8	na	78.8
2011–12	5.2	5.8	10.6	8.8	31.7	3.2	2.2	na	67.5
2012–13	4.5	5.3	8.5	8.4	30.3	2.9	2.3	na	62.3
2013–14	4.7	5.1	9.4	9.7	26.9	3.2	2.4	na	61.4
2014–15	3.7	4.4	8.3	11.4	29.2	3.1	3.8	na	64.0
2015–16	3.8	4.5	9.4	11.0	28.8	3.5	7.3	na	68.4
2016–17	3.1	4.3	8.3	8.9	29.3	3.6	10.7	na	68.1

na: not applicable.
Source: BITRE (2019), BITRE estimates.

Table T 2.5 Metropolitan road freight, by capital city

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Total captial cities
	billion tonne kilometres								
1973–74	3.0	2.1	0.7	0.7	0.8	0.1	0.0	0.1	7.7
1974–75	3.1	2.2	0.7	0.7	0.9	0.1	0.1	0.1	7.9
1975–76	3.5	2.5	0.9	0.8	1.0	0.2	0.1	0.1	9.1
1976–77	3.6	2.6	0.9	0.9	1.0	0.2	0.1	0.1	9.3
1977–78	3.8	2.7	1.0	0.9	1.1	0.2	0.1	0.1	9.9
1978–79	4.1	3.0	1.2	1.0	1.2	0.2	0.1	0.2	10.9
1979–80	4.1	3.0	1.3	1.0	1.2	0.2	0.1	0.2	11.0
1980–81	4.3	3.3	1.5	1.1	1.3	0.2	0.1	0.2	12.0
1981–82	4.6	3.5	1.7	1.1	1.4	0.2	0.1	0.2	12.8
1982–83	5.0	3.9	1.9	1.1	1.6	0.3	0.2	0.2	14.0
1983–84	5.3	4.1	2.2	1.1	1.7	0.3	0.2	0.2	15.0
1984–85	5.1	4.1	2.1	1.0	1.6	0.3	0.2	0.2	14.6
1985–86	5.4	4.4	2.3	1.1	1.7	0.3	0.2	0.2	15.6
1986–87	5.8	4.7	2.5	1.2	1.8	0.3	0.2	0.2	16.6
1987–88	6.1	5.0	2.6	1.3	1.9	0.3	0.2	0.2	17.6
1988–89	6.1	5.1	2.6	1.3	1.9	0.3	0.2	0.2	17.8
1989–90	6.4	5.5	2.8	1.4	2.1	0.3	0.2	0.3	19.0
1990–91	6.9	5.9	3.0	1.5	2.3	0.4	0.2	0.3	20.4
1991–92	7.1	6.2	3.1	1.5	2.4	0.4	0.3	0.3	21.3
1992–93	6.8	6.1	3.0	1.4	2.3	0.4	0.2	0.3	20.5
1993–94	6.8	6.1	3.0	1.4	2.3	0.3	0.2	0.3	20.5
1994–95	7.0	6.4	3.2	1.5	2.4	0.3	0.2	0.3	21.2
1995–96	7.2	6.6	3.3	1.5	2.5	0.3	0.2	0.2	21.8
1996–97	7.6	7.1	3.5	1.6	2.7	0.3	0.2	0.2	23.4
1997–98	7.9	7.4	3.7	1.7	2.8	0.3	0.2	0.2	24.4
1998–99	8.2	7.7	3.9	1.8	2.9	0.3	0.2	0.2	25.3
1999–00	8.6	8.1	4.2	1.9	3.0	0.3	0.2	0.3	26.6
2000–01	8.9	8.6	4.6	1.9	3.2	0.3	0.2	0.3	28.0
2001–02	9.2	9.0	5.0	2.0	3.3	0.3	0.2	0.2	29.2
2002–03	9.3	9.1	5.2	2.0	3.4	0.3	0.2	0.2	29.6
2003–04	9.5	9.5	5.5	2.0	3.5	0.3	0.2	0.2	30.8
2004–05	9.9	9.8	6.0	2.1	3.7	0.3	0.2	0.2	32.3
2005–06	10.3	10.2	6.5	2.2	4.1	0.3	0.2	0.2	34.1
2006–07	10.5	10.4	6.9	2.3	4.3	0.3	0.2	0.2	35.2
2007–08	10.5	10.8	7.1	2.3	4.5	0.4	0.2	0.2	36.1
2008–09	10.7	11.3	7.4	2.4	5.1	0.4	0.3	0.3	37.7
2009–10	11.2	11.8	7.7	2.5	5.4	0.4	0.3	0.3	39.6
2010–11	11.2	12.0	7.8	2.5	5.5	0.4	0.3	0.3	39.9
2011–12	11.5	12.4	8.0	2.6	5.7	0.4	0.3	0.3	41.1
2012–13	11.8	12.8	8.3	2.6	6.0	0.4	0.3	0.3	42.5
2013–14	12.1	13.4	8.6	2.7	6.3	0.5	0.3	0.3	44.1
2014–15	12.2	13.6	8.7	2.7	6.5	0.5	0.3	0.3	44.8
2015–16	12.4	13.8	8.8	2.7	6.7	0.5	0.3	0.3	45.5
2016–17	12.7	14.2	9.0	2.8	6.6	0.5	0.3	0.3	46.3
2017–18	12.7	14.2	9.0	2.8	6.3	0.5	0.3	0.3	46.1
2018–19	13.0	14.5	9.1	2.9	6.0	0.5	0.3	0.3	46.5

Note: Greater Capital City Statistical Areas are used for each capital city.
Source: BITRE estimates.

CHAPTER 3
Passengers

Table T 3.1 Total national passenger travel, by transport mode

Financial year	Passenger cars	Buses	Rail	Air	Other	Total
			billion passenger kilometres			
1976–77	135.96	7.50	8.87	7.99	18.08	178.40
1977–78	140.52	7.60	8.66	8.90	18.99	184.66
1978–79	144.42	7.70	8.50	9.40	19.36	189.38
1979–80	144.94	8.16	8.82	10.36	19.26	191.52
1980–81	147.14	8.72	9.11	10.70	19.69	195.37
1981–82	154.29	9.22	9.09	11.15	20.09	203.84
1982–83	154.81	10.46	8.93	10.27	19.82	204.29
1983–84	161.84	11.71	8.85	10.64	21.08	214.11
1984–85	167.93	13.02	8.83	11.34	21.99	223.12
1985–86	173.05	14.00	9.23	12.34	22.14	230.77
1986–87	176.78	15.03	9.51	13.16	22.23	236.71
1987–88	185.47	16.02	9.98	14.46	22.80	248.73
1988–89	194.41	16.87	10.22	15.07	23.76	260.32
1989–90	200.05	17.73	10.03	11.26	23.73	262.81
1990–91	200.49	17.04	10.06	15.98	22.88	266.44
1991–92	204.51	16.57	9.96	20.72	22.98	274.74
1992–93	210.81	16.51	9.74	20.99	23.39	281.44
1993–94	216.15	16.31	9.96	24.43	24.08	290.93
1994–95	222.87	16.10	10.34	26.98	25.39	301.68
1995–96	226.01	16.62	10.70	28.98	25.90	308.21
1996–97	227.68	16.43	10.98	29.98	25.95	311.01
1997–98	229.90	16.59	10.95	30.44	26.68	314.56
1998–99	235.27	16.65	11.16	31.06	27.16	321.30
1999–00	239.81	17.00	11.55	32.84	27.60	328.81
2000–01	237.16	17.26	12.15	35.68	27.89	330.15
2001–02	243.17	17.35	12.01	33.01	28.90	334.44
2002–03	249.45	17.69	12.02	35.83	29.73	344.72
2003–04	261.37	17.76	12.09	41.15	30.65	363.02
2004–05	262.06	17.84	12.06	45.90	30.89	368.75
2005–06	257.21	18.27	12.59	48.70	31.60	368.37
2006–07	260.42	18.53	13.21	53.01	32.82	378.01
2007–08	261.87	18.88	14.28	57.24	34.71	386.98
2008–09	260.70	19.24	15.00	58.63	36.02	389.60
2009–10	262.23	19.54	14.99	60.22	38.27	395.26
2010–11	264.86	19.93	15.28	64.56	39.35	403.97
2011–12	267.18	20.41	15.57	66.43	39.93	409.53
2012–13	269.62	20.77	15.54	69.67	40.99	416.60
2013–14	273.50	21.17	15.57	70.86	42.00	423.09
2014–15	278.75	21.30	16.02	70.13	43.15	429.36
2015–16	285.56	21.63	16.50	71.44	44.51	439.65
2016–17	290.38	22.09	17.04	72.09	46.06	447.67
2017–18	291.37	22.53	17.59	73.48	47.68	452.65

See end notes.

Note: Bus and rail pkm values are trend estimates – subject to later revision when final data become available.

Source: BITRE estimates.

Table T 3.2a Inter-capital city passenger travel by city pair—all modes

Financial year	Syd–Mel	Syd–Can	Syd–Bne	Mel–Adl	Mel–Bne	Syd–Adl
	thousand passenger movements					
1999–00	7 169	9 519	5 283	2 554	2 008	1 407
2000–01	8 314	8 616	6 171	2 708	2 477	1 737
2001–02	7 293	9 225	5 400	2 664	2 638	1 397
2002–03	7 066	8 556	5 376	2 588	2 630	1 371
2003–04	7 303	8 681	5 459	2 744	2 948	1 533
2004–05	7 652	7 732	5 511	2 756	2 912	1 525
2005–06	7 761	7 230	5 287	2 805	2 911	1 572
2006–07	8 074	7 741	5 280	2 832	3 038	1 647
2007–08	8 297	7 738	5 834	2 906	3 000	1 755
2008–09	8 213	7 945	5 630	2 939	3 034	1 685
2009–10	8 814	8 157	5 804	3 064	3 119	1 899
2010–11	9 186	8 877	5 952	3 082	3 487	1 965
2011–12	8 915	8 992	5 518	2 924	3 469	1 792
2012–13	9 290	9 237	5 639	2 983	3 490	1 823
2013–14	9 487	9 095	5 554	3 138	3 543	1 968
2014–15	9 940	9 948	5 856	3 163	3 614	1 995
2015–16	10 471	9 698	6 272	3 310	3 735	2 048
2016–17	10 645	10 889	6 502	3 499	3 905	2 039
2017–18	11 329	11 539	6 703	3 704	3 913	2 085
2018–19	11 497	12 637	6 839	3 861	4 011	2 048

Source: TRA (2019), BITRE (2019a), BITRE estimates

Table T 3.2b Inter-capital city passenger travel by city pair—car

Financial year	Syd–Mel	Syd–Can	Syd–Bne	Mel–Adl	Mel–Bne	Syd–Adl
	thousand passenger movements					
1999–00	1 252	7 814	1 531	916	246	172
2000–01	1 723	7 070	1 440	1 005	232	405
2001–02	1 550	8 025	1 365	1 018	389	197
2002–03	1 410	7 298	1 571	960	367	103
2003–04	1 003	7 395	1 227	931	418	132
2004–05	1 110	6 483	1 327	829	297	159
2005–06	1 201	5 962	1 259	814	351	176
2006–07	1 155	6 364	1 086	806	358	107
2007–08	1 061	6 220	1 313	706	204	141
2008–09	1 134	6 504	1 114	639	262	105
2009–10	983	6 626	1 189	861	262	153
2010–11	1 103	7 157	1 314	671	258	156
2011–12	1 020	7 454	977	735	258	60
2012–13	896	7 629	1 044	769	295	54
2013–14	1 018	7 492	882	807	228	159
2014–15	1 262	8 481	1 255	758	234	140
2015–16	1 431	8 105	1 429	865	253	155
2016–17	1 436	9 243	1 575	959	335	126
2017–18	1 796	9 689	1 675	1 095	309	143
2018–19	1 937	10 961	1 716	1 222	346	139

Source: TRA (2019), BITRE estimates.

Table T 3.2c Inter-capital city passenger travel by city pair—air

Financial year	Syd–Mel	Syd–Can	Syd–Bne	Mel–Adl	Mel–Bne	Syd–Adl
	thousand passenger movements					
1999–00	5 014	836	3 052	1 313	1 609	1 126
2000–01	5 421	882	3 266	1 352	1 703	1 172
2001–02	6 183	929	4 329	1 422	2 153	1 250
2002–03	5 424	725	3 718	1 403	2 227	1 161
2003–04	5 357	737	3 503	1 428	2 210	1 242
2004–05	5 964	857	3 914	1 569	2 449	1 351
2005–06	6 273	792	3 834	1 731	2 542	1 345
2006–07	6 237	786	3 758	1 839	2 488	1 352
2007–08	6 625	829	3 935	1 862	2 633	1 483
2008–09	6 993	887	4 246	1 989	2 699	1 577
2009–10	6 811	984	4 263	2 196	2 699	1 552
2010–11	7 640	1 074	4 333	2 097	2 796	1 721
2011–12	7 907	1 085	4 449	2 299	3 111	1 779
2012–13	7 728	1 058	4 353	2 071	3 152	1 710
2013–14	8 201	1 041	4 426	2 115	3 163	1 754
2014–15	8 275	994	4 454	2 242	3 276	1 779
2015–16	8 455	962	4 408	2 283	3 320	1 817
2016–17	8 796	949	4 608	2 363	3 439	1 870
2017–18	8 974	955	4 696	2 413	3 500	1 886
2018–19	9 240	952	4 788	2 487	3 557	1 909

Source: TRA (2019), BITRE estimates.

Table T 3.2d Inter-capital city passenger travel by city pair—rail, coach and other

Financial year	Syd–Mel	Syd–Can	Syd–Bne	Mel–Adl	Mel–Bne	Syd–Adl
	thousand passenger movements					
1999–00	496	823	486	286	59	64
2000–01	408	617	402	281	92	82
2001–02	320	475	317	243	21	39
2002–03	300	520	303	199	54	25
2003–04	337	428	317	244	81	50
2004–05	270	456	350	195	73	21
2005–06	323	482	270	153	71	44
2006–07	293	548	259	164	48	56
2007–08	243	631	275	212	97	37
2008–09	268	458	254	104	73	29
2009–10	191	457	282	106	61	24
2010–11	176	635	189	113	119	31
2011–12	166	479	188	118	58	22
2012–13	193	567	169	99	33	16
2013–14	194	609	218	88	39	31
2014–15	224	506	193	122	59	38
2015–16	245	644	235	83	43	23
2016–17	235	690	231	127	69	27
2017–18	292	898	240	122	46	34
2018–19	363	749	308	132	71	32

Source: TRA (2019), BITRE estimates.

Table T 3.3a Total passenger kilometres travelled by capital city—Sydney

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry	Total
	billion passenger kilometres							
1976–77	24.13	2.02	0.24	3.14	0.00	1.57	0.10	31.20
1977–78	24.80	2.10	0.24	3.09	0.00	1.60	0.11	31.94
1978–79	25.59	2.15	0.25	3.09	0.00	1.59	0.11	32.78
1979–80	25.79	2.13	0.27	3.52	0.00	1.63	0.12	33.48
1980–81	26.15	2.18	0.29	3.64	0.00	1.69	0.13	34.07
1981–82	27.17	2.26	0.32	3.76	0.00	1.68	0.14	35.33
1982–83	26.97	2.22	0.33	3.55	0.00	1.72	0.15	34.94
1983–84	28.34	2.37	0.34	3.47	0.00	1.76	0.15	36.42
1984–85	29.65	2.47	0.34	3.45	0.00	1.81	0.15	37.87
1985–86	30.51	2.54	0.31	3.72	0.00	1.84	0.16	39.09
1986–87	31.20	2.56	0.29	3.81	0.00	1.91	0.17	39.94
1987–88	32.59	2.63	0.27	4.13	0.00	1.97	0.15	41.74
1988–89	33.83	2.68	0.27	4.18	0.01	2.00	0.16	43.14
1989–90	34.70	2.63	0.24	4.29	0.01	1.96	0.18	44.01
1990–91	34.69	2.47	0.21	4.37	0.01	2.01	0.15	43.90
1991–92	35.29	2.47	0.20	4.27	0.01	2.01	0.13	44.39
1992–93	36.35	2.51	0.20	4.12	0.01	1.95	0.11	45.25
1993–94	37.20	2.60	0.20	4.22	0.01	1.98	0.11	46.32
1994–95	38.26	2.78	0.19	4.51	0.01	2.02	0.12	47.88
1995–96	38.48	2.91	0.18	4.62	0.01	2.08	0.12	48.41
1996–97	38.43	2.97	0.18	4.76	0.01	2.13	0.13	48.62
1997–98	38.99	3.09	0.17	4.80	0.01	2.18	0.12	49.36
1998–99	39.93	3.19	0.16	4.88	0.02	2.21	0.12	50.52
1999–00	40.94	3.27	0.16	5.05	0.02	2.21	0.12	51.77
2000–01	40.68	3.32	0.16	5.44	0.02	2.21	0.14	51.97
2001–02	41.52	3.40	0.17	5.06	0.02	2.12	0.13	52.41
2002–03	42.18	3.48	0.16	5.07	0.02	2.12	0.13	53.16
2003–04	44.28	3.57	0.17	5.12	0.02	2.10	0.13	55.38
2004–05	44.55	3.56	0.18	5.16	0.02	2.11	0.13	55.72
2005–06	43.70	3.59	0.20	5.28	0.02	2.11	0.13	55.03
2006–07	43.99	3.71	0.22	5.46	0.02	2.15	0.13	55.67
2007–08	44.26	3.89	0.24	5.76	0.02	2.22	0.13	56.51
2008–09	44.20	3.98	0.27	5.73	0.02	2.30	0.13	56.64
2009–10	44.63	4.17	0.30	5.56	0.02	2.29	0.14	57.11
2010–11	45.43	4.29	0.30	5.57	0.02	2.36	0.14	58.12
2011–12	45.71	4.40	0.29	5.78	0.02	2.43	0.14	58.77
2012–13	46.20	4.52	0.30	5.80	0.02	2.45	0.14	59.42
2013–14	46.77	4.60	0.31	5.93	0.01	2.46	0.15	60.23
2014–15	47.72	4.68	0.31	6.18	0.02	2.46	0.14	61.51
2015–16	49.03	4.77	0.32	6.46	0.04	2.49	0.15	63.26
2016–17	50.05	4.99	0.32	6.91	0.04	2.54	0.15	65.00
2017–18	50.32	5.20	0.32	7.32	0.04	2.72	0.15	66.07
2018–19	49.96	5.28	0.32	7.73	0.04	2.91	0.15	66.40

Source: BITRE estimates.

Table T 3.3b Total passenger kilometres travelled by capital city—Melbourne

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry	Total
	billion passenger kilometres							
1976–77	21.79	1.96	0.20	1.91	0.53	0.56	na	26.94
1977–78	22.76	2.09	0.20	1.81	0.53	0.56	na	27.95
1978–79	23.54	2.09	0.19	1.71	0.53	0.57	na	28.63
1979–80	23.76	2.00	0.19	1.60	0.52	0.58	na	28.66
1980–81	24.29	1.95	0.19	1.53	0.53	0.59	na	29.09
1981–82	25.83	1.95	0.20	1.39	0.54	0.61	na	30.51
1982–83	26.07	1.86	0.20	1.41	0.53	0.62	na	30.69
1983–84	27.08	1.97	0.21	1.44	0.54	0.64	na	31.88
1984–85	27.98	2.05	0.21	1.45	0.60	0.68	na	32.97
1985–86	29.07	2.21	0.20	1.54	0.62	0.71	na	34.36
1986–87	29.91	2.34	0.20	1.60	0.63	0.74	na	35.43
1987–88	31.46	2.54	0.20	1.53	0.65	0.78	na	37.15
1988–89	32.96	2.71	0.22	1.61	0.66	0.81	na	38.98
1989–90	33.74	2.74	0.20	1.63	0.53	0.85	na	39.71
1990–91	33.51	2.68	0.19	1.63	0.59	0.85	na	39.45
1991–92	33.97	2.73	0.19	1.76	0.59	0.81	na	40.06
1992–93	34.63	2.80	0.20	1.81	0.51	0.81	na	40.77
1993–94	35.30	2.89	0.20	1.81	0.51	0.84	na	41.55
1994–95	36.30	3.02	0.20	1.94	0.51	0.86	na	42.84
1995–96	37.03	2.96	0.20	1.99	0.52	0.88	na	43.58
1996–97	37.41	2.92	0.20	1.97	0.52	0.88	na	43.90
1997–98	38.15	2.97	0.20	1.90	0.52	0.90	na	44.64
1998–99	39.21	2.98	0.19	1.99	0.53	0.92	na	45.81
1999–00	40.12	2.98	0.19	2.11	0.56	0.93	na	46.89
2000–01	40.14	3.04	0.20	2.19	0.58	0.94	na	47.09
2001–02	40.88	3.12	0.21	2.30	0.59	0.95	na	48.05
2002–03	41.64	3.18	0.21	2.34	0.60	0.96	na	48.92
2003–04	43.04	3.26	0.22	2.41	0.60	0.96	na	50.50
2004–05	43.27	3.30	0.24	2.48	0.61	0.95	na	50.84
2005–06	42.80	3.38	0.26	2.78	0.62	0.96	na	50.80
2006–07	42.83	3.52	0.27	3.07	0.63	1.02	na	51.34
2007–08	43.39	3.69	0.27	3.48	0.65	1.13	na	52.61
2008–09	42.89	3.80	0.27	3.72	0.71	1.23	na	52.63
2009–10	43.57	3.99	0.28	3.82	0.70	1.29	na	53.64
2010–11	44.45	4.12	0.27	3.98	0.73	1.36	na	54.91
2011–12	45.12	4.23	0.26	3.86	0.77	1.53	na	55.77
2012–13	45.80	4.31	0.27	3.92	0.73	1.46	na	56.50
2013–14	46.68	4.45	0.27	3.94	0.71	1.53	na	57.58
2014–15	47.76	4.58	0.27	3.96	0.73	1.53	na	58.83
2015–16	48.98	4.73	0.28	4.06	0.78	1.52	na	60.36
2016–17	50.11	4.93	0.28	4.12	0.80	1.47	na	61.71
2017–18	50.50	5.21	0.28	4.19	0.80	1.48	na	62.46
2018–19	50.72	5.29	0.28	4.25	0.80	1.54	na	62.88

na: not applicable.
Source: BITRE estimates.

Table T 3.3c Total passenger kilometres travelled by capital city—Brisbane

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry	Total
	billion passenger kilometres							
1976–77	7.82	0.86	0.14	0.38	na	0.49	0.00	9.70
1977–78	8.21	0.95	0.14	0.37	na	0.51	0.00	10.17
1978–79	8.60	1.01	0.14	0.35	na	0.50	0.00	10.61
1979–80	8.78	1.02	0.15	0.38	na	0.49	0.00	10.83
1980–81	9.16	1.03	0.16	0.42	na	0.45	0.00	11.23
1981–82	9.88	1.07	0.17	0.46	na	0.47	0.00	12.05
1982–83	10.07	1.08	0.17	0.47	na	0.49	0.00	12.29
1983–84	10.50	1.21	0.17	0.52	na	0.47	0.00	12.87
1984–85	10.82	1.29	0.18	0.55	na	0.49	0.00	13.33
1985–86	11.40	1.37	0.17	0.62	na	0.49	0.00	14.04
1986–87	11.68	1.43	0.17	0.68	na	0.51	0.00	14.47
1987–88	12.39	1.50	0.18	0.74	na	0.55	0.00	15.36
1988–89	13.23	1.54	0.21	0.85	na	0.61	0.00	16.44
1989–90	13.69	1.54	0.20	0.78	na	0.58	0.00	16.80
1990–91	13.94	1.49	0.20	0.79	na	0.62	0.00	17.04
1991–92	14.53	1.50	0.21	0.75	na	0.64	0.00	17.63
1992–93	15.28	1.53	0.21	0.74	na	0.63	0.00	18.39
1993–94	15.80	1.62	0.20	0.72	na	0.66	0.00	19.00
1994–95	16.46	1.79	0.19	0.70	na	0.72	0.01	19.86
1995–96	16.87	1.93	0.17	0.74	na	0.71	0.01	20.43
1996–97	17.01	1.99	0.17	0.79	na	0.71	0.01	20.68
1997–98	17.34	2.14	0.16	0.80	na	0.71	0.01	21.15
1998–99	17.70	2.19	0.15	0.81	na	0.65	0.01	21.51
1999–00	18.21	2.25	0.15	0.87	na	0.69	0.01	22.17
2000–01	18.24	2.28	0.16	0.94	na	0.70	0.01	22.32
2001–02	18.81	2.40	0.17	0.96	na	0.72	0.01	23.06
2002–03	19.36	2.48	0.16	0.97	na	0.74	0.01	23.73
2003–04	20.70	2.57	0.17	1.01	na	0.78	0.01	25.25
2004–05	21.12	2.59	0.18	0.99	na	0.84	0.02	25.74
2005–06	21.10	2.64	0.20	1.07	na	0.94	0.02	25.96
2006–07	21.75	2.75	0.22	1.05	na	0.98	0.02	26.77
2007–08	22.35	2.93	0.24	1.08	na	1.03	0.02	27.65
2008–09	22.18	3.05	0.25	1.17	na	1.11	0.02	27.79
2009–10	22.34	3.29	0.25	1.13	na	1.19	0.02	28.22
2010–11	22.59	3.36	0.24	1.10	na	1.24	0.02	28.55
2011–12	22.94	3.48	0.24	1.10	na	1.29	0.02	29.06
2012–13	23.33	3.59	0.24	1.06	na	1.30	0.02	29.54
2013–14	23.69	3.66	0.25	1.05	na	1.29	0.02	29.98
2014–15	24.24	3.77	0.25	1.07	na	1.26	0.03	30.61
2015–16	24.99	3.89	0.26	1.08	na	1.27	0.03	31.52
2016–17	25.45	4.04	0.26	1.08	na	1.24	0.03	32.10
2017–18	25.62	4.14	0.26	1.12	na	1.27	0.03	32.42
2018–19	26.11	4.22	0.26	1.17	na	1.32	0.03	33.09

na: not applicable.
Source: BITRE estimates.

Table T 3.3d Total passenger kilometres travelled by capital city—Adelaide

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry	Total
	billion passenger kilometres							
1976–77	8.23	0.57	0.11	0.17	0.01	0.42	na	9.50
1977–78	8.46	0.59	0.11	0.16	0.01	0.43	na	9.77
1978–79	8.50	0.60	0.11	0.16	0.01	0.44	na	9.82
1979–80	8.30	0.58	0.11	0.18	0.02	0.46	na	9.64
1980–81	8.17	0.58	0.11	0.19	0.02	0.51	na	9.58
1981–82	8.48	0.58	0.12	0.20	0.02	0.52	na	9.93
1982–83	8.53	0.57	0.12	0.18	0.02	0.47	na	9.90
1983–84	8.94	0.63	0.12	0.17	0.02	0.48	na	10.37
1984–85	9.31	0.67	0.12	0.17	0.02	0.46	na	10.75
1985–86	9.62	0.67	0.11	0.18	0.02	0.47	na	11.07
1986–87	9.81	0.66	0.10	0.18	0.02	0.47	na	11.24
1987–88	10.20	0.68	0.10	0.13	0.02	0.50	na	11.62
1988–89	10.58	0.71	0.10	0.14	0.02	0.47	na	12.02
1989–90	10.75	0.71	0.09	0.14	0.02	0.50	na	12.20
1990–91	10.66	0.69	0.08	0.12	0.02	0.53	na	12.10
1991–92	10.75	0.70	0.08	0.11	0.01	0.53	na	12.19
1992–93	10.94	0.72	0.07	0.12	0.01	0.51	na	12.38
1993–94	10.94	0.74	0.07	0.15	0.02	0.52	na	12.44
1994–95	11.03	0.78	0.07	0.16	0.01	0.54	na	12.60
1995–96	11.00	0.80	0.07	0.15	0.01	0.54	na	12.57
1996–97	11.06	0.79	0.06	0.15	0.01	0.54	na	12.62
1997–98	11.22	0.81	0.06	0.14	0.01	0.54	na	12.79
1998–99	11.61	0.81	0.06	0.14	0.01	0.53	na	13.15
1999–00	12.00	0.80	0.06	0.13	0.01	0.53	na	13.53
2000–01	11.96	0.79	0.06	0.13	0.01	0.55	na	13.50
2001–02	12.13	0.80	0.06	0.14	0.02	0.56	na	13.71
2002–03	12.53	0.82	0.06	0.16	0.02	0.57	na	14.16
2003–04	12.66	0.83	0.07	0.18	0.02	0.57	na	14.32
2004–05	12.41	0.83	0.07	0.18	0.02	0.58	na	14.08
2005–06	12.17	0.84	0.08	0.19	0.02	0.61	na	13.90
2006–07	12.26	0.86	0.08	0.19	0.02	0.62	na	14.03
2007–08	11.91	0.91	0.09	0.19	0.02	0.63	na	13.76
2008–09	11.83	0.94	0.09	0.20	0.02	0.64	na	13.72
2009–10	11.95	0.98	0.09	0.19	0.03	0.65	na	13.90
2010–11	11.88	1.01	0.09	0.17	0.03	0.65	na	13.83
2011–12	11.80	1.03	0.09	0.16	0.03	0.65	na	13.75
2012–13	11.95	1.05	0.09	0.16	0.04	0.65	na	13.93
2013–14	12.21	1.08	0.09	0.17	0.05	0.65	na	14.25
2014–15	12.42	1.11	0.09	0.23	0.05	0.66	na	14.56
2015–16	12.66	1.15	0.09	0.24	0.05	0.66	na	14.85
2016–17	12.84	1.19	0.09	0.24	0.04	0.65	na	15.07
2017–18	12.89	1.25	0.09	0.25	0.05	0.65	na	15.17
2018–19	12.78	1.26	0.09	0.25	0.05	0.65	na	15.08

na: not applicable.
Source: BITRE estimates.

Table T 3.3e Total passenger kilometres travelled by capital city—Perth

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry	Total
	billion passenger kilometres							
1976–77	8.19	0.92	0.10	0.09	na	0.52	na	9.82
1977–78	8.61	0.97	0.10	0.10	na	0.53	na	10.31
1978–79	8.86	1.00	0.10	0.10	na	0.52	na	10.58
1979–80	8.88	1.00	0.11	0.08	na	0.56	na	10.63
1980–81	8.95	1.02	0.11	0.07	na	0.58	na	10.74
1981–82	9.45	1.03	0.13	0.07	na	0.55	na	11.22
1982–83	9.53	0.99	0.13	0.08	na	0.55	na	11.29
1983–84	10.15	1.04	0.14	0.11	na	0.48	na	11.91
1984–85	10.52	1.06	0.14	0.11	na	0.46	na	12.29
1985–86	10.90	1.07	0.13	0.12	na	0.50	na	12.72
1986–87	11.19	1.06	0.13	0.12	na	0.51	na	13.02
1987–88	11.78	1.10	0.13	0.12	na	0.51	na	13.64
1988–89	12.36	1.16	0.14	0.11	na	0.54	na	14.32
1989–90	12.73	1.19	0.13	0.11	na	0.57	na	14.73
1990–91	12.65	1.15	0.11	0.09	na	0.55	na	14.56
1991–92	12.85	1.17	0.11	0.12	na	0.53	na	14.77
1992–93	13.31	1.22	0.10	0.17	na	0.52	na	15.32
1993–94	14.06	1.30	0.09	0.30	na	0.51	na	16.26
1994–95	14.96	1.41	0.09	0.30	na	0.52	na	17.29
1995–96	15.28	1.49	0.09	0.34	na	0.52	na	17.71
1996–97	15.44	1.49	0.09	0.38	na	0.52	na	17.91
1997–98	15.66	1.51	0.08	0.39	na	0.53	na	18.17
1998–99	16.08	1.51	0.08	0.38	na	0.52	na	18.58
1999–00	16.31	1.52	0.08	0.39	na	0.55	na	18.85
2000–01	16.11	1.52	0.09	0.41	na	0.57	na	18.71
2001–02	16.44	1.58	0.09	0.41	na	0.59	na	19.11
2002–03	16.89	1.62	0.09	0.42	na	0.60	na	19.62
2003–04	17.74	1.68	0.10	0.42	na	0.62	na	20.56
2004–05	18.02	1.70	0.11	0.44	na	0.64	na	20.91
2005–06	17.68	1.74	0.12	0.46	na	0.65	na	20.65
2006–07	18.08	1.82	0.14	0.50	na	0.65	na	21.20
2007–08	18.18	1.93	0.15	0.66	na	0.62	na	21.53
2008–09	18.69	2.00	0.16	0.87	na	0.64	na	22.35
2009–10	18.56	2.10	0.16	0.90	na	0.64	na	22.36
2010–11	18.79	2.16	0.16	0.94	na	0.66	na	22.72
2011–12	19.18	2.24	0.16	1.02	na	0.71	na	23.31
2012–13	19.31	2.32	0.16	1.06	na	0.74	na	23.59
2013–14	19.70	2.40	0.17	1.03	na	0.75	na	24.04
2014–15	20.12	2.51	0.17	1.05	na	0.76	na	24.60
2015–16	20.77	2.61	0.17	1.02	na	0.74	na	25.32
2016–17	21.11	2.66	0.17	0.98	na	0.72	na	25.64
2017–18	21.09	2.72	0.17	0.99	na	0.71	na	25.68
2018–19	20.67	2.74	0.17	1.01	na	0.72	na	25.30

na: not applicable.
Source: BITRE estimates.

Table T 3.3f Total passenger kilometres travelled by capital city—Hobart

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry	Total
	billion passenger kilometres							
1976–77	1.23	0.13	0.01	na	na	0.12	na	1.51
1977–78	1.31	0.14	0.01	na	na	0.12	na	1.60
1978–79	1.37	0.15	0.01	na	na	0.11	na	1.64
1979–80	1.39	0.15	0.01	na	na	0.11	na	1.66
1980–81	1.42	0.15	0.01	na	na	0.11	na	1.69
1981–82	1.47	0.16	0.01	na	na	0.10	na	1.74
1982–83	1.47	0.17	0.01	na	na	0.09	na	1.74
1983–84	1.53	0.18	0.01	na	na	0.10	na	1.83
1984–85	1.59	0.20	0.01	na	na	0.10	na	1.90
1985–86	1.67	0.19	0.01	na	na	0.11	na	1.98
1986–87	1.68	0.19	0.01	na	na	0.11	na	1.99
1987–88	1.75	0.19	0.01	na	na	0.10	na	2.05
1988–89	1.82	0.19	0.01	na	na	0.10	na	2.12
1989–90	1.91	0.18	0.01	na	na	0.10	na	2.20
1990–91	1.92	0.17	0.01	na	na	0.10	na	2.20
1991–92	1.95	0.18	0.01	na	na	0.10	na	2.24
1992–93	2.02	0.19	0.01	na	na	0.10	na	2.33
1993–94	2.07	0.21	0.01	na	na	0.10	na	2.38
1994–95	2.10	0.22	0.01	na	na	0.10	na	2.43
1995–96	2.12	0.22	0.01	na	na	0.10	na	2.45
1996–97	2.12	0.22	0.01	na	na	0.09	na	2.45
1997–98	2.09	0.22	0.01	na	na	0.09	na	2.41
1998–99	2.08	0.22	0.01	na	na	0.09	na	2.40
1999–00	2.08	0.22	0.01	na	na	0.09	na	2.40
2000–01	2.02	0.22	0.01	na	na	0.09	na	2.35
2001–02	2.06	0.23	0.01	na	na	0.09	na	2.39
2002–03	2.14	0.23	0.01	na	na	0.09	na	2.47
2003–04	2.25	0.24	0.01	na	na	0.09	na	2.59
2004–05	2.20	0.24	0.01	na	na	0.09	na	2.55
2005–06	2.17	0.24	0.01	na	na	0.09	na	2.52
2006–07	2.19	0.25	0.01	na	na	0.09	na	2.55
2007–08	2.19	0.27	0.01	na	na	0.09	na	2.57
2008–09	2.16	0.28	0.01	na	na	0.10	na	2.55
2009–10	2.14	0.29	0.02	na	na	0.10	na	2.53
2010–11	2.12	0.29	0.01	na	na	0.10	na	2.53
2011–12	2.12	0.30	0.01	na	na	0.10	na	2.54
2012–13	2.11	0.31	0.01	na	na	0.10	na	2.53
2013–14	2.13	0.31	0.01	na	na	0.10	na	2.56
2014–15	2.14	0.32	0.02	na	na	0.10	na	2.58
2015–16	2.17	0.34	0.02	na	na	0.10	na	2.62
2016–17	2.18	0.35	0.02	na	na	0.10	na	2.64
2017–18	2.23	0.37	0.02	na	na	0.10	na	2.72
2018–19	2.27	0.37	0.02	na	na	0.11	na	2.76

na: not applicable.
Source: BITRE estimates.

Table T 3.3g Total passenger kilometres travelled by capital city—Darwin

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry	Total
	billion passenger kilometres							
1976–77	0.33	0.09	0.01	na	na	0.01	na	0.44
1977–78	0.35	0.10	0.01	na	na	0.01	na	0.46
1978–79	0.37	0.10	0.01	na	na	0.01	na	0.49
1979–80	0.38	0.10	0.01	na	na	0.02	na	0.51
1980–81	0.41	0.11	0.01	na	na	0.02	na	0.55
1981–82	0.45	0.11	0.01	na	na	0.02	na	0.60
1982–83	0.47	0.10	0.02	na	na	0.03	na	0.61
1983–84	0.51	0.11	0.02	na	na	0.03	na	0.66
1984–85	0.55	0.11	0.02	na	na	0.03	na	0.71
1985–86	0.61	0.12	0.01	na	na	0.03	na	0.77
1986–87	0.63	0.12	0.01	na	na	0.03	na	0.79
1987–88	0.65	0.12	0.01	na	na	0.03	na	0.82
1988–89	0.66	0.12	0.01	na	na	0.04	na	0.84
1989–90	0.68	0.12	0.01	na	na	0.04	na	0.86
1990–91	0.69	0.12	0.01	na	na	0.05	na	0.86
1991–92	0.70	0.12	0.01	na	na	0.05	na	0.88
1992–93	0.72	0.12	0.01	na	na	0.05	na	0.90
1993–94	0.74	0.13	0.01	na	na	0.05	na	0.93
1994–95	0.79	0.14	0.01	na	na	0.05	na	0.99
1995–96	0.83	0.14	0.01	na	na	0.06	na	1.04
1996–97	0.84	0.15	0.01	na	na	0.06	na	1.06
1997–98	0.86	0.16	0.01	na	na	0.06	na	1.08
1998–99	0.87	0.16	0.01	na	na	0.06	na	1.10
1999–00	0.88	0.16	0.01	na	na	0.06	na	1.11
2000–01	0.85	0.16	0.01	na	na	0.06	na	1.08
2001–02	0.86	0.16	0.01	na	na	0.06	na	1.09
2002–03	0.87	0.17	0.01	na	na	0.06	na	1.10
2003–04	0.89	0.17	0.01	na	na	0.06	na	1.14
2004–05	0.88	0.17	0.01	na	na	0.06	na	1.13
2005–06	0.87	0.18	0.01	na	na	0.06	na	1.13
2006–07	0.90	0.19	0.01	na	na	0.06	na	1.17
2007–08	0.93	0.20	0.01	na	na	0.07	na	1.21
2008–09	0.95	0.21	0.01	na	na	0.07	na	1.24
2009–10	0.95	0.22	0.01	na	na	0.07	na	1.26
2010–11	0.96	0.23	0.01	na	na	0.07	na	1.27
2011–12	0.97	0.23	0.01	na	na	0.07	na	1.29
2012–13	0.98	0.24	0.01	na	na	0.09	na	1.33
2013–14	1.01	0.25	0.01	na	na	0.11	na	1.38
2014–15	1.01	0.26	0.01	na	na	0.11	na	1.40
2015–16	1.04	0.26	0.01	na	na	0.11	na	1.42
2016–17	1.08	0.27	0.01	na	na	0.11	na	1.47
2017–18	1.11	0.29	0.01	na	na	0.11	na	1.52
2018–19	1.13	0.29	0.01	na	na	0.11	na	1.54

na: not applicable.
Source: BITRE estimates.

Table T 3.3h Total passenger kilometres travelled by capital city—Canberra

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus	Ferry	Total
	billion passenger kilometres							
1976–77	1.99	0.16	0.02	na	na	0.09	na	2.27
1977–78	2.08	0.18	0.02	na	na	0.09	na	2.37
1978–79	2.15	0.18	0.02	na	na	0.11	na	2.46
1979–80	2.17	0.18	0.03	na	na	0.12	na	2.50
1980–81	2.20	0.18	0.03	na	na	0.12	na	2.54
1981–82	2.34	0.19	0.03	na	na	0.12	na	2.68
1982–83	2.37	0.19	0.03	na	na	0.14	na	2.73
1983–84	2.49	0.20	0.04	na	na	0.16	na	2.89
1984–85	2.62	0.21	0.04	na	na	0.17	na	3.03
1985–86	2.74	0.22	0.04	na	na	0.16	na	3.16
1986–87	2.82	0.23	0.03	na	na	0.17	na	3.26
1987–88	2.99	0.24	0.03	na	na	0.18	na	3.44
1988–89	3.16	0.25	0.04	na	na	0.18	na	3.62
1989–90	3.29	0.25	0.03	na	na	0.18	na	3.76
1990–91	3.34	0.25	0.03	na	na	0.18	na	3.81
1991–92	3.45	0.25	0.03	na	na	0.18	na	3.91
1992–93	3.59	0.26	0.03	na	na	0.18	na	4.06
1993–94	3.70	0.26	0.03	na	na	0.18	na	4.16
1994–95	3.79	0.28	0.03	na	na	0.19	na	4.28
1995–96	3.82	0.29	0.03	na	na	0.19	na	4.33
1996–97	3.83	0.28	0.02	na	na	0.20	na	4.34
1997–98	3.84	0.29	0.02	na	na	0.20	na	4.36
1998–99	3.93	0.29	0.02	na	na	0.20	na	4.45
1999–00	4.02	0.30	0.02	na	na	0.19	na	4.53
2000–01	3.95	0.30	0.02	na	na	0.19	na	4.45
2001–02	4.02	0.31	0.03	na	na	0.18	na	4.54
2002–03	4.16	0.32	0.03	na	na	0.18	na	4.68
2003–04	4.34	0.33	0.03	na	na	0.18	na	4.87
2004–05	4.34	0.33	0.03	na	na	0.18	na	4.87
2005–06	4.28	0.33	0.03	na	na	0.18	na	4.82
2006–07	4.33	0.34	0.03	na	na	0.17	na	4.88
2007–08	4.35	0.36	0.04	na	na	0.17	na	4.91
2008–09	4.35	0.37	0.04	na	na	0.17	na	4.93
2009–10	4.38	0.38	0.04	na	na	0.18	na	4.98
2010–11	4.43	0.39	0.04	na	na	0.18	na	5.04
2011–12	4.51	0.41	0.04	na	na	0.18	na	5.13
2012–13	4.58	0.42	0.04	na	na	0.18	na	5.21
2013–14	4.63	0.43	0.04	na	na	0.18	na	5.27
2014–15	4.70	0.44	0.04	na	na	0.18	na	5.36
2015–16	4.81	0.46	0.04	na	na	0.18	na	5.48
2016–17	4.90	0.47	0.04	na	na	0.18	na	5.60
2017–18	4.94	0.49	0.04	na	na	0.19	na	5.66
2018–19	4.98	0.50	0.04	na	0.01	0.20	na	5.72

na: not applicable.
Source: BITRE estimates.

Table T 3.3i Total passenger kilometres travelled by capital city —Australian capital cities

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Heavy rail	Light rail	Bus [f]	Ferry	Total
	billion passenger kilometres							
1976–77	73.73	6.70	0.82	5.68	0.54	3.78	0.12	91.39
1977–78	76.58	7.11	0.83	5.53	0.54	3.86	0.12	94.57
1978–79	78.97	7.28	0.83	5.41	0.54	3.86	0.12	97.01
1979–80	79.45	7.16	0.88	5.77	0.54	3.98	0.13	97.92
1980–81	80.77	7.20	0.92	5.85	0.55	4.07	0.13	99.49
1981–82	85.07	7.35	1.00	5.88	0.56	4.07	0.14	104.06
1982–83	85.48	7.19	1.01	5.69	0.55	4.11	0.15	104.19
1983–84	89.53	7.72	1.04	5.70	0.56	4.12	0.15	108.83
1984–85	93.03	8.07	1.06	5.72	0.62	4.20	0.16	112.85
1985–86	96.53	8.38	0.99	6.18	0.64	4.31	0.16	117.19
1986–87	98.93	8.59	0.96	6.39	0.65	4.45	0.17	120.14
1987–88	103.80	8.99	0.94	6.65	0.67	4.62	0.15	125.82
1988–89	108.61	9.35	1.00	6.89	0.70	4.75	0.17	131.47
1989–90	111.50	9.37	0.92	6.94	0.56	4.79	0.18	134.27
1990–91	111.40	9.02	0.84	7.00	0.62	4.88	0.15	133.91
1991–92	113.50	9.11	0.84	7.02	0.62	4.85	0.13	136.06
1992–93	116.86	9.35	0.83	6.96	0.54	4.74	0.11	139.40
1993–94	119.80	9.75	0.81	7.20	0.54	4.82	0.12	143.03
1994–95	123.70	10.41	0.79	7.60	0.54	5.00	0.13	148.16
1995–96	125.43	10.75	0.75	7.84	0.55	5.08	0.13	150.52
1996–97	126.16	10.81	0.74	8.05	0.54	5.13	0.14	151.58
1997–98	128.15	11.19	0.71	8.03	0.54	5.21	0.13	153.97
1998–99	131.42	11.35	0.68	8.20	0.56	5.17	0.13	157.51
1999–00	134.57	11.49	0.69	8.55	0.60	5.24	0.13	161.26
2000–01	133.95	11.63	0.71	9.11	0.61	5.30	0.15	161.46
2001–02	136.72	12.00	0.75	8.87	0.62	5.26	0.14	164.36
2002–03	139.75	12.30	0.74	8.96	0.63	5.32	0.14	167.85
2003–04	145.90	12.65	0.78	9.14	0.63	5.36	0.14	174.60
2004–05	146.80	12.71	0.84	9.26	0.64	5.45	0.15	175.84
2005–06	144.77	12.95	0.91	9.79	0.66	5.60	0.15	174.81
2006–07	146.33	13.45	0.98	10.27	0.67	5.75	0.15	177.60
2007–08	147.56	14.18	1.05	11.17	0.69	5.95	0.15	180.75
2008–09	147.25	14.62	1.12	11.68	0.76	6.26	0.16	181.85
2009–10	148.52	15.41	1.15	11.59	0.75	6.41	0.16	184.00
2010–11	150.65	15.85	1.13	11.78	0.78	6.63	0.16	186.97
2011–12	152.35	16.32	1.10	11.92	0.82	6.96	0.16	189.62
2012–13	154.27	16.75	1.13	12.00	0.79	6.96	0.17	192.06
2013–14	156.81	17.19	1.15	12.12	0.77	7.07	0.18	195.29
2014–15	160.12	17.67	1.17	12.48	0.80	7.05	0.17	199.45
2015–16	164.46	18.21	1.19	12.87	0.87	7.07	0.18	204.83
2016–17	167.73	18.91	1.19	13.33	0.88	7.03	0.18	209.24
2017–18	168.69	19.66	1.19	13.86	0.89	7.23	0.18	211.71
2018–19	168.60	19.96	1.18	14.41	0.90	7.54	0.17	212.76

[f] Total bus pkt values are calculated as the sum of urban passenger transport (UPT) bus values and private bus usage. The UPT bus values refer solely to public route buses, where as private bus values include private bus usage such as by charter buses.

Source: BITRE estimates.

Table T 3.4a Method of travel to work, by state/territory—New South Wales

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	225 068	10 632	1 164 920	171 024	na	26 294	18 851	118 626	na
1991	211 372	8 407	1 197 033	168 743	na	17 269	16 970	123 248	86 035
1996	225 515	9 496	1 396 204	176 686	na	16 423	17 305	114 538	97 989
2001	249 096	8 223	1 487 981	168 862	54 094	14 157	17 730	114 927	112 728
2006	265 113	8 219	1 639 528	166 871	45 953	16 495	19 274	127 446	93 564
2011	317 806	7 730	1 807 359	157 359	38 584	19 629	23 358	128 340	113 376
2016	397 173	6 694	1 953 399	144 820	32 908	21 159	23 332	130 957	140 478

See end notes.
na: Not available.
Source: ABS (2017).

Table T 3.4b Method of travel to work, by state/territory—Victoria

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	134 654	5 873	986 891	132 471	na	12 132	24 022	79 580	na
1991	106 427	4 022	1 008 838	114 370	na	8 704	18 334	74 133	41 684
1996	103 778	4 989	1 157 773	114 478	na	8 414	17 190	63 668	46 918
2001	119 408	4 520	1 276 600	109 752	25 682	8 376	18 910	64 732	57 770
2006	143 412	4 555	1 394 017	111 030	22 806	10 838	25 180	80 539	63 067
2011	190 018	4 887	1 554 490	116 099	20 122	10 645	30 913	83 525	87 112
2016	238 249	4 882	1 691 496	110 502	16 720	9 878	33 963	87 794	101 999

See end notes.
na: Not available.
Source: ABS (2017).

Table T 3.4c Method of travel to work, by state/territory—Queensland

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	59 836	5 131	553 352	90 210	na	20 495	19 469	62 369	na
1991	55 908	3 787	624 144	93 935	na	16 819	22 964	62 908	16 016
1996	62 621	5 255	809 145	111 524	na	16 608	20 454	62 025	18 470
2001	68 732	4 020	906 073	112 409	30 538	15 601	20 252	60 529	24 510
2006	91 302	4 531	1 090 011	123 254	29 283	20 071	20 580	72 981	27 915
2011	113 051	4 335	1 248 540	125 270	25 604	19 101	21 576	75 561	39 650
2016	110 920	3 554	1 368 965	112 508	19 948	19 630	21 679	70 471	38 398

See end notes.
na: Not available.
Source: ABS (2017).

Table T 3.4d Method of travel to work, by state/territory—South Australia

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	41 952	1 954	322 855	44 187	na	9 376	10 415	28 744	na
1991	33 062	1 453	322 141	41 368	na	5 600	8 662	26 514	7 033
1996	27 567	1 840	363 074	39 302	na	3 740	5 962	21 015	6 539
2001	28 282	1 475	392 511	37 455	7 298	2 904	5 889	21 553	7 837
2006	36 140	1 458	429 822	38 720	6 609	4 324	7 942	24 862	8 298
2011	39 880	1 549	471 362	39 168	5 881	4 059	7 503	23 623	9 931
2016	41 548	1 374	492 357	34 003	4 513	3 440	7 455	20 697	10 337

See end notes.
na: not available.
Source: ABS (2017).

Table T 3.4e Method of travel to work, by state/territory—Western Australia

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	36 629	2 191	324 791	48 071	na	6 925	7 830	27 995	na
1991	33 026	1 206	361 689	46 036	na	6 022	9 102	26 828	7 113
1996	33 163	1 865	453 690	55 553	na	4 817	7 152	28 440	13 566
2001	34 294	1 521	498 685	51 929	11 019	4 247	8 279	28 307	17 701
2006	47 087	1 972	570 271	58 748	10 910	5 176	9 294	31 757	19 833
2011	65 538	2 218	662 949	63 485	10 485	6 508	11 758	35 995	37 158
2016	71 026	2 041	733 030	56 173	8 503	5 751	11 730	31 914	35 447

See end notes.
na: not available.
Source: ABS (2017).

Table T 3.4f Method of travel to work, by state/territory—Tasmania

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	8 622	693	101 797	17 505	na	1 108	1 244	12 265	na
1991	5 924	546	97 245	14 746	na	779	1 012	10 712	858
1996	5 342	551	109 633	14 441	na	838	964	9 466	811
2001	4 290	416	110 241	12 645	2 740	825	1 145	10 070	779
2006	5 156	495	125 485	14 506	2 572	1 089	1 478	11 693	805
2011	5 672	560	137 140	14 799	2 040	1 144	1 372	10 850	1 134
2016	5 362	576	141 396	12 541	1 695	1 298	1 656	10 443	1 057

See end notes.
na: not available.
Source: ABS (2017).

Table T 3.4g Method of travel to work, by state/territory—Northern Territory

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	2 429	537	32 209	7 021	na	1 391	2 185	6 934	na
1991	2 389	317	31 781	6 118	na	1 146	2 908	6 938	218
1996	2 887	477	40 865	7 445	na	1 040	2 636	9 369	381
2001	2 711	411	44 343	7 261	1 050	918	2 846	10 561	483
2006	3 082	328	46 702	7 114	795	978	2 579	10 347	369
2011	3 306	327	55 435	7 750	727	1 419	2 742	10 863	518
2016	4 966	279	61 874	6 947	557	1 392	2 552	8 683	1 458

See end notes.
na: Not available.
Source: ABS (2017).

Table T 3.4h Method of travel to work, by state/territory—Australian Capital Territory

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	9 614	540	77 313	11 524	na	1 310	2 185	4 084	na
1991	9 680	325	78 981	12 363	na	906	2 043	4 726	1 440
1996	8 638	540	89 613	12 713	na	986	2 760	5 373	1 728
2001	7 506	561	99 585	12 845	1 695	1 069	3 115	5 741	1 595
2006	10 374	411	107 608	13 011	1 471	1 766	3 757	7 399	1 362
2011	11 208	463	122 109	13 626	1 284	1 800	4 671	8 164	1 899
2016	12 462	315	130 776	12 320	979	1 974	5 366	9 305	2 179

See end notes.
na: not available.
Source: ABS (2017).

Table T 3.4i Method of travel to work by state/territory—total Australia

Census year	One method only								Public transport and other method [13]
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1986	518 804	27 551	3 564 128	522 013	na	79 031	86 201	340 597	na
1991	457 788	20 063	3 721 852	497 679	na	57 245	81 995	336 007	160 397
1996	469 511	25 013	4 419 997	532 142	na	52 866	74 423	313 894	186 402
2001	514 320	21 147	4 816 019	513 158	134 116	48 097	78 166	316 420	223 403
2006	601 666	21 969	5 403 443	533 252	120 399	60 741	90 085	367 020	215 213
2011	746 479	22 069	6 059 384	537 556	104 727	64 305	103 893	376 921	290 778
2016	881 706	19 715	6 573 293	489 814	85 823	64 522	107 733	370 264	331 353

See end notes.
na: not available.
Source: ABS (2017).

Table T 3.4j Total employed persons, by state/territory

Month and year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total Australia
	Number of employed persons								
Aug–1978	2 103 275	1 638 671	881 536	553 315	519 220	165 840	46 439	97 065	6 005 361
Aug–1979	2 127 576	1 648 181	906 419	548 795	530 175	172 893	49 050	95 431	6 078 522
Aug–1980	2 206 300	1 703 090	942 181	549 905	554 579	172 495	52 977	99 823	6 281 351
Aug–1981	2 240 139	1 721 083	978 860	557 789	562 632	171 648	59 007	102 586	6 393 744
Aug–1982	2 226 955	1 716 978	988 065	549 947	573 032	167 011	58 318	99 042	6 379 347
Aug–1983	2 140 823	1 675 133	980 324	537 887	574 460	165 011	59 607	107 909	6 241 155
Aug–1984	2 241 382	1 722 798	1 008 068	563 561	593 632	166 770	55 539	114 365	6 466 116
Aug–1985	2 268 672	1 786 186	1 058 720	573 902	622 116	177 398	68 277	120 267	6 675 538
Aug–1986	2 339 185	1 828 604	1 111 039	596 874	659 307	183 111	71 342	129 064	6 918 525
Aug–1987	2 378 261	1 923 534	1 129 645	600 375	677 124	180 621	72 143	130 554	7 092 257
Aug–1988	2 496 338	1 930 446	1 199 247	617 853	712 294	188 680	70 316	138 112	7 353 286
Aug–1989	2 587 933	2 049 087	1 277 534	650 613	739 458	195 418	73 799	141 430	7 715 273
Aug–1990	2 613 059	2 071 256	1 314 417	651 722	743 581	197 638	73 580	142 730	7 807 983
Aug–1991	2 588 182	1 963 645	1 296 483	627 912	728 773	194 338	75 287	146 082	7 620 703
Aug–1992	2 580 524	1 936 585	1 328 165	619 151	733 585	192 453	77 016	145 919	7 613 399
Aug–1993	2 533 395	1 905 585	1 348 495	625 896	757 926	188 579	76 723	152 804	7 589 403
Aug–1994	2 623 744	1 958 174	1 424 632	638 205	793 334	191 825	76 178	155 601	7 861 694
Aug–1995	2 741 951	2 039 022	1 476 576	645 893	827 227	194 744	80 834	159 673	8 165 919
Aug–1996	2 770 218	2 064 961	1 497 430	645 811	845 583	199 774	87 090	154 997	8 265 865
Aug–1997	2 746 353	2 048 142	1 516 979	646 638	857 044	191 353	86 873	156 925	8 250 306
Aug–1998	2 798 056	2 133 411	1 558 881	636 514	882 782	194 560	91 444	159 586	8 455 233
Aug–1999	2 867 641	2 130 637	1 598 695	660 013	891 933	193 581	96 889	164 235	8 603 624
Aug–2000	2 992 916	2 212 408	1 647 163	678 195	916 665	197 309	92 123	174 810	8 911 588
Aug–2001	3 007 640	2 240 409	1 663 074	671 810	925 757	193 121	98 703	171 382	8 971 895
Aug–2002	3 045 060	2 275 763	1 728 784	685 758	940 127	196 568	100 834	177 392	9 150 286
Aug–2003	3 085 546	2 313 653	1 784 696	710 553	952 760	206 558	96 697	176 487	9 326 951
Aug–2004	3 083 894	2 361 887	1 850 656	710 368	969 239	211 736	96 219	178 088	9 462 087
Aug–2005	3 182 309	2 446 009	1 962 368	735 556	1 039 910	219 092	98 165	186 926	9 870 336
Aug–2006	3 226 341	2 505 369	2 036 215	751 359	1 067 806	221 511	101 650	195 523	10 105 773
Aug–2007	3 295 228	2 582 325	2 110 542	764 741	1 121 022	225 791	109 860	196 888	10 406 398
Aug–2008	3 353 918	2 643 269	2 197 048	781 512	1 179 032	241 893	114 365	199 404	10 710 441
Aug–2009	3 366 323	2 657 816	2 193 718	772 810	1 168 714	229 905	119 023	198 948	10 707 257
Aug–2010	3 435 296	2 750 450	2 214 384	797 798	1 208 862	237 406	123 504	206 123	10 973 823
Aug–2011	3 476 971	2 787 293	2 258 842	801 170	1 241 133	234 676	120 175	206 955	11 127 215
Aug–2012	3 506 229	2 812 492	2 280 295	792 560	1 297 996	232 493	128 857	213 194	11 264 117
Aug–2013	3 567 203	2 859 282	2 284 921	787 616	1 293 647	228 093	130 100	210 548	11 361 410
Aug–2014	3 623 193	2 912 969	2 336 300	808 762	1 312 986	237 761	130 948	209 845	11 572 764
Aug–2015	3 708 785	2 960 394	2 333 998	800 058	1 313 471	240 728	135 640	209 558	11 702 631
Aug–2016	3 783 338	3 101 436	2 341 043	806 888	1 283 849	235 372	133 418	219 364	11 904 709
Aug–2017	3 861 081	3 201 415	2 441 028	825 219	1 312 290	245 800	135 689	222 810	12 245 332
Aug–2018	4 010 761	3 274 867	2 488 794	832 680	1 333 200	248 871	133 356	224 551	12 547 078
Aug–2019	4 137 103	3 392 340	2 523 129	847 871	1 352 252	247 369	128 299	230 995	12 859 357

Source: ABS (2019).

CHAPTER 4
Road

Figure T 4 Map of national road network

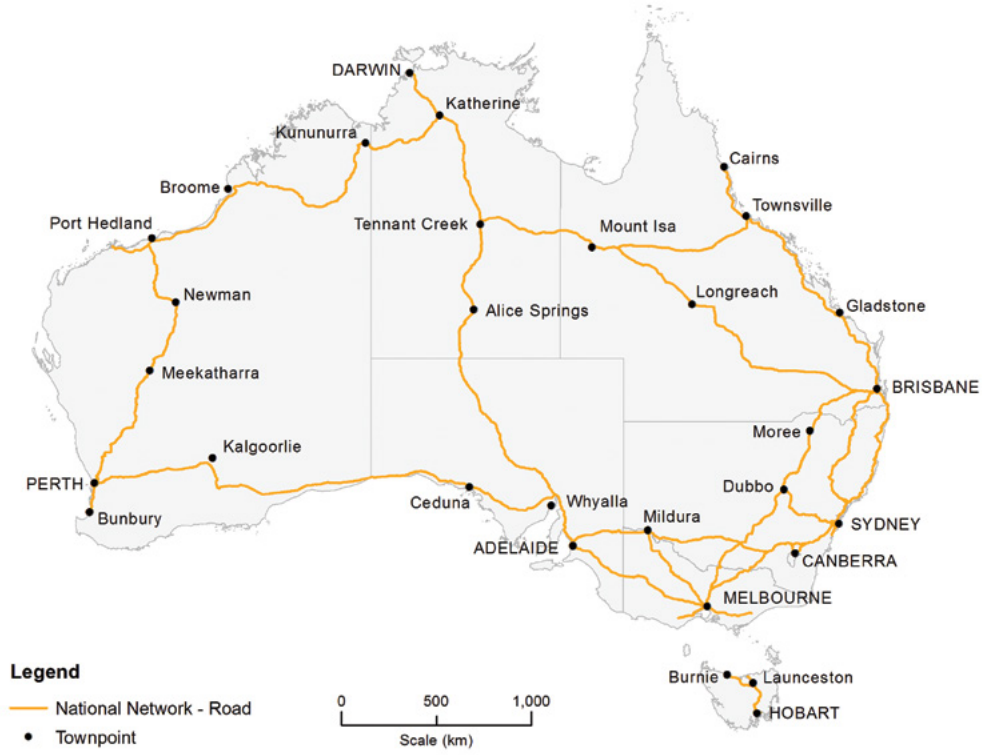


Table T 4.1 Intercapital road distances

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Darwin	Canberra
	km	*km*	*km*	*km*	*km*	*km*	*km*
Sydney	-	878	915	1 375	3 935	3 970	286
Melbourne	-	-	1 667	727	3 407	3 741	661
Brisbane	-	-	-	2 019	4 315	3 424	1 190
Adelaide	-	-	-	-	2 696	3 031	1 159
Perth	-	-	-	-	-	4 040	3 721
Darwin	-	-	-	-	-	-	3 936

Source: Google maps as at 1 November 2019

Table T 4.2 Total vehicle kilometres travelled, by vehicle type

Financial year	Passenger cars	Motor cycles	Buses	Light commercial vehicles	Rigid trucks	Articulated trucks	Total
	billion vehicle kilometres travelled						
1972–73	67.33	1.20	0.68	11.01	4.71	1.80	86.72
1973–74	71.99	1.30	0.69	12.02	4.87	1.90	92.76
1974–75	75.21	1.40	0.69	12.96	5.03	1.91	97.19
1975–76	78.40	1.64	0.69	13.12	5.25	2.03	101.12
1976–77	82.08	1.68	0.70	14.83	5.15	2.20	106.64
1977–78	85.02	1.73	0.71	16.11	5.10	2.22	110.90
1978–79	87.56	1.77	0.73	16.67	5.13	2.60	114.46
1979–80	88.06	1.90	0.77	16.79	5.65	2.80	115.97
1980–81	89.57	2.00	0.82	17.34	6.13	2.88	118.74
1981–82	94.14	2.18	0.86	17.86	6.97	3.06	125.07
1982–83	94.64	2.20	0.95	17.89	6.22	3.03	124.94
1983–84	99.13	2.25	1.05	19.32	6.17	3.41	131.32
1984–85	103.07	2.28	1.14	20.52	6.34	3.59	136.95
1985–86	106.47	2.10	1.22	21.23	6.22	3.67	140.91
1986–87	109.00	2.00	1.30	21.72	6.28	3.69	144.00
1987–88	114.57	1.92	1.39	22.77	6.69	3.95	151.29
1988–89	120.30	2.00	1.47	23.73	6.73	4.05	158.28
1989–90	124.00	1.80	1.56	23.90	6.84	4.13	162.23
1990–91	124.47	1.62	1.52	23.30	6.12	4.07	161.10
1991–92	127.18	1.61	1.48	24.17	5.91	4.10	164.46
1992–93	131.33	1.62	1.49	24.95	5.82	4.39	169.61
1993–94	134.91	1.59	1.55	25.76	6.02	4.53	174.35
1994–95	139.38	1.57	1.59	27.27	6.32	4.82	180.95
1995–96	141.59	1.52	1.64	28.28	6.65	5.02	184.71
1996–97	142.87	1.52	1.65	28.65	7.15	5.21	187.06
1997–98	144.51	1.46	1.69	29.94	7.24	5.40	190.24
1998–99	148.08	1.40	1.71	30.69	7.17	5.55	194.61
1999–00	151.17	1.42	1.76	31.33	7.29	5.70	198.67
2000–01	149.75	1.46	1.80	31.70	7.17	5.62	197.51
2001–02	153.63	1.55	1.82	32.94	7.44	5.81	203.19
2002–03	157.71	1.52	1.86	34.02	7.70	5.97	208.78
2003–04	165.35	1.60	1.89	35.15	7.85	6.16	218.00
2004–05	166.02	1.72	1.91	35.38	8.10	6.32	219.45
2005–06	162.91	1.88	1.96	36.28	8.39	6.46	217.89
2006–07	164.94	2.04	2.00	37.64	8.62	6.72	221.95
2007–08	165.73	2.20	2.06	39.26	8.86	6.91	225.02
2008–09	165.08	2.32	2.13	40.19	8.75	6.83	225.31
2009–10	166.15	2.39	2.20	41.85	8.99	6.95	228.53
2010–11	168.03	2.34	2.27	43.12	9.21	7.20	232.17
2011–12	169.58	2.28	2.36	44.48	9.45	7.45	235.61
2012–13	171.20	2.33	2.40	45.83	9.65	7.65	239.07
2013–14	173.71	2.38	2.44	47.09	9.84	7.84	243.30
2014–15	177.09	2.41	2.46	48.48	10.03	7.95	248.41
2015–16	181.47	2.45	2.48	50.11	10.30	8.03	254.85
2016–17	184.62	2.47	2.49	51.95	10.54	8.12	260.19
2017–18	185.41	2.46	2.51	54.00	10.81	8.22	263.41
2018–19	183.25	2.44	2.52	54.36	11.06	8.30	261.95

Note: 2018–19 data are preliminary/provisional
Source: BITRE estimates.

Table T 4.3 Total vehicle kilometres travelled, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
	billion vehicle kilometres travelled								
1972–73	30.24	23.65	12.17	8.00	8.43	2.50	0.61	1.12	86.72
1973–74	31.99	25.24	13.23	8.61	9.10	2.65	0.68	1.26	92.76
1974–75	33.18	26.38	14.11	9.09	9.65	2.74	0.67	1.37	97.19
1975–76	34.00	27.48	14.95	9.49	10.17	2.82	0.75	1.47	101.12
1976–77	35.60	28.96	15.84	9.98	10.91	2.95	0.84	1.57	106.64
1977–78	36.77	30.05	16.70	10.29	11.49	3.07	0.89	1.64	110.90
1978–79	38.12	30.76	17.56	10.40	11.84	3.15	0.94	1.70	114.46
1979–80	38.83	30.83	18.18	10.28	11.97	3.16	0.99	1.72	115.97
1980–81	39.90	31.30	19.12	10.27	12.16	3.19	1.04	1.76	118.74
1981–82	41.72	32.99	20.60	10.68	12.79	3.32	1.12	1.86	125.07
1982–83	41.18	33.15	20.85	10.69	12.73	3.33	1.13	1.89	124.94
1983–84	43.23	34.73	21.91	11.28	13.45	3.52	1.21	1.99	131.32
1984–85	45.11	36.22	22.79	11.80	13.94	3.69	1.28	2.10	136.95
1985–86	46.03	37.47	23.59	12.14	14.35	3.79	1.34	2.20	140.91
1986–87	46.70	38.63	24.20	12.36	14.66	3.82	1.36	2.27	144.00
1987–88	48.65	40.92	25.65	12.87	15.43	3.97	1.40	2.41	151.29
1988–89	50.42	42.99	27.29	13.32	16.16	4.12	1.42	2.54	158.28
1989–90	51.48	44.02	28.22	13.51	16.63	4.28	1.45	2.64	162.23
1990–91	50.93	43.54	28.49	13.30	16.48	4.26	1.43	2.67	161.10
1991–92	51.80	44.20	29.73	13.43	16.74	4.34	1.46	2.76	164.46
1992–93	53.38	45.13	31.30	13.69	17.25	4.49	1.50	2.87	169.61
1993–94	54.82	46.06	32.55	13.77	18.07	4.60	1.54	2.95	174.35
1994–95	56.71	47.38	34.31	13.99	19.17	4.73	1.62	3.04	180.95
1995–96	57.43	48.45	35.52	14.06	19.69	4.79	1.70	3.08	184.71
1996–97	57.76	49.38	36.10	14.19	20.00	4.81	1.73	3.09	187.06
1997–98	58.85	49.88	37.03	14.43	20.41	4.77	1.76	3.11	190.24
1998–99	60.24	51.06	37.86	14.84	20.89	4.76	1.78	3.17	194.61
1999–00	61.72	51.70	38.99	15.26	21.19	4.77	1.80	3.23	198.67
2000–01	61.50	51.06	39.15	15.20	21.00	4.67	1.75	3.18	197.51
2001–02	62.85	52.86	40.64	15.50	21.52	4.79	1.78	3.26	203.19
2002–03	64.01	54.53	41.98	16.01	22.10	4.97	1.82	3.36	208.78
2003–04	66.72	56.67	44.62	16.26	23.14	5.20	1.87	3.51	218.00
2004–05	67.15	56.82	45.32	16.07	23.54	5.16	1.86	3.52	219.45
2005–06	66.45	56.10	45.59	15.86	23.42	5.12	1.86	3.49	217.89
2006–07	67.32	56.72	47.03	16.11	24.06	5.25	1.92	3.55	221.95
2007–08	67.93	57.64	48.23	15.92	24.46	5.28	1.99	3.58	225.02
2008–09	68.02	57.32	48.09	15.89	25.12	5.25	2.03	3.59	225.31
2009–10	68.96	58.52	48.80	16.11	25.23	5.24	2.04	3.62	228.53
2010–11	70.36	59.77	49.19	16.14	25.71	5.26	2.06	3.68	232.17
2011–12	71.11	60.86	50.03	16.15	26.35	5.29	2.07	3.75	235.61
2012–13	72.11	61.68	50.95	16.34	26.77	5.29	2.10	3.82	239.07
2013–14	73.24	62.95	51.71	16.70	27.37	5.33	2.13	3.87	243.30
2014–15	74.85	64.33	52.82	16.99	27.95	5.39	2.15	3.94	248.41
2015–16	76.87	66.02	54.27	17.35	28.68	5.46	2.17	4.03	254.85
2016–17	78.69	67.67	55.39	17.61	28.97	5.51	2.21	4.12	260.19
2017–18	79.64	68.77	56.09	17.77	29.07	5.63	2.26	4.18	263.41
2018–19	79.16	68.99	55.49	17.62	28.57	5.66	2.27	4.20	261.95

Note: 2018-19 data are preliminary/provisional
NSW includes Jervis Bay.
Source: BITRE estimates.

Table T 4.4 Total vehicle kilometres travelled, by capital city

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Total
	billion vehicle kilometres travelled								
1972–73	16.15	13.60	4.98	5.00	5.13	0.78	0.26	1.11	47.02
1973–74	17.10	14.51	5.43	5.43	5.58	0.84	0.29	1.25	50.43
1974–75	17.76	15.36	5.76	5.76	5.95	0.89	0.25	1.36	53.10
1975–76	18.23	16.21	6.14	6.04	6.28	0.94	0.31	1.46	55.61
1976–77	19.07	17.23	6.51	6.35	6.72	1.00	0.34	1.56	58.78
1977–78	19.68	18.06	6.88	6.53	7.07	1.08	0.35	1.63	61.29
1978–79	20.36	18.63	7.23	6.57	7.28	1.12	0.38	1.69	63.24
1979–80	20.69	18.78	7.41	6.44	7.37	1.14	0.40	1.71	63.95
1980–81	21.15	19.18	7.72	6.39	7.50	1.17	0.43	1.75	65.27
1981–82	22.14	20.33	8.29	6.63	7.91	1.22	0.47	1.85	68.84
1982–83	21.94	20.40	8.44	6.66	7.94	1.23	0.47	1.88	68.97
1983–84	23.09	21.28	8.91	7.03	8.42	1.30	0.51	1.98	72.54
1984–85	24.19	22.12	9.31	7.37	8.74	1.37	0.55	2.09	75.75
1985–86	24.85	23.10	9.82	7.59	9.03	1.43	0.59	2.19	78.60
1986–87	25.39	23.94	10.12	7.74	9.24	1.44	0.61	2.26	80.75
1987–88	26.54	25.41	10.76	8.07	9.75	1.49	0.63	2.40	85.05
1988–89	27.50	26.73	11.43	8.38	10.27	1.54	0.64	2.53	89.03
1989–90	28.05	27.38	11.77	8.52	10.57	1.60	0.65	2.64	91.18
1990–91	27.76	27.11	11.88	8.41	10.44	1.59	0.65	2.66	90.52
1991–92	28.25	27.59	12.38	8.51	10.63	1.63	0.67	2.75	92.39
1992–93	29.10	28.23	12.99	8.67	11.03	1.70	0.69	2.86	95.27
1993–94	29.89	28.88	13.50	8.71	11.66	1.75	0.71	2.94	98.05
1994–95	30.95	29.81	14.23	8.85	12.45	1.79	0.76	3.03	101.88
1995–96	31.45	30.34	14.77	8.87	12.83	1.82	0.79	3.08	103.95
1996–97	31.69	30.68	15.05	8.94	13.03	1.82	0.82	3.09	105.11
1997–98	32.30	31.31	15.52	9.08	13.25	1.79	0.84	3.11	107.19
1998–99	33.12	32.03	15.83	9.34	13.55	1.78	0.85	3.17	109.69
1999–00	33.97	32.70	16.31	9.61	13.75	1.79	0.86	3.23	112.21
2000–01	33.89	32.80	16.38	9.57	13.62	1.75	0.84	3.18	112.03
2001–02	34.65	33.53	16.99	9.74	13.97	1.79	0.85	3.25	114.77
2002–03	35.30	34.21	17.54	10.05	14.37	1.85	0.87	3.36	117.55
2003–04	36.88	35.35	18.66	10.18	15.08	1.94	0.89	3.50	122.49
2004–05	37.12	35.65	19.05	10.03	15.35	1.92	0.89	3.51	123.52
2005–06	36.64	35.50	19.19	9.90	15.22	1.90	0.90	3.49	122.75
2006–07	37.04	35.77	19.85	10.01	15.64	1.94	0.93	3.54	124.72
2007–08	37.44	36.38	20.49	9.83	15.83	1.95	0.97	3.57	126.47
2008–09	37.48	36.11	20.52	9.81	16.26	1.94	0.99	3.59	126.70
2009–10	38.00	36.81	20.91	9.94	16.30	1.93	1.00	3.62	128.50
2010–11	38.78	37.67	21.23	9.93	16.56	1.93	1.02	3.67	130.80
2011–12	39.16	38.38	21.68	9.91	16.96	1.94	1.03	3.75	132.81
2012–13	39.71	38.98	22.15	10.04	17.20	1.94	1.06	3.81	134.89
2013–14	40.25	39.81	22.53	10.27	17.61	1.96	1.08	3.87	137.38
2014–15	41.07	40.74	23.06	10.46	18.06	1.99	1.10	3.94	140.41
2015–16	42.16	41.84	23.77	10.69	18.68	2.03	1.12	4.03	144.30
2016–17	43.19	42.92	24.32	10.87	18.97	2.05	1.16	4.12	147.61
2017–18	43.71	43.63	24.61	10.97	19.04	2.11	1.20	4.17	149.45
2018–19	43.45	43.76	24.38	10.87	18.71	2.13	1.21	4.20	148.71

Note: 2018-19 data are preliminary/provisional
Source: BITRE estimates.

Table T 4.5 Total road freight, by vehicle type

Financial year	Light commercial vehicles	Rigid trucks	Articulated trucks	Total road freight
		billion tonne–kilometres		
1974–75	1.0	10.9	19.5	31.4
1975–76	1.0	11.4	21.4	33.9
1976–77	1.2	11.8	23.9	36.8
1977–78	1.2	12.4	24.4	38.0
1978–79	1.3	13.3	29.1	43.8
1979–80	1.4	14.2	31.7	47.2
1980–81	1.5	14.8	35.1	51.4
1981–82	1.5	15.9	37.6	55.1
1982–83	1.5	15.2	38.3	55.1
1983–84	1.7	16.2	44.4	62.3
1984–85	1.8	17.7	48.3	67.9
1985–86	2.0	18.1	51.5	71.7
1986–87	2.2	18.9	52.5	73.7
1987–88	2.5	20.5	57.8	80.7
1988–89	2.6	20.9	60.7	84.3
1989–90	2.7	22.0	63.2	87.9
1990–91	2.7	20.2	62.5	85.3
1991–92	2.7	19.5	63.0	85.2
1992–93	2.8	19.2	68.0	90.0
1993–94	2.9	19.8	71.4	94.1
1994–95	3.1	20.9	77.4	101.4
1995–96	3.2	22.1	82.1	107.4
1996–97	3.2	23.8	86.4	113.4
1997–98	3.4	24.3	91.7	119.3
1998–99	3.5	24.3	97.2	125.0
1999–00	3.6	25.2	103.9	132.6
2000–01	3.5	25.1	106.3	134.9
2001–02	3.7	26.2	112.6	142.5
2002–03	3.9	27.3	117.7	148.9
2003–04	4.1	28.1	124.0	156.2
2004–05	4.1	29.2	129.1	162.4
2005–06	4.2	30.5	134.0	168.7
2006–07	4.2	31.6	141.4	177.1
2007–08	4.2	32.6	146.4	183.1
2008–09	4.2	32.3	145.4	181.9
2009–10	4.3	33.2	147.8	185.4
2010–11	4.4	33.9	152.9	191.2
2011–12	4.6	34.6	157.3	196.5
2012–13	4.7	35.2	160.7	200.6
2013–14	4.7	35.7	164.8	205.2
2014–15	4.8	36.3	166.9	208.0
2015–16	4.9	37.3	169.8	212.0
2016–17	5.1	38.1	172.6	215.9
2017–18	5.4	39.0	175.6	220.1
2018–19	5.5	40.0	179.1	224.6

See end notes.
Source: BITRE estimates.

Table T 4.6 Private vehicle ownership and operating cost indices

June reference month	Australia motor vehicle consumer price	Private motoring	Motor vehicle retail price	Automotive fuel	Motor vehicle repair and servicing	Motor vehicle parts and accessories	Other motoring services	Urban transport fares
	base of each index: 2011–12 = 100.0							
1976		18.5	34.5	10.3				11.1
1977		20.3	38.2	10.7				10.8
1978		21.8	41.7	11.8				11.7
1979		24.4	43.0	16.2				12.3
1980		27.6	45.6	21.6				14.3
1981		30.1	48.4	25.1	29.3	43.4	19.4	16.6
1982		32.6	53.2	24.8	33.6	44.3	23.3	19.1
1983	43.0	35.9	58.5	27.7	36.5	47.3	24.7	21.2
1984	44.8	39.1	61.2	32.1	38.8	51.7	26.6	24.1
1985	47.0	42.5	66.6	35.9	41.0	54.4	28.6	25.4
1986	53.9	44.3	75.5	32.3	45.3	56.6	30.0	27.2
1987	61.8	50.7	89.1	36.3	50.1	60.3	33.1	29.9
1988	67.1	53.4	97.9	35.5	53.2	65.9	34.2	32.3
1989	70.6	56.1	103.8	37.3	55.6	68.6	35.4	35.3
1990	82.5	60.5	107.7	42.2	60.0	71.2	36.3	38.5
1991	85.2	62.1	108.7	42.9	62.9	71.4	38.8	44.1
1992	88.1	63.9	111.7	44.8	63.6	71.1	41.9	46.6
1993	92.8	65.7	118.8	45.3	64.3	71.0	45.7	49.3
1994	96.2	67.5	122.1	46.0	65.3	72.6	46.9	50.9
1995	99.2	69.6	128.1	46.8	66.1	74.2	48.1	52.4
1996	98.4	72.6	130.0	49.1	68.6	73.5	50.0	54.4
1997	97.0	72.2	120.6	49.4	69.1	74.4	52.1	57.8
1998	98.5	71.5	116.5	47.8	69.2	74.0	53.9	58.6
1999	96.6	71.4	112.2	47.2	71.3	74.9	56.7	59.8
2000	100.1	76.8	111.7	57.5	69.4	74.1	59.1	62.7
2001	102.3	80.9	112.8	63.9	74.3	75.4	61.3	69.5
2002	106.5	80.6	113.9	60.7	76.5	77.7	63.6	71.7
2003	108.0	80.6	112.2	59.9	78.9	79.0	65.8	73.1
2004	105.5	83.2	108.9	66.9	81.1	79.2	69.9	76.8
2005	103.8	86.1	106.0	73.9	84.5	80.9	72.0	78.1
2006	104.2	92.9	105.0	92.2	86.3	83.8	73.5	80.6
2007	104.7	92.9	106.5	88.3	88.6	86.8	77.1	83.6
2008	106.1	99.4	105.2	104.5	91.6	91.0	81.1	87.7
2009	105.0	92.8	104.2	83.1	95.4	99.1	84.3	92.2
2010	103.8	95.8	103.4	89.4	97.5	99.5	90.8	94.5
2011	99.3	99.2	101.9	99.4	95.8	99.5	96.5	97.2
2012	99.9	101.2	100.3	101.9	100.7	100.0	102.7	102.3
2013	98.9	100.4	96.9	98.5	105.3	100.4	107.4	106.8
2014	96.7	103.1	96.2	106.1	103.1	102.3	111.2	109.5
2015	97.7	100.7	94.9	94.9	105.2	106.1	118.7	105.1
2016	93.7	97.7	95.0	83.9	107.4	106.2	121.1	105.2
2017	95.1	99.9	93.8	89.7	108.4	107.7	123.5	106.7
2018	na	105.2	91.7	104.3	110.2	110.1	128.0	109.7
2019	na	107.0	94.8	103.8	113.3	111.7	131.5	111.7

Note: Data are not readily available for missing years.
Source: ABS (2019f), ABS (2019p).

Table T 4.7 Stock of registered motor vehicles, by vehicle type

	Passenger cars	Motor cycles	LCVs	Rigid trucks	Articulated trucks	Other vehicles	Buses	All vehicles
				thousands				
1982	6 233.4	366.9	1 003.0	479.0	47.2	42.0	46.2	8 217.7
1983								
1984								
1985	6 734.2	361.6	1 140.5	543.7	50.2	49.4	80.1	8 959.7
1986								
1987								
1988	7 158.8	304.0	1 183.5	576.3	48.9	53.4	93.2	9 418.0
1989								
1990								
1991	7 860.7	284.1	1 479.2	333.2	51.7	47.0	42.3	10 098.2
1992								
1993	8 279.4	288.8	1 453.8	336.5	52.5	46.6	46.6	10 504.2
1994								
1995	8 628.8	296.6	1 527.2	337.4	58.3	47.0	52.2	10 947.5
1996	8 989.1	303.9	1 601.6	341.0	58.4	48.3	58.8	11 401.1
1997	9 206.2	313.1	1 632.2	342.4	59.3	50.0	61.1	11 664.4
1998	9 526.7	328.8	1 686.4	347.2	62.3	51.3	64.1	12 066.9
1999	9 686.2	333.8	1 721.2	346.8	63.3	51.3	65.9	12 268.5
2000								
2001	9 835.9	350.9	1 769.6	338.4	62.6	51.8	67.6	12 476.8
2002	10 101.4	371.0	1 820.0	341.5	63.9	54.0	70.2	12 822.0
2003	10 365.9	377.3	1 879.8	348.7	64.3	56.9	70.1	13 163.0
2004	10 629.4	396.3	1 952.5	357.6	66.3	59.6	71.3	13 533.1
2005	10 896.4	421.9	2 030.3	368.5	69.7	60.7	72.6	13 920.1
2006	11 188.9	463.1	2 114.3	383.5	71.7	61.8	75.4	14 358.7
2007	11 466.6	512.4	2 190.1	394.5	74.5	64.5	77.6	14 780.2
2008	11 803.5	567.6	2 288.2	410.9	79.1	66.6	80.6	15 296.5
2009	12 023.1	624.1	2 371.1	421.7	81.2	68.8	84.4	15 674.4
2010	12 269.3	660.1	2 460.6	431.3	82.4	71.0	86.4	16 061.1
2011	12 474.0	678.8	2 530.6	437.8	86.0	73.3	87.9	16 368.4
2012	12 714.2	709.3	2 617.8	446.4	88.0	75.3	90.6	16 741.6
2013	13 000.0	744.7	2 717.7	457.1	90.9	77.1	93.0	17 180.6
2014	13 297.3	780.2	2 824.1	465.1	93.9	78.9	94.1	17 633.5
2015	13 549.4	807.2	2 907.0	472.3	95.0	81.6	95.1	18 007.8
2016	13 815.1	829.0	2 985.6	480.2	96.2	84.5	96.6	18 387.1
2017	14 078.6	849.3	3 079.6	491.5	98.1	87.1	96.9	18 781.2
2018	14 330.4	860.7	3 187.1	505.0	100.7	90.8	98.6	19 173.3
2019	14 504.1	870.1	3 313.4	520.7	103.0	94.4	99.4	19 505.2

Note: Data are not readily available for missing years.
Source: ABS (2019o).

Table T 4.8 Stock of registered motor vehicles, by state/territory

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
					thousands				
1982	2 708.1	2 127.2	1 440.0	744.0	783.4	244.3	60.9	109.7	8 217.7
1983									
1984									
1985	2 900.5	2 376.3	1 479.4	848.7	887.6	268.7	71.1	127.6	8 959.7
1986									
1987									
1988	2 993.6	2 556.0	1 567.2	869.1	947.0	284.3	60.7	140.2	9 418.0
1989									
1990									
1991	3 106.9	2 756.4	1 694.1	922.7	1 072.0	300.4	84.3	161.5	10 098.2
1992									
1993	3 172.4	2 864.7	1 847.2	932.8	1 114.5	311.9	84.2	176.5	10 504.2
1994									
1995	3 332.5	2 869.9	2 012.9	962.8	1 175.5	319.9	90.4	183.8	10 947.5
1996	3 448.9	3 050.2	2 082.0	984.5	1 225.0	325.5	96.2	188.8	11 401.1
1997	3 530.1	3 119.0	2 132.2	992.2	1 269.6	325.0	99.1	197.2	11 664.4
1998	3 682.6	3 177.4	2 228.8	1 031.1	1 327.2	322.7	102.2	194.8	12 066.9
1999	3 679.3	3 266.5	2 315.6	1 032.5	1 344.8	329.6	103.2	197.0	12 268.5
2000									
2001	3 745.5	3 317.7	2 354.4	1 050.6	1 371.3	331.1	102.8	203.4	12 476.8
2002	3 847.1	3 413.7	2 445.5	1 063.1	1 405.7	335.1	103.8	208.0	12 822.0
2003	3 944.9	3 494.3	2 552.1	1 077.2	1 438.4	338.5	104.3	213.4	13 163.0
2004	4 063.6	3 565.2	2 656.0	1 095.9	1 480.2	350.4	106.0	215.7	13 533.1
2005	4 170.4	3 649.6	2 767.3	1 111.7	1 529.6	362.1	109.8	219.6	13 920.1
2006	4 268.6	3 740.7	2 897.9	1 138.0	1 600.6	374.8	114.0	224.1	14 358.7
2007	4 361.2	3 818.1	3 033.4	1 157.0	1 676.5	381.2	118.2	234.6	14 780.2
2008	4 520.0	3 921.6	3 173.4	1 178.9	1 746.6	391.3	123.0	241.8	15 296.5
2009	4 567.4	4 010.3	3 283.2	1 208.9	1 828.3	400.5	128.8	247.0	15 674.4
2010	4 681.5	4 112.9	3 358.2	1 239.7	1 870.1	410.2	134.7	253.8	16 061.1
2011	4 778.4	4 198.4	3 401.9	1 261.9	1 912.7	419.0	137.1	258.9	16 368.4
2012	4 870.0	4 286.3	3 492.3	1 275.0	1 977.8	432.0	141.1	267.2	16 741.6
2013	4 984.6	4 383.6	3 606.1	1 298.4	2 048.4	437.0	148.6	273.9	17 180.6
2014	5 102.4	4 483.1	3 705.4	1 326.2	2 142.3	442.6	152.2	279.4	17 633.5
2015	5 247.2	4 567.3	3 771.3	1 347.5	2 185.4	450.4	155.0	283.6	18 007.8
2016	5 374.4	4 681.3	3 854.2	1 364.7	2 208.8	457.6	157.7	288.3	18 387.1
2017	5 509.2	4 798.1	3 948.2	1 386.0	2 219.3	469.5	155.4	295.6	18 781.2
2018	5 618.4	4 923.0	4 045.3	1 409.0	2 231.6	480.9	162.5	302.6	19 173.3
2019	5 702.2	5 030.9	4 134.4	1 428.9	2 245.0	493.4	161.6	308.9	19 505.2

Note: Data are not readily available for missing years.
Source: ABS (2019o).

Table T 4.9 New motor vehicles sales, excluding motor cycles, by vehicle type

Financial year	Passenger cars	Sports utility vehicles	Other vehicles	Total vehicles excluding motor cycles
		thousands		
1997–98	570.1	87.7	119.1	776.9
1998–99	575.7	101.8	128.3	805.8
1999–00	509.4	97.6	135.6	742.6
2000–01	571.0	114.8	122.9	808.7
2001–02	537.6	129.1	137.9	804.6
2002–03	560.2	144.0	156.4	860.5
2003–04	594.4	160.9	184.8	940.1
2004–05	604.0	182.0	195.8	981.8
2005–06	599.4	173.3	198.7	971.4
2006–07	624.1	180.4	199.4	1 003.9
2007–08	631.8	210.9	225.5	1 068.3
2008–09	542.8	176.1	205.9	924.7
2009–10	582.1	216.2	215.0	1 013.3
2010–11	566.3	230.6	203.7	1 000.6
2011–12	568.0	282.5	209.6	1 060.1
2012–13	572.0	323.1	242.8	1 137.9
2013–14	554.3	338.4	229.8	1 122.5
2014–15	523.3	376.6	231.8	1 131.7
2015–16	502.1	431.2	241.8	1 175.1
2016–17	469.4	452.1	258.0	1 179.5
2017–18	424.1	490.7	280.3	1 195.1
2018–19	344.7	483.3	274.1	1 102.1

Source: ABS (2019r), FCAI (2019).

Table T 4.10 New motor vehicles sales excluding motor cycles, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
					thousands				
1997–98	273.3	193.1	141.0	51.0	79.1	15.5	8.9	15.0	776.9
1998–99	287.3	207.7	145.9	50.7	76.9	14.5	8.6	14.2	805.8
1999–00	268.2	195.5	133.3	44.3	64.7	13.9	7.9	14.8	742.6
2000–01	284.8	224.4	140.3	49.6	72.8	14.6	7.5	14.6	808.7
2001–02	280.3	221.2	144.4	50.8	71.9	14.8	7.5	13.7	804.6
2002–03	290.2	234.8	164.7	56.6	76.7	15.4	7.7	14.5	860.5
2003–04	308.3	246.7	193.2	63.1	86.7	18.8	8.4	14.9	940.1
2004–05	308.8	256.3	212.7	64.1	95.2	20.6	9.3	14.7	981.8
2005–06	297.0	250.2	212.8	62.4	105.4	19.6	9.3	14.7	971.4
2006–07	305.9	252.5	223.4	60.8	117.2	18.8	9.7	15.6	1 003.9
2007–08	323.7	276.9	233.7	64.6	122.5	20.0	10.5	16.5	1 068.3
2008–09	280.6	243.4	194.1	59.4	105.3	17.7	9.4	14.9	924.7
2009–10	309.2	272.3	211.0	66.1	110.3	18.8	9.9	15.7	1 013.3
2010–11	310.6	269.3	202.7	62.8	111.6	17.9	10.0	15.7	1 000.6
2011–12	329.1	280.2	224.2	65.3	117.6	16.1	10.9	16.6	1 060.1
2012–13	348.0	302.3	238.3	70.3	130.9	18.7	11.4	18.0	1 137.9
2013–14	353.0	304.5	227.4	70.1	119.8	18.9	11.3	17.5	1 122.5
2014–15	366.8	308.7	229.7	69.3	110.4	18.3	11.1	17.5	1 131.7
2015–16	394.7	321.2	236.4	70.4	103.9	19.4	10.5	18.6	1 175.1
2016–17	397.3	333.3	231.2	71.9	96.5	19.9	10.7	18.7	1 179.5
2017–18	392.3	344.8	236.4	72.1	99.7	20.2	10.8	18.8	1 195.1

Source: ABS (2019r), FCAI (2019).

Table T 4.11a Licence holders, by age and gender—New South Wales

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	140 367	199 350	216 933	471 747	475 479	438 574	333 489	170 423	58 377	2 504 739
30 June 2015	141 662	201 665	221 972	481 869	481 264	444 563	343 801	180 209	60 713	2 557 718
30 June 2016	143 365	201 936	226 743	491 897	485 894	447 972	354 081	189 642	64 035	2 605 565
30 June 2017	144 158	203 730	231 063	504 518	489 871	450 863	360 249	205 145	67 670	2 657 267
30 June 2018	146 703	204 585	233 564	515 560	493 287	452 663	368 437	217 945	71 186	2 703 930
Male										
30 June 2014	144 666	202 942	217 932	476 857	483 801	462 110	368 163	202 195	78 991	2 637 657
30 June 2015	145 142	205 116	223 392	488 552	489 526	467 314	376 425	211 174	81 355	2 687 996
30 June 2016	146 098	206 049	228 090	500 233	492 494	469 627	384 945	220 383	84 385	2 732 304
30 June 2017	147 304	207 878	233 721	513 477	496 518	471 420	388 287	235 740	87 983	2 782 328
30 June 2018	149 144	209 002	237 852	524 602	500 347	471 429	393 167	248 106	91 469	2 825 118
Persons										
30 June 2014	285 033	402 292	434 865	948 604	959 280	900 684	701 652	372 618	137 368	5 142 396
30 June 2015	286 804	406 781	445 364	970 421	970 801	911 892	720 235	391 388	142 069	5 245 755
30 June 2016	289 463	407 985	454 833	992 130	978 408	917 622	739 051	410 034	148 421	5 337 947
30 June 2017	291 462	411 608	464 784	1 017 995	986 418	922 331	748 559	440 900	155 654	5 439 711
30 June 2018	295 847	413 587	471 416	1 040 162	993 656	924 156	761 634	466 067	162 660	5 529 185

See end notes.

Source: BITRE estimates based on data provided by NSW Roads and Maritime Services data (2019).

Table T 4.11b Licence holders, by age and gender—Victoria

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	105 605	174 835	201 073	406 378	403 234	354 991	269 879	138 019	59 905	2 113 919
30 June 2015	105 444	175 998	204 668	416 987	407 574	360 248	278 850	145 692	57 662	2 153 123
30 June 2016	106 409	176 253	208 208	429 888	411 209	365 510	288 206	153 949	60 292	2 199 924
30 June 2017	106 698	177 817	210 174	442 985	415 074	369 933	293 085	167 705	64 190	2 247 661
30 June 2018	110 685	178 003	213 601	457 716	418 024	375 126	299 887	179 866	67 164	2 300 072
Male										
30 June 2014	112 017	181 058	209 702	418 036	402 445	360 467	281 094	158 908	73 038	2 196 765
30 June 2015	111 681	182 835	212 747	428 943	405 740	365 539	287 633	165 404	70 952	2 231 474
30 June 2016	111 752	184 757	214 877	441 997	410 495	369 749	295 237	172 191	73 464	2 274 519
30 June 2017	110 497	186 760	216 278	454 953	415 174	374 355	298 172	184 444	77 224	2 317 857
30 June 2018	112 020	188 154	219 936	468 452	419 336	379 272	303 778	194 644	79 943	2 365 535
Persons										
30 June 2014	217 622	355 894	410 775	824 416	805 679	715 458	550 973	296 927	132 943	4 310 687
30 June 2015	217 127	358 834	417 418	845 931	813 317	725 789	566 483	311 096	128 614	4 384 609
30 June 2016	218 166	361 029	423 110	871 888	821 708	735 261	583 444	326 140	133 756	4 474 502
30 June 2017	217 207	364 588	426 492	897 943	830 253	744 291	591 258	352 149	141 414	4 565 595
30 June 2018	222 725	366 174	433 636	926 179	837 363	754 403	603 666	374 510	147 108	4 665 764

See end notes.

Note: Persons total includes drivers of unspecified gender.

Source: BITRE estimates based on VicRoads data (2019).

Table T 4.11c Licence holders, by age and gender—Queensland

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	95 689	138 142	146 726	301 129	314 733	286 496	221 341	109 817	35 750	1 649 823
30 June 2015	96 771	139 252	147 566	305 423	317 081	290 502	228 135	117 610	36 010	1 678 350
30 June 2016	97 836	140 690	150 590	313,026	321 161	294 677	235 607	125 489	38 133	1 717 299
30 June 2017	99 089	141 822	154 123	320 237	324 548	298 939	239 644	137 096	41 275	1 756 773
30 June 2018	103 497	143 387	156 619	326 865	327 863	302 313	245 796	146 916	44 124	1 797 380
Male										
30 June 2014	96 958	141 315	153 301	309 645	322 040	295 354	238 600	127 248	49 987	1 734 448
30 June 2015	97 176	142 628	152 981	312 395	323 433	298 649	243 220	134 572	48 767	1 753 821
30 June 2016	98 832	144 309	155 570	318 931	326 575	301 972	249 033	141 965	51 310	1 788 497
30 June 2017	100 398	146 206	158 194	325 190	329 186	305 666	251 404	153 264	54 555	1 824 063
30 June 2018	105 133	147 522	160 839	331 231	330 664	309 335	255 419	162 698	57 422	1 860 263
Persons										
30 June 2014	192 647	279 457	300 027	610 774	636 773	581 850	459 941	237 065	85 737	3 384 271
30 June 2015	193 947	281 880	300 547	617 818	640 514	589 151	471 355	252 182	84 777	3 432 171
30 June 2016	196 668	284 999	306 160	631 957	647 736	596 649	484 640	267 454	89 443	3 505 706
30 June 2017	199 487	288 028	312 317	645 427	653 734	604 605	491 048	290 360	95 830	3 580 836
30 June 2018	208 630	290 909	317 458	658 096	658 527	611 648	501 215	309 614	101 546	3 657 643

See end notes.

Source: BITRE estimates based on Department of Transport and Main Roads (QLD) data (2019).

Table T 4.11d Licence holders, by age and gender—South Australia

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	31 678	46 325	48 299	96 716	106 450	105 093	86 145	43 074	16 024	579 804
30 June 2015	31 371	46 291	48 317	97 818	105 528	105 761	88 307	46 172	16 640	586 205
30 June 2016	31 549	46 375	48 661	99 912	104 744	106 189	90 633	53 095	18 525	594 494
30 June 2017	31 148	46 240	48 904	101 757	104 362	106 258	91 336	53 553	18 079	601 637
30 June 2018	31 349	46 227	49 162	103 653	103 787	106 447	92 746	57 113	18 990	609 474
Male										
30 June 2014	33 024	47 960	50 782	101 102	110 017	109 529	91 649	50 632	22 055	616 750
30 June 2015	32 110	48 110	50 344	101 727	108 989	109 747	93 284	52 953	22 639	619 903
30 June 2016	32 284	48 076	50 361	102 775	107 821	109 985	94 959	58 629	24 429	624 838
30 June 2017	31 867	48 385	50 659	104 167	107 194	109 884	94 955	59 126	24 003	630 240
30 June 2018	32 129	48 498	51 190	105 486	106 255	109 658	95 992	62 248	24 787	636 243
Persons										
30 June 2014	64 702	94 285	99 081	197 818	216 467	214 622	177 794	93 706	38 079	1 196 554
30 June 2015	63 501	94 408	98 674	199 566	214 527	215 517	181 594	99 128	39 279	1 206 194
30 June 2016	63 880	94 469	99 045	202 725	212 583	216 185	185 595	111 705	42 980	1 219 494
30 June 2017	63 081	94 658	99 593	205 973	211 581	216 155	186 297	112 684	42 084	1 232 106
30 June 2018	63 558	94 773	100 387	209 205	210 073	216 126	188 749	119 367	43 777	1 246 015

See end notes.

Note: Persons total includes drivers of unspecified gender.

Source: BITRE estimates based on Department of Planning, Transport and Infrastructure (SA) data (2019).

Table T 4.11e Licence holders, by age and gender—Western Australia

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	20 994	64 456	81 366	161 477	164 217	149 425	110 700	56 568	17 451	826 654
30 June 2015	21 079	63 733	82 195	166 430	165 384	151 251	115 009	59 919	19 070	844 070
30 June 2016	21 918	62 766	81 908	171 283	166 189	152 555	119 704	63 403	20 711	860 437
30 June 2017	21 811	61 905	80 413	174 398	166 497	153 534	121 573	69 182	22 551	871 864
30 June 2018	25 386	62 105	78 809	177 619	166 401	154 776	124 616	73 954	24 696	888 362
Male										
30 June 2014	24 535	71 010	93 642	181 719	178 908	159 668	121 197	63 529	22 785	916 993
30 June 2015	24 380	69 631	93 344	187 251	179 647	162 264	124 244	66 741	24 157	931 659
30 June 2016	24 340	68 878	91 609	191 589	180 292	163 236	128 056	70 153	25 602	943 755
30 June 2017	23 952	67 964	88 391	193 512	179 392	164 092	128 954	75 771	27 384	949 412
30 June 2018	26 937	68 084	85 208	193 301	178 413	164 950	131 037	80 789	29 377	958 096
Persons										
30 June 2014	45 530	135 482	175 076	343 359	343 492	309 596	232 382	120 323	40 283	1 745 523
30 June 2015	45 460	133 372	175 592	353 832	345 356	314 026	239 707	126 888	43 282	1 777 515
30 June 2016	46 258	131 656	173 555	363 024	346 773	316 254	248 203	133 805	46 367	1 805 895
30 June 2017	45 765	129 877	168 836	368 055	346 140	318 057	250 961	145 213	49 989	1 822 893
30 June 2018	52 324	130 193	164 041	371 038	345 032	320 132	256 050	155 013	54 140	1 847 963

See end notes.

Note: Data were revised for all years due to new method of calculating age groups.
Data is for 15–19 year olds (rather than 16–19).
Persons total includes drivers of unspecified gender

Source: BITRE estimates based on Department of Transport (WA) data (2019).

Table T 4.11f Licence holders, by age and gender—Tasmania

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	10 134	13 254	13 192	27 046	32 439	35 187	29 763	15 516	5 352	181 883
30 June 2015	10 177	13 468	13 033	27 207	32 301	35 147	30 694	16 609	5 784	184 420
30 June 2016	10 296	13 538	13 417	27 926	32 355	35 334	31 707	17 865	6 553	188 991
30 June 2017	10 246	13 508	13 554	27 943	31 580	35 167	32 003	19 185	6 796	189 982
30 June 2018	10 306	13 713	14 023	28 905	31 638	35 113	32 727	20 300	7 155	193 880
Male										
30 June 2014	10 218	13 679	13 110	26 354	31 570	34 893	30 710	17 322	6 492	184 348
30 June 2015	10 184	13 740	13 111	26 406	31 118	34 930	31 396	18 170	6 821	185 876
30 June 2016	10 280	14 010	13 580	27 055	31 342	34 949	32 490	19 216	7 392	190 314
30 June 2017	10 191	13 863	13 553	27 090	30 718	34 492	32 258	20 518	7 550	190 233
30 June 2018	10 265	13 930	14 323	28 285	30 537	34 326	32 754	21 605	7 868	193 893
Persons										
30 June 2014	20 352	26 933	26 302	53 400	64 009	70 080	60 473	32 838	11 844	366 231
30 June 2015	20 361	27 208	26 144	53 613	63 419	70 077	62 090	34 779	12 605	370 296
30 June 2016	20 576	27 548	26 997	54 981	63 697	70 283	64 197	37 081	13 945	379 305
30 June 2017	20 437	27 371	27 107	55 033	62 298	69 659	64 261	39 703	14 346	380 215
30 June 2018	20 571	27 643	28 346	57 190	62 175	69 439	65 481	41 905	15 023	387 773

See end notes.

Source: BITRE estimates based on Department of State Growth (TAS) data (2019).

Table T 4.11g Licence holders, by age and gender—Northern Territory

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	3 113	6 225	8 316	15 754	13 526	11 499	6 441	1 966	405	67 245
30 June 2015	2 990	6 222	8 441	16 224	13 459	11 606	6 617	2 087	443	68 089
30 June 2016	3 134	6 178	8 561	16 901	13 712	11 611	6 880	2 265	455	69 697
30 June 2017	3 269	6 156	8 749	17 400	13 718	11 619	7 080	2 464	505	70 960
30 June 2018	3 416	6 190	8 641	17 629	13 762	11 686	7 324	2 698	570	71 916
Male										
30 June 2014	3 482	7 892	10 322	18 168	16 196	14 442	9 243	3 054	609	83 408
30 June 2015	3 448	7 508	10 476	18 668	16 306	14 486	9 482	3 172	633	84 179
30 June 2016	3 488	7 493	10 165	19 147	16 298	14 489	9 588	3 389	651	84 708
30 June 2017	3 611	7 599	9 889	19 484	16 225	14 557	9 653	3 688	678	85 384
30 June 2018	3 599	7 424	9 588	19 634	16 162	14 417	9 803	4 000	753	85 380
Persons										
30 June 2014	6 595	14 117	18 638	33 922	29 722	25 941	15 684	5 020	1 014	150 653
30 June 2015	6 438	13 730	18 917	34 892	29 765	26 092	16 099	5 259	1 076	152 268
30 June 2016	6 622	13 671	18 726	36 048	30 010	26 100	16 468	5 654	1 106	154 405
30 June 2017	6 880	13 755	18 638	36 884	29 943	26 176	16 733	6 152	1 183	156 344
30 June 2018	7 015	13 614	18 229	37 263	29 924	26 103	17 127	6 698	1 323	157 296

See end notes.

Source: BITRE estimates based on Department of Transport (NT) data (2019).

Table T 4.11h Licence holders, by age and gender—Australian Capital Territory

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	8 199	14 419	16 448	31 843	29 544	24 387	17 878	8 082	3 903	154 703
30 June 2015	8 290	14 442	16 454	31 843	28 544	24 384	17 867	8 078	3 903	153 805
30 June 2016	8 575	13 576	16 365	34 868	29 879	25 313	19 455	10 517	3 868	162 416
30 June 2017	8 539	14 033	16 682	34 616	29 410	24 852	18 930	10 211	3 406	160 679
30 June 2018	8 310	13 982	16 995	35 836	29 972	24 991	19 191	10 937	3 591	163 805
Male										
30 June 2014	8 452	15 182	17 050	33 306	29 204	24 416	18 459	8 749	4 723	159 541
30 June 2015	8 515	15 049	16 864	33 045	29 036	24 302	18 360	8 623	4 668	158 462
30 June 2016	8 646	14 176	16 798	35 636	30 792	25 262	19 353	10 834	4 462	165 959
30 June 2017	8 422	14 520	16 987	35 443	30 299	24 750	18 829	10 474	4 013	163 737
30 June 2018	8 305	14 484	17 402	36 441	30 755	25 077	18 987	11 099	4 155	166 705
Persons										
30 June 2014	16 651	29 601	33 498	65 149	58 748	48 803	36 337	16 831	8 626	314 244
30 June 2015	16 805	29 491	33 318	64 888	57 580	48 686	36 227	16 701	8 571	312 267
30 June 2016	12 129	27 752	33 163	70 505	60 671	50 576	38 808	21 351	8 330	323 285
30 June 2017	16 967	28 556	33 674	70 064	59 711	49 603	37 759	20 686	7 419	324 439
30 June 2018	16 624	28 476	34 411	72 295	60 732	50 075	38 178	22 037	7 746	330 574

See end notes.

Note: Data is for 15–19 year olds (rather than 16–19).
Persons total includes drivers of unspecified gender.

Source: BITRE estimates based on ACT Office of Regulatory Services data (2019).

Table T 4.11i Licence holders, by age and gender—Australia

Date	Age									
	16–19	20–24	25–29	30–39	40–49	50–59	60–69	70–79	80+	Total
Female										
30 June 2014	415 779	657 006	732 353	1 512 090	1 539 622	1 405 652	1 075 636	543 465	197 167	8 078 770
30 June 2015	417 784	661 071	742 646	1 543 801	1 551 135	1 423 462	1 109 280	576 376	200 225	8 225 780
30 June 2016	423 082	661 312	754 453	1 585 701	1 565 143	1 439 161	1 146 273	616 225	212 572	8 398 823
30 June 2017	424 958	665 211	763 662	1 623 854	1 575 060	1 451 165	1 163 900	664 541	224 472	8 556 823
30 June 2018	439 652	668 192	771 414	1 663 783	1 584 734	1 463 115	1 190 724	709 729	237 476	8 728 819
Male										
30 June 2014	433 352	681 038	765 841	1 565 187	1 574 181	1 460 879	1 159 115	631 637	258 680	8 529 910
30 June 2015	432 636	684 617	773 259	1 596 987	1 583 795	1 477 231	1 184 044	660 809	259 992	8 653 370
30 June 2016	435 720	687 748	781 050	1 637 363	1 596 109	1 489 269	1 213 661	696 760	271 695	8 804 894
30 June 2017	436 242	693 175	787 672	1 673 316	1 604 706	1 499 216	1 222 512	743 025	283 390	8 943 254
30 June 2018	447 532	697 098	796 338	1 707 432	1 612 469	1 508 464	1 240 937	785 189	295 774	9 091 233
Persons										
30 June 2014	849 132	1 338 061	1 498 262	3 077 442	3 114 170	2 867 034	2 235 236	1 175 328	455 894	16 610 559
30 June 2015	850 443	1 345 704	1 515 974	3 140 961	3 135 279	2 901 230	2 293 790	1 237 421	460 273	16 881 075
30 June 2016	853 762	1 349 109	1 535 589	3 223 258	3 161 586	2 928 930	2 360 406	1 313 224	484 348	17 200 539
30 June 2017	861 286	1 358 441	1 551 441	3 297 374	3 180 078	2 950 877	2 386 876	1 407 847	507 919	17 502 139
30 June 2018	887 294	1 365 369	1 567 924	3 371 428	3 197 482	2 972 082	2 432 100	1 495 211	533 323	17 822 213

See end notes.

Source: BITRE estimates based on state/territory licensing data (2019).

Table T 4.12a Licensed vehicle operators, by vehicle type—New South Wales

Date			Highest class of heavy vehicle licence				
	Car	Motorcycle	Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	4 434 064	497 469	90 810	129 138	201 400	107 581	22 959
30 June 2015	4 520 447	512 932	93 057	130 642	200 719	106 026	24 099
30 June 2016	4 602 368	582 998	93 461	133 276	203 002	104 923	24 994
30 June 2017	4 679 214	541 893	93 068	133 293	204 539	104 461	25 962
30 June 2018	4 793 077	554 339	92 293	134 539	207 266	103 651	26 859
Provisional licence							
30 June 2014	422 097	29 563	140	1 105	867		
30 June 2015	438 304	30 256	128	1 165	991		
30 June 2016	451 903	29 635	118	1 175	1 007		
30 June 2017	465 831	29 323	135	1 207	1 164		
30 June 2018	430 895	28 232	120	1 074	1 017		
L Permits							
30 June 2014	282 832	27 552					
30 June 2015	283 601	26 120					
30 June 2016	282 462	25 886					
30 June 2017	290 987	25 910					
30 June 2018	301 177	25 296					

See end notes.

Note: Some licence holders may appear under more than one vehicle type (car, motorcycle and heavy vehicle).

Source: BITRE estimates based on data prioded online by NSW Roads and Maritime Services data (2019).

Table T 4.12b Licensed vehicle operators, by vehicle type—Victoria

Date			Highest class of heavy vehicle licence				
	Car	Motorcycle	Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	3 719 847	367 222	35 270	92 525	173 629	129 679	26 134
30 June 2015	3 786 036	380 241	38 566	93 409	176 151	127 679	27 508
30 June 2016	3 868 031	394 801	40 392	94 523	179 861	126 641	28 717
30 June 2017	3 951 671	404 069	41 696	95 735	184 005	126 197	29 960
30 June 2018	4 039 320	411 487	42 315	97 216	188 949	126 541	31 397
Provisional licence							
30 June 2014	286 231	6 118	43	1 365	1 125	173	26
30 June 2015	290 357	6 790	48	1 382	1 227	194	19
30 June 2016	304 723	7 246	49	1 276	1 252	175	32
30 June 2017	295 085	6 237	43	1 195	1 220	189	37
30 June 2018	300 904	4 965	41	1 127	1 234	195	31
L Permits							
30 June 2014	304 305	19 572					
30 June 2015	308 119	18 022					
30 June 2016	311 765	16 194					
30 June 2017	313 608	10 339					
30 June 2018	325 669	11 101					

See end notes.

Note: Some licence holders may appear under more than one vehicle type (car, motorcycle and heavy vehicle).

Source: BITRE estimates based on VicRoads data (2019).

Table T 4.12c Licensed vehicle operators, by vehicle type—Queensland

Date			Highest class of heavy vehicle licence				
	Car	Motorcycle	Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	2 864 350	654 427	47 650	93 616	244 899	85 899	49 185
30 June 2015	2 909 487	664 046	49 038	93 845	246 100	83 640	51 227
30 June 2016	2 978 250	680 046	50 687	94 886	247 700	81 724	53 667
30 June 2017	3 049 092	690 654	52 785	95 615	248 553	79 940	55 763
30 June 2018	3 122 025	690 310	55 116	96 280	249 139	77 856	57 950
Provisional licence							
30 June 2014	201 470	6 477	285	1 664	2 131	542	537
30 June 2015	198 282	6 249	278	1 548	2 061	519	521
30 June 2016	200 336	6 692	265	1 631	2 212	501	644
30 June 2017	201 077	4 290	254	1 562	2 186	480	599
30 June 2018	199 625	4 819	239	1 458	2 066	439	591
L Permits							
30 June 2014	173 507	148 777			0	0	15
30 June 2015	174 731	150 497			1	178	15
30 June 2016	175 337	155 339			2	172	13
30 June 2017	176 184	155 398			2	169	13
30 June 2018	186 424	152 183			1	166	13

See end notes.

Note: Some licence holders may appear under more than one vehicle type (car, motorcycle and heavy vehicle).

na: not available.

Source: BITRE estimates based on Department of Transport and Main Roads (QLD) data (2019)

Table T 4.12d Licensed vehicle operators, by vehicle type—South Australia

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	1 149 139	166 083	27 775	40 705	59 803	37 585	11 013
30 June 2015	1 107 573	163 190	25 914	40 579	59 075	36 621	11 465
30 June 2016	1 122 053	162 303	25 071	40 801	58 267	35 837	11 916
30 June 2017	1 114 415	160 791	24 617	40 721	57 265	34 841	12 242
30 June 2018	1 125 157	160 756	24 778	40 844	57 008	34 142	12 584
Provisional licence							
30 June 2014	69 619	1 325	23	446	338	141	35
30 June 2015	54 743	1 120	10	281	240	90	27
30 June 2016	51 282	1 078	9	254	193	72	23
30 June 2017	66 228	1 440	10	297	198	107	22
30 June 2018	67 794	1 583	10	272	210	118	13
L Permits							
30 June 2014	43 198	7 897	0	2	10	272	0
30 June 2015	43 100	7 781	0	2	6	220	0
30 June 2016	46 026	7 593	0	2	9	193	1
30 June 2017	45 815	7 737	0	3	5	195	2
30 June 2018	47 749	7 919	0	3	5	223	1

See end notes.

Note: Some licence holders may appear under more than one vehicle type (car, motorcycle and heavy vehicle).

Source: BITRE estimates based on Department of Planning, Transport and Infrastructure (SA) data (2019).

Table T 4.12e Licensed vehicle operators, by vehicle type—Western Australia

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	1 733 736	263 798	30 016	30 256	188 631	67 709	31 885
30 June 2015	1 766 501	267 164	30 249	30 926	190 704	66 339	33 187
30 June 2016	1 795 528	269 496	30 489	31 371	192 368	64 857	34 289
30 June 2017	1 817 165	270 796	30 772	31 449	194 546	63 371	35 273
30 June 2018	1 834 816	271 192	31 423	31 486	195 195	61 286	36 005
Provisional licence							
30 June 2014	59 427	4 819	11	63	8	0	6
30 June 2015	61 115	4 484	4	49	3	1	5
30 June 2016	63 523	4 106	6	40	6	2	3
30 June 2017	62 802	3 652	4	45	5	2	4
30 June 2018	72 599	3 194	7	44	4	4	0
L Permits							
30 June 2014	125 015	30 169	1 378	2 177	16 401	1 788	2 457
30 June 2015	125 638	29 505	1 260	2 162	14 283	1 682	2 399
30 June 2016	122 480	28 347	1 279	2 015	11 093	1 323	1 960
30 June 2017	118 935	26 555	1 279	1 946	8 319	958	1 489
30 June 2018	107 160	25 249	1 226	1 936	6 192	691	1 044

See end notes.

Note: Full licence inclusive of Ordinary and Extra-ordinary licences.

Source: Department of Transport, Western Australia data (2019).

Table T 4.12f Licensed vehicle operators, by vehicle type—Tasmania

Date			Highest class of heavy vehicle licence				
	Car	Motorcycle	Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	328 797	44 173	7 921	27 341	13 995	12 060	2 077
30 June 2015	331 881	45 476	8 274	27 400	14 150	12 032	2 173
30 June 2016	336 434	47 176	8 717	27 541	14 385	11 988	2 303
30 June 2017	339 732	48 566	9 052	27 703	14 537	11 974	2 394
30 June 2018	346 244	50 315	9 550	27 651	14 653	11 837	2 511
Provisional licence							
30 June 2014	15 231	3 482	6	88	8	6	
30 June 2015	15 543	3 502	13	81	11	6	
30 June 2016	17 185	3 413	8	66	6	8	
30 June 2017	18 622	3 381	9	75	8	4	
30 June 2018	19 273	2 941	3	61	9	3	
L Permits							
30 June 2014	21 591	1 958					
30 June 2015	22 116	1 911					
30 June 2016	21 401	1 837					
30 June 2017	21 146	1 843					
30 June 2018	21 547	1 228					

See end notes.

Note: Some licence holders may appear under more than one vehicle type (car, motorcycle and heavy vehicle). Data are not readily available for missing years.

Source: BITRE estimates based on Department of State Growth (TAS) data (2019).

Table T 4.12g Licensed vehicle operators, by vehicle type—Northern Territory

Date			Highest class of heavy vehicle licence				
	Car	Motorcycle	Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	136 502	24 570	6 236	6 984	14 422	5 478	5 038
30 June 2015	138 374	24 824	6 301	6 876	15 013	5 367	5 152
30 June 2016	140 247	25 014	6 360	6 839	15 183	5 294	5 226
30 June 2017	141 205	25 112	6 443	6 844	15 361	5 136	5 357
30 June 2018	142 204	24 739	6 575	6 831	15 664	4 965	5 440
Provisional licence							
30 June 2014	6 319	134	5	8	2	0	0
30 June 2015	6 342	154	3	13	7	0	1
30 June 2016	6 708	130	7	6	1	0	1
30 June 2017	6 814	84	7	16	3	0	0
30 June 2018	6 513	101	3	13	3	0	1
L Permits							
30 June 2014	6 976	2 339		0	0		0
30 June 2015	6 605	2 195		0	0		0
30 June 2016	6 604	2 026		0	0		0
30 June 2017	7 361	2 068		0	0		0
30 June 2018	7 656	1 997		0	0		0

See end notes.

Note: Some licence holders may appear under more than one vehicle type (car, motorcycle and heavy vehicle). Full licence includes probabtionary licenses.

Source: BITRE estimates based on Department of Transport (NT) data (2019).

Table T 4.12h Licensed vehicle operators, by vehicle type—Australian Capital Territory

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	281 602	31 921	2 762	7 022	9 755	3 191	523
30 June 2015	287 703	32 849	2 820	7 068	9 722	3 132	526
30 June 2016	295 595	33 804	2 864	7 207	9 790	3 090	522
30 June 2017	301 877	34 522	2 922	7 245	9 779	3 021	536
30 June 2018	308 230	35 138	3 079	7 018	9 609	2 835	549
Provisional licence							
30 June 2014	19 976	1 440	1	21	4	0	0
30 June 2015	19 756	1 240	1	16	6	0	0
30 June 2016	19 904	1 125	1	17	5	0	0
30 June 2017	19 589	1 109	1	16	2	0	0
30 June 2018	19 552	1 160	0	16	6	1	0
L Permits							
30 June 2014	10 513	1 874					
30 June 2015	10 994	1 874					
30 June 2016	11 030	1 774					
30 June 2017	11 037	1 768					
30 June 2018	11 345	1 824					

See end notes.

Note: Some licence holders may appear under more than one vehicle type (car, motorcycle and heavy vehicle).

Source: BITRE estimates based on ACT Office of Regulatory Services data (2019).

Table T 4.12i Licensed vehicle operators, by vehicle type—Australia

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light rigid	Medium rigid	Heavy rigid	Heavy combination	Multi combination
Full licence							
30 June 2014	14 648 037	2 049 663	248 440	427 587	906 534	449 182	148 814
30 June 2015	14 848 002	2 090 722	254 219	430 745	911 634	440 836	155 337
30 June 2016	15 138 506	2 195 638	258 041	436 444	920 556	434 354	161 634
30 June 2017	15 394 371	2 176 403	261 355	438 605	928 585	428 941	167 487
30 June 2018	15 711 073	2 198 276	265 129	441 865	937 483	423 113	173 295
Provisional licence							
30 June 2014	1 080 370	53 358	514	4 760	4 483	862	604
30 June 2015	1 084 442	53 795	485	4 535	4 546	810	573
30 June 2016	1 115 564	53 425	463	4 465	4 682	758	703
30 June 2017	1 136 048	49 516	463	4 413	4 786	782	662
30 June 2018	1 117 155	46 995	423	4 065	4 549	760	636
L Permits							
30 June 2014	967 937	240 138	1 378	2 179	16 411	2 060	2 472
30 June 2015	974 904	237 905	1 260	2 164	14 290	2 080	2 414
30 June 2016	977 105	238 996	1 279	2 017	11 104	1 688	1 974
30 June 2017	985 073	231 618	1 279	1 949	8 326	1 322	1 504
30 June 2018	1 008 727	226 797	1 226	1 939	6 198	1 080	1 058

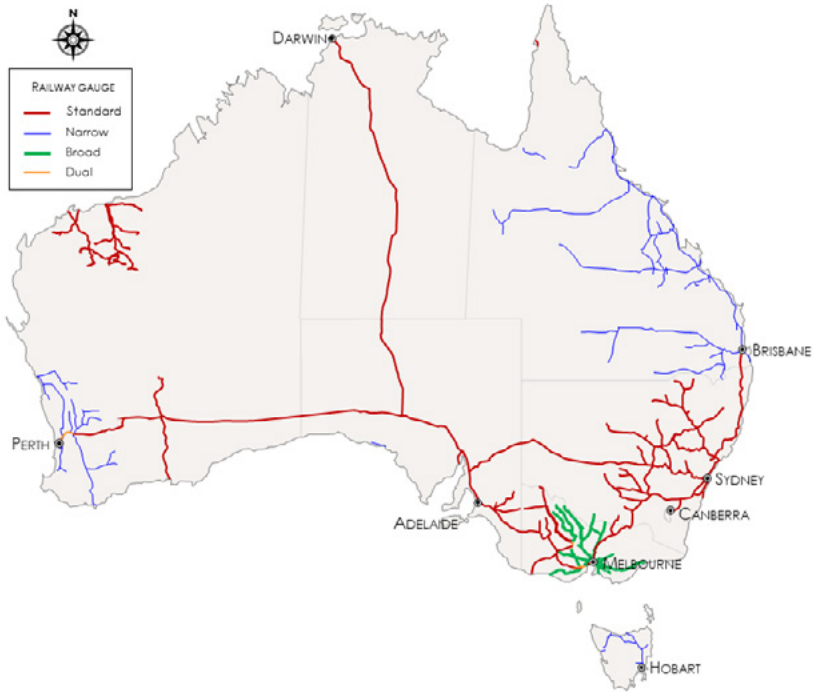
See end notes.

Note: Some licence holders may appear under more than one vehicle type (car, motorcycle and heavy vehicle).

Source: BITRE estimates based on ACT Office of Regulatory Services data (2019).

CHAPTER 5
Rail

Figure T 5 Australia's railways, by gauge



Note: The lines shown here are the railways that were open for traffic at September 2019. The only change since 2018 is the cessation of most (narrow gauge) operations on the South Australian Eyre Peninsula and the opening of the first stage of Sydney Metro.

Table T 5.1a Intercapital rail distances—freight terminals

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Darwin	Canberra
				kilometres			
Sydney		929	965	1 868	4 137	4 459	316
Melbourne			1 901	832	3 468	3 790	811
Brisbane				2 816	5 101	5 424	1 281
Adelaide					2 637	2 959	1 643
Perth						4 174	4 019
Darwin							4 341

Source: BITRE estimates.

Table T 5.1b Intercapital rail distances—passenger terminals

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Darwin	Canberra
				kilometres			
Sydney		953	987	1 711	4 156	4 285	329
Melbourne			1 914	828	3 485	3 798	822
Brisbane				2 672	4 933	5 247	1 291
Adelaide					2 657	2 971	1 629
Perth						4 178	4 025
Darwin							4 339

Source: BITRE estimates.

Table T 5.2a Estimated route-kilometres of open railway as at December 2019, by jurisdiction and gauge

Jurisdiction	Gauge					
	1 067	1 435	1 600	Dual	Other	Total
New South Wales		7 128	73		1	7 202
Victoria	16	1 912	2 357	32		4 317
Queensland	8 146	117		36	4	8 303
South Australia	184	2 561	253	22		3 020
Western Australia	2 970	4 558		207		7 735
Tasmania	611				7	618
Northern Territory	3	1 690				1 693
ACT		6				6
Total	11 930	17 972	2 683	297	12	32 894

See end notes.
Source: BITRE estimates..

Table T 5.2b Estimated route-kilometres of open railway as at December 2019, by jurisdiction and single or double (or more) trackage

Jurisdiction	Trackage		
	Double (or more)	Single	Total
New South Wales	1 212	5 990	7 202
Victoria	883	3 434	4 317
Queensland	839	7 464	8 303
South Australia	122	2 898	3 020
Western Australia	953	6 782	7 735
Tasmania	0	618	618
Northern Territory	0	1 693	1 693
ACT	0	6	6
Total	4 009	28 885	32 894

See end notes.
Source: BITRE estimates.

Table T 5.2c Estimated route-kilometres of open railway as at December 2019, by jurisdiction and overhead electrical system used

Jurisdiction	Electrical system					
	1 500 V DC	25 kV AC, 50 Hz	33 kV AC	De-electrified	Not electrified	Total
New South Wales	665		8	2	6 527	7 202
Victoria	383			100	3 834	4 317
Queensland		2 173			6 130	8 303
South Australia		44			2 976	3 020
Western Australia		181			7 554	7 735
Tasmania					618	618
Northern Territory					1 693	1 693
ACT					6	6
Total	1 048	2 398	8	102	29 338	32 894

See end notes.
Source: BITRE estimates.

Table T 5.3 Network characteristics of heavy urban passenger railways

	Route–kilometres in metropolitan area					
	Passenger–only lines	Freight–only lines	Shared passenger/freight	Total	Route–kilometres, electrified	Metropolitan Stations
Sydney	na	na	na	400.0	400.0	186.0
Melbourne	220.0	28.0	181.0	429.0	370.0	221.0
Brisbane	127.8	34.9	268.1	430.8	413.8	152.0
Adelaide	126.0	62.0		188.0	44.0	87.0
Perth	180.0	48.0	1.0	229.0	181.0	71.0

Note: Brisbane route kilometres and stations includes the recently opened Petrie – Kippa–Ring line.
Source: BITRE (2019i).

Table T 5.4 Interstate non–bulk rail freight by state/territory of origin

Financial year	NSW	VIC	QLD	SA	WA	NT	ACT	Total
				million tonne–kilometres				
1971–72	1 208	1 550	414	1 212	288	63	na	4 735
1972–73	1 318	1 688	413	1 281	472	67	na	5 238
1973–74	1 429	1 822	412	1 344	657	70	na	5 733
1974–75	1 542	1 952	411	1 404	841	74	na	6 223
1975–76	1 656	2 079	410	1 458	1 026	77	na	6 706
1976–77	1 706	2 066	429	1 537	961	82	na	6 780
1977–78	1 756	2 052	448	1 614	897	87	na	6 853
1978–79	1 806	2 040	467	1 689	832	91	na	6 927
1979–80	1 857	2 020	487	1 763	768	96	na	6 991
1980–81	1 877	2 125	443	1 692	931	93	na	7 161
1981–82	1 670	2 045	464	1 520	1 111	85	na	6 895
1982–83	1 464	1 964	485	1 352	1 292	76	na	6 632
1983–84	1 671	2 134	495	1 575	1 164	94	na	7 134
1984–85	1 646	2 177	555	1 488	1 155	87	na	7 108
1985–86	1 846	2 106	681	1 321	1 345	79	na	7 379
1986–87	2 007	2 171	737	1 628	1 402	93	na	8 038
1987–88	2 545	2 468	760	1 865	1 404	107	na	9 149
1988–89	2 864	2 970	865	2 059	1 580	113	na	10 451
1989–90	2 623	2 846	952	2 242	1 467	112	na	10 241
1990–91	2 381	2 844	978	1 970	1 540	117	na	9 829
1991–92	2 416	2 968	1 100	2 013	1 728	122	na	10 346
1992–93	2 576	2 967	1 162	2 235	1 952	132	na	11 023
1993–94	2 698	3 167	1 225	2 344	2 167	139	na	11 740
1994–95	2 851	3 396	1 288	2 454	2 382	147	na	12 518
1995–96	2 873	3 329	1 352	2 448	2 107	154	na	12 264
1996–97	2 884	3 679	1 443	2 347	2 300	120	na	12 772
1997–98	2 916	3 997	1 641	2 338	2 583	150	na	13 624
1998–99	2 926	4 469	1 444	2 262	3 130	138	na	14 369
1999–00	2 918	4 620	1 580	2 348	3 422	154	na	15 042
2000–01	2 910	4 775	1 703	2 432	3 708	170	na	15 697
2001–02	2 917	4 934	1 803	2 513	4 285	185	na	16 636
2002–03	2 922	5 091	1 903	2 592	4 859	200	na	17 567
2003–04	2 930	5 251	2 002	2 672	5 437	214	na	18 506
2004–05	2 939	5 410	2 102	2 751	6 008	214	na	19 426
2005–06	2 948	5 570	2 202	2 832	6 586	214	na	20 353
2006–07	4 074	8 409	2 365	4 985	6 570	454	na	26 857
2007–08	4 342	7 242	2 677	4 079	6 642	621	na	25 603
2008–09	3 851	6 586	2 041	4 229	5 913	550	na	23 170
2009–10	3 948	6 688	2 206	3 867	6 008	513	na	23 230

See end notes.

na: not applicable.

Source: BITRE (2012).

Table T 5.5a Public transit patronage on heavy rail, Australian capital cities

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
	million passenger movements								
1979–80	201.3	100.8	28.0	13.1	7.2				350.4
1980–81	207.9	97.4	30.3	13.8	6.5				355.9
1981–82	214.9	89.0	32.4	14.7	6.1				357.1
1982–83	202.8	91.4	33.1	12.9	6.8				347.0
1983–84	198.1	94.4	35.8	12.4	8.7				349.4
1984–85	196.5	97.5	37.4	11.8	8.7				351.9
1985–86	213.9	102.9	40.3	12.8	9.8				379.7
1986–87	220.5	106.0	43.0	12.5	9.7				391.7
1987–88	240.2	100.1	45.0	9.5	9.4				404.2
1988–89	240.6	105.7	49.4	10.1	8.8				414.6
1989–90	244.6	107.1	43.3	10.0	8.4				413.4
1990–91	246.5	106.9	42.1	8.9	7.6				411.9
1991–92	238.8	109.0	40.1	8.4	9.6				405.8
1992–93	227.7	106.1	39.4	9.1	13.6				395.8
1993–94	231.3	101.1	38.4	10.5	22.9				404.3
1994–95	244.6	105.5	37.0	10.9	23.4				421.4
1995–96	249.9	109.3	39.2	10.8	25.9				435.1
1996–97	257.0	112.7	41.5	10.7	29.0				450.9
1997–98	258.4	113.1	41.5	10.5	29.2				452.7
1998–99	261.9	118.4	41.0	10.3	28.9				460.5
1999–00	270.4	125.4	42.2	10.3	29.5				477.7
2000–01	293.1	130.5	44.2	10.2	31.2				509.3
2001–02	267.1	131.8	45.4	8.1	31.0				483.4
2002–03	263.7	133.8	46.2	8.4	31.4				483.5
2003–04	263.6	134.9	48.1	8.8	31.1				486.5
2004–05	259.9	145.1	48.6	8.9	32.7				495.2
2005–06	261.9	159.1	53.1	9.4	34.1				517.6
2006–07	269.0	178.6	57.9	9.3	35.8				550.6
2007–08	283.3	201.2	51.0	9.4	42.6				587.5
2008–09	292.2	213.9	54.7	9.6	54.7				625.1
2009–10	289.1	219.3	52.3	9.4	56.4				626.5
2010–11	294.5	228.9	51.0	8.8	58.9				642.1
2011–12	303.5	222.0	52.8	8.0	63.0				649.3
2012–13	272.4	225.5	48.5	8.0	65.7				620.1
2013–14	282.2	225.7	50.9	8.2	63.5				630.5
2014–15	291.9	227.5	51.6	10.9	64.2				646.1
2015–16	322.6	233.4	52.4	11.3	62.6				682.3
2016–17	340.7	236.8	51.0	14.3	60.1				702.9
2017–18	359.2	240.9	53.6	14.5	58.2				726.4

Note: Values denote total UPT train passenger trips including concessions and transfers. Up to 2000–01, figures refer to trips within the metropolitan area. From 2001–02 on, figures refer to all trips on suburban rail networks.

Source: BITRE (2019i), BITRE (2015c).

Table T 5.5b Public transit patronage on light rail, Australian capital cities

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
				million passenger movements					
1979–80	0.0	98.9		3.0					101.9
1980–81	0.0	100.1		2.9					103.0
1981–82	0.0	102.4		2.9					105.3
1982–83	0.0	101.3		2.8					104.1
1983–84	0.0	102.1		2.8					104.9
1984–85	0.0	109.4		2.7					112.1
1985–86	0.0	112.4		2.6					115.0
1986–87	0.0	113.3		2.6					115.9
1987–88	0.0	115.6		2.4					118.0
1988–89	3.5	118.9		2.7					125.1
1989–90	3.5	95.6		2.2					101.3
1990–91	3.4	107.6		2.2					113.2
1991–92	3.4	112.0		2.1					117.5
1992–93	3.4	100.9		1.8					106.1
1993–94	3.4	104.0		1.8					109.2
1994–95	3.4	108.6		2.0					113.9
1995–96	4.0	114.1		1.9					120.0
1996–97	4.7	115.4		1.9					122.0
1997–98	5.4	117.2		1.9					124.5
1998–99	5.8	121.6		1.9					129.3
1999–00	6.2	129.8		1.9					138.0
2000–01	6.7	133.9		2.0					142.6
2001–02	6.3	137.2		2.0					145.5
2002–03	6.2	140.6		2.0					148.8
2003–04	5.1	142.5		2.2					149.7
2004–05		145.3							145.3
2005–06		149.6							149.6
2006–07		154.9							154.9
2007–08		158.3							158.3
2008–09		178.1							178.1
2009–10		175.6							175.6
2010–11	3.3	182.7							186.0
2011–12	4.4	191.6							196.0
2012–13	3.6	182.7							186.3
2013–14	3.9	176.9							180.8
2014–15	6.1	182.1	6.3	8.9					203.4
2015–16	9.7	203.8	7.7	8.9					230.1
2016–17	10.0	204.0	7.9	7.2					229.1
2017–18	10.2	206.3	9.5	9.4					235.4

Note: Values denote total UPT passenger trips (including concessions and transfers) on all metropolitan light rail networks. Up to 2003–04, figures include the Sydney monorail, which closed in 2013.

Source: BITRE (2019i), BITRE (2015c).

CHAPTER 6
Aviation

Figure T 6 Australia's top 40 airports in 2018–19, passengers

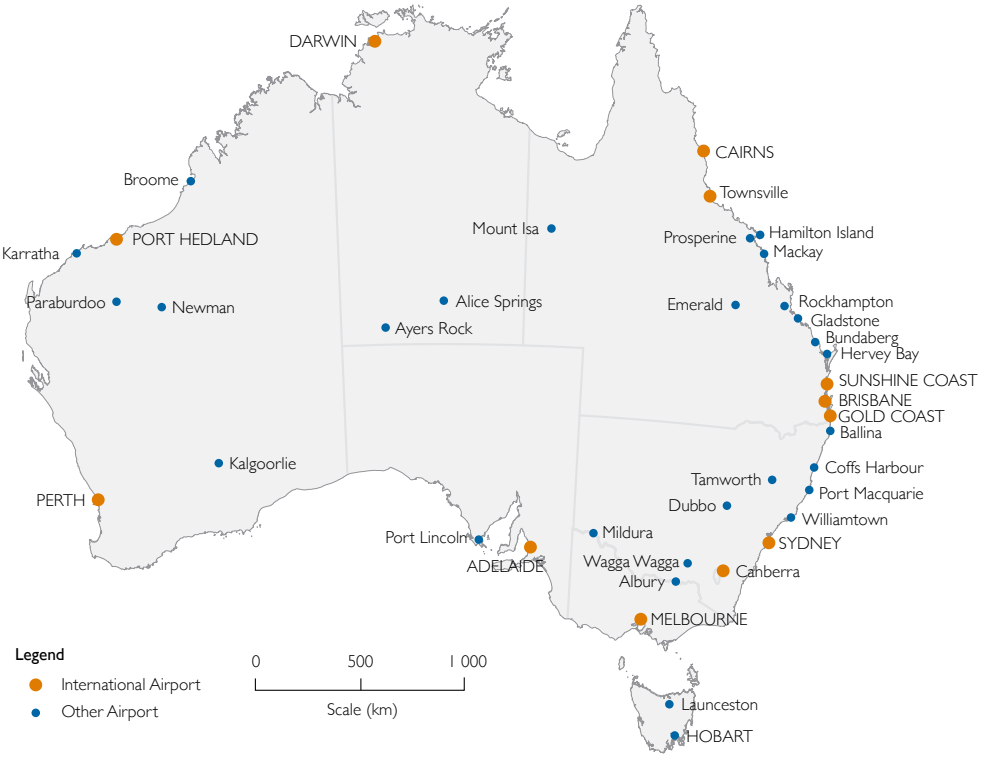


Table T 6.1 Intercapital air distances (great circle distances)

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
				km				
Sydney		706	753	1 167	3 284	1 039	3 155	236
Melbourne			1 381	643	2 706	618	3 131	470
Brisbane				1 622	3 615	1 791	2 852	956
Adelaide					2 120	1 172	2 619	972
Perth						3 022	2 651	3 091
Hobart							3 742	850
Darwin								3 141

Source: BITRE (2019e).

Table T 6.2 International airline activity

Financial year	Flights	Revenue passengers [18]	Available seats	Load factor [19]	Freight
	no.	*no.*	*no.*	*per cent*	*'000 tonnes*
1972–73	19 735	1 769 816			44.7
1973–74	20 474	2 160 876			58.1
1974–75	27 013	2 392 102			65.8
1975–76	23 267	2 801 883			71.1
1976–77	21 938	2 894 965			78.5
1977–78	24 082	3 036 960			89.2
1978–79	20 764	3 506 753			111.8
1979–80	20 478	4 019 316			122.0
1980–81	20 487	4 108 265			127.8
1981–82	22 346	4 186 171			157.7
1982–83	21 486	4 249 249			166.7
1983–84	21 082	4 451 708			193.9
1984–85	22 385	4 988 998			222.9
1985–86	25 308	5 424 377			235.8
1986–87	29 698	6 194 981			268.4
1987–88	33 848	7 211 743			296.1
1988–89	38 854	7 930 588	11 435 873	69.3	324.6
1989–90	42 353	8 252 769	12 257 200	67.3	353.9
1990–91	45 300	8 424 511	12 991 767	64.8	357.5
1991–92	48 419	9 042 889	13 773 493	65.7	379.8
1992–93	52 295	9 759 065	15 023 875	65.0	432.8
1993–94	54 781	10 621 976	15 709 444	67.6	476.3
1994–95	60 658	11 565 753	17 443 065	66.9	543.5
1995–96	68 387	12 679 451	19 610 366	66.0	564.9
1996–97	74 347	13 718 480	20 792 015	67.4	614.9
1997–98	77 811	14 080 113	21 604 059	66.7	645.6
1998–99	80 476	14 564 061	21 621 816	68.9	645.6
1999–00	86 751	15 583 694	22 895 592	69.3	687.2
2000–01	93 828	17 126 504	24 565 665	71.1	665.7
2001–02	87 557	16 486 343	22 892 570	73.8	634.3
2002–03	89 374	16 108 417	23 062 891	71.8	635.1
2003–04	100 336	18 131 286	25 885 687	71.5	627.0
2004–05	116 087	20 309 733	29 691 278	69.7	702.4
2005–06	117 790	21 096 951	30 041 002	71.3	726.0
2006–07	119 330	22 137 767	29 768 595	75.6	754.5
2007–08	124 176	23 264 573	30 625 242	77.1	781.0
2008–09	131 560	23 486 506	32 174 834	74.2	709.4
2009–10	141 194	25 625 654	34 309 383	75.7	760.0
2010–11	150 440	27 549 289	36 923 253	75.5	822.5
2011–12	156 100	28 882 348	38 574 696	76.6	856.8
2012–13	161 101	30 309 898	40 433 560	77.3	882.8
2013–14	174 045	32 422 133	43 732 584	76.5	882.4
2014–15	175 251	33 864 637	44 226 790	79.0	939.8
2015–16	183 206	36 228 731	46 946 066	79.7	996.6
2016–17	193 267	38 660 946	50 599 437	79.3	1044.8
2017–18	201 374	40 619 342	52 896 690	79.6	1150.8
2018–19	205 814	42 121 004	53 863 238	80.4	1140.9

See end notes.

Note: Data are not readily available for missing years.

Source: BITRE (2019g).

Table T 6.3 Domestic airline activity

Financial year	Flights	Revenue passengers [18]	Revenue passenger kilometres [20]	Available seats	Available seat kilometres	Domestic load factor [21]	Cargo
			'000	'000	'000	per cent	'000 tonnes
1977–78	374 866	11 958 560	8 313 930		12 465 976	66.7	
1978–79	397 242	12 587 854	8 787 099		12 795 744	68.7	
1979–80	415 879	13 540 872	9 692 782		13 526 185	71.7	
1980–81	416 282	13 563 340	9 979 054		13 627 596	73.2	
1981–82	416 291	13 695 462	10 406 883		14 933 230	69.7	
1982–83	411 027	12 644 727	9 586 535		14 247 860	67.3	
1983–84	406 679	13 037 551	9 940 350		13 966 231	71.2	
1984–85	411 621	13 768 268	10 604 648	21 123	14 733 094	72.0	
1985–86	426 450	14 798 619	11 588 920	22 642	16 109 845	71.9	
1986–87	427 149	15 267 094	12 372 645	23 352	17 316 196	71.5	
1987–88	435 622	16 471 140	13 623 398	24 130	18 321 841	74.4	
1988–89	452 433	16 844 631	14 168 630	24 430	18 821 360	75.3	
1989–90	364 595	12 272 726	10 490 243	18 836	14 846 965	70.7	
1990–91	444 183	16 935 005	15 139 951	26 123	21 748 111	69.6	
1991–92	490 740	20 997 030	19 806 981	29 384	25 703 400	77.1	
1992–93	522 879	21 475 685	19 849 262	30 943	26 293 801	75.5	
1993–94	543 428	24 788 627	23 862 333	35 549	32 153 754	74.2	
1994–95	572 035	26 997 493	26 394 411	39 610	36 685 149	71.9	
1995–96	589 501	28 611 325	28 372 962	41 964	39 670 986	71.5	
1996–97	592 477	29 040 584	29 344 131	43 024	41 423 354	70.8	
1997–98	589 262	29 358 221	29 780 624	42 291	41 077 354	72.5	
1998–99	596 302	29 733 510	30 390 004	42 322	41 276 389	73.6	
1999–00	595 629	31 365 384	32 203 645	43 442	42 669 709	75.5	
2000–01	625 903	34 105 561	35 014 922	47 541	46 709 057	75.0	
2001–02	493 750	30 510 909	32 300 227	41 596	42 265 977	76.4	
2002–03	484 895	32 104 317	35 103 726	43 207	45 534 719	77.1	
2003–04	501 771	36 410 853	40 402 092	47 683	51 741 384	78.1	
2004–05	544 317	40 435 504	45 047 723	53 859	58 303 803	77.3	
2005–06	545 410	42 531 425	47 782 489	56 532	61 808 822	77.3	
2006–07	541 497	45 827 236	52 022 148	59 121	65 670 698	79.2	
2007–08	562 366	49 278 702	56 191 023	63 873	71 066 014	79.1	
2008–09	563 245	50 238 810	57 551 830	65 493	73 180 717	78.6	
2009–10	577 968	51 744 281	59 007 388	66 577	74 182 141	79.5	
2010–11	610 889	54 733 463	63 132 736	70 604	80 236 667	78.7	253
2011–12	615 706	54 972 783	64 329 950	71 105	81 619 150	78.8	236
2012–13	641 532	57 101 239	67 150 979	76 656	87 503 289	76.7	215
2013–14	640 437	57 715 861	68 079 149	77 721	89 533 104	76.0	197
2014–15	633 248	57 233 927	67 439 299	76 560	88 253 534	76.4	192
2015–16	640 619	58 438 418	68 840 249	77 212	88 892 186	77.4	195
2016–17	641 564	59 300 109	69 483 706	77 250	88 672 078	78.4	225
2017–18	634 355	60 749 890	70 861 416	77 487	88 517 037	80.1	231
2018–19	633 418	60 953 165	71 063 513	77 476	88 497 935	80.3	236

See end notes.

Note: Data are not readily available for missing years.

Source: BITRE (2019d).

Table T 6.4a Activity at major airports—revenue passengers (thousand)

Financial year	Sydney	Mel-bourne	Brisbane	Perth	Adelaide	Gold Coast	Cairns	Canberra	Darwin	Hobart	Town-sville
1985–86	9 498	6 476	3 457	1 939	2 082	778	578	1 008	506	407	1 030
1986–87	10 187	6 776	3 728	2 098	2 083	930	742	1 043	494	420	1 010
1987–88	11 510	7 448	4 325	2 226	2 239	1 120	934	1 117	539	469	1 007
1988–89	12 100	7 743	4 834	2 338	2 290	1 259	1 054	1 089	544	496	908
1989–90	10 108	6 511	3 933	1 999	1 825	659	840	721	455	398	455
1990–91	12 361	8 346	5 246	2 508	2 461	1 090	1 288	1 124	590	496	512
1991–92	15 070	10 196	6 644	3 026	3 006	1 495	1 776	1 361	684	563	482
1992–93	15 486	10 255	6 900	2 997	3 033	1 564	1 948	1 382	706	610	555
1993–94	16 650	10 884	7 493	3 429	3 251	1 711	2 223	1 514	743	707	514
1994–95	18 335	11 992	8 509	3 833	3 500	1 879	2 419	1 679	815	824	577
1995–96	19 878	12 972	9 236	4 145	3 743	1 993	2 595	1 750	850	932	598
1996–97	20 637	13 419	9 683	4 484	3 768	1 937	2 657	1 735	841	984	607
1997–98	21 013	13 791	9 737	4 624	3 949	1 868	2 598	1 825	854	1 011	628
1998–99	21 585	14 131	9 834	4 677	4 046	1 864	2 656	1 821	860	1 028	653
1999–00	23 098	15 146	10 534	4 891	4 186	1 959	2 718	1 969	909	1 057	682
2000–01	25 814	16 881	12 467	5 162	4 443	1 888	2 891	2 107	974	1 078	732
2001–02	23 150	15 967	11 774	4 766	4 175	1 736	2 642	1 841	958	963	696
2002–03	23 447	16 382	11 841	5 189	4 351	2 178	2 900	1 916	1 010	985	778
2003–04	26 090	18 631	13 780	5 889	4 893	2 504	3 222	2 303	1 226	1 073	923
2004–05	27 954	20 274	15 358	6 525	5 363	3 142	3 551	2 479	1 523	1 211	1 055
2005–06	28 996	21 041	16 016	7 005	5 767	3 515	3 731	2 550	1 606	1 219	1 161
2006–07	31 016	22 157	17 380	7 977	6 181	3 778	3 782	2 687	1 629	1 404	1 279
2007–08	32 701	23 943	18 298	8 952	6 619	4 323	3 777	2 853	1 758	1 562	1 366
2008–09	32 346	24 448	18 720	9 359	6 784	4 618	3 654	3 062	1 869	1 539	1 436
2009–10	34 461	25 918	18 897	9 993	7 016	5 186	3 550	3 258	1 856	1 557	1 518
2010–11	35 958	27 963	19 975	10 890	7 279	5 486	3 859	3 241	1 903	1 666	1 630
2011–12	35 987	27 956	20 874	11 997	6 947	5 327	3 943	3 159	1 815	2 045	1 627
2012–13	37 603	29 492	21 145	12 832	7 171	5 805	4 158	3 014	2 027	1 903	1 570
2013–14	38 629	30 896	21 821	12 980	7 577	5 784	4 296	2 858	2 107	2 045	1 523
2014–15	39 022	31 936	21 918	12 730	7 670	5 867	4 391	2 805	2 186	2 057	1 498
2015–16	41 105	33 705	22 320	12 556	7 778	6 273	4 711	2 831	2 313	2 041	1 530
2016–17	42 614	34 878	22 653	12 450	7 999	6 457	4 898	3 013	2 441	2 093	1 535
2017–18	44 035	36 319	23 238	12 419	8 274	6 541	4 969	3 179	2 596	2 030	1 627
2018–19	44 376	37 059	23 626	12 406	8 368	6 415	4 859	3 218	2 726	1 951	1 596

Source: BITRE (2019d).

Table T 6.4b Activity at major airports—aircraft movements

Financial year	Sydney	Mel–bourne	Brisbane	Perth	Adelaide	Gold Coast	Cairns	Canberra	Darwin	Hobart	Town–sville
1985–86	137 898	86 391	51 460	45 124	52 360	12 926	11 358	20 615	12 200	10 781	17 471
1986–87	144 160	88 271	55 946	36 222	50 587	16 715	14 568	21 568	11 728	12 294	17 644
1987–88	152 972	92 487	65 359	32 184	47 688	19 653	17 551	21 642	11 556	12 125	16 482
1988–89	163 946	95 555	70 241	31 799	49 656	22 224	19 694	20 726	10 095	10 794	17 425
1989–90	139 038	79 854	57 931	28 193	41 827	16 540	14 805	15 092	8 445	5 284	10 732
1990–91	165 921	102 204	77 181	35 522	50 315	22 609	25 480	22 432	10 140	7 199	13 732
1991–92	182 968	110 530	94 527	39 472	55 797	26 299	32 547	25 988	10 681	13 162	14 299
1992–93	202 555	119 862	99 854	39 590	58 533	26 358	35 854	29 054	10 929	15 323	14 386
1993–94	206 660	118 507	105 662	44 900	59 633	27 228	38 776	31 275	11 325	17 954	15 137
1994–95	221 208	127 155	116 880	50 002	63 253	26 828	41 903	35 625	12 381	20 663	15 928
1995–96	235 398	132 411	125 827	54 088	66 866	26 446	43 119	37 057	11 230	23 781	17 103
1996–97	243 592	136 339	125 108	57 286	68 970	24 203	44 009	38 173	9 468	24 303	18 035
1997–98	248 791	138 252	125 581	55 893	72 544	22 581	42 152	38 446	8 965	23 729	17 373
1998–99	249 175	141 560	129 230	53 609	73 258	22 260	41 594	38 077	9 697	25 138	17 943
1999–00	255 600	150 657	133 352	55 806	71 543	21 320	41 415	40 941	10 776	22 374	17 994
2000–01	283 408	174 663	151 552	56 176	73 666	20 417	41 859	51 867	15 205	22 126	19 013
2001–02	227 644	147 150	125 469	45 051	66 533	16 153	35 161	39 716	12 266	17 253	12 687
2002–03	225 872	146 751	116 552	47 854	66 231	21 225	38 594	35 986	11 444	17 243	15 208
2003–04	241 787	157 524	123 901	51 283	67 051	20 837	41 965	39 418	12 729	16 508	17 402
2004–05	257 630	176 038	139 984	56 445	70 761	27 728	45 474	38 512	15 889	16 501	20 101
2005–06	258 923	175 435	141 785	57 972	70 829	27 471	46 547	38 182	14 335	16 416	22 156
2006–07	264 401	176 112	144 359	61 659	72 508	27 279	44 952	38 257	13 497	17 981	21 108
2007–08	275 226	186 431	150 895	68 985	74 772	31 691	43 488	41 177	14 488	19 270	20 120
2008–09	271 029	189 011	157 675	78 623	74 654	32 083	39 511	45 191	15 027	22 727	21 044
2009–10	279 356	194 298	157 756	82 349	74 504	35 297	38 958	44 345	15 166	25 973	25 840
2010–11	290 501	206 798	168 342	87 863	76 110	37 737	42 611	43 280	16 064	26 894	29 327
2011–12	291 310	205 916	178 195	93 590	72 259	35 698	43 529	42 938	14 529	26 829	28 110
2012–13	305 006	215 414	188 320	98 974	75 518	39 035	44 914	41 816	16 410	25 823	27 483
2013–14	306 704	222 828	194 681	101 360	76 957	38 829	44 762	40 491	16 363	26 997	26 347
2014–15	306 785	228 434	194 828	96 916	78 068	38 806	44 516	38 789	17 368	26 564	25 554
2015–16	316 466	234 774	192 889	94 693	78 691	41 370	48 464	38 499	18 151	27 123	25 255
2016–17	320 724	236 864	191 162	93 168	78 503	42 572	48 828	38 751	19 023	27 616	25 692
2017–18	320 303	241 685	191 135	92 501	78 139	42 445	47 785	39 747	19 186	26 096	25 495
2018–19	322 513	243 335	192 101	93 061	78 867	40 611	46 228	40 050	19 867	24 993	23 770

See end notes.
Source: BITRE (2019d).

Table T 6.5 Domestic on–time performance [23]

Financial year	Sectors scheduled	Cancellations	Sectors flown	On–time arrivals	On–time departures
		per cent		*per cent*	*per cent*
2006–07	467 907	0.8	463 981	85.6	86.9
2007–08	496 564	1.7	488 112	78.8	80.6
2008–09	502 291	1.7	493 710	79.7	81.1
2009–10	502 106	1.0	497 268	84.4	85.6
2010–11	527 708	1.6	519 255	78.8	80.6
2011–12	530 101	1.5	522 374	80.0	81.4
2012–13	563 636	1.7	554 258	78.8	81.1
2013–14	574 385	1.6	565 077	81.9	83.8
2014–15	573 966	1.4	565 695	85.1	86.5
2015–16	579 884	1.6	570 449	86.1	86.7
2016–17	574 740	1.8	564 479	83.0	83.8
2017–18	562 236	1.7	552 549	81.2	82.0
2018–19	563 834	2.1	552 259	79.4	80.6

See end notes.

Source: BITRE (2019f).

Table T 6.6 BITRE airfare index

Financial year	Business	Economy	Restricted economy	Best discount
	index	*index*	*index*	*index*
1999–00	80.0	81.8		113.8
2000–01	89.0	91.5		100.4
2001–02	92.5	96.0		109.1
2002–03	96.8	97.1	102.7	105.4
2003–04	102.7	100.2	100.1	102.3
2004–05	109.2	106.7	106.8	87.8
2005–06	106.1	112.8	99.7	95.0
2006–07	111.4	120.1	103.6	100.5
2007–08	116.9	112.9	111.3	100.2
2008–09	124.4	104.1	115.9	87.1
2009–10	116.0	108.2	113.2	74.9
2010–11	123.8	114.4	111.9	70.6
2011–12	116.5	131.1	85.0	87.7
2012–13	89.3	154.7	91.5	83.7
2013–14	108.5	157.9	97.0	82.1
2014–15	120.5	*	103.8	81.0
2015–16	126.8	*	108.8	81.6
2016–17	131.9	*	111.4	90.8
2017–18	133.0	*	132.6	93.6
2018–19	129.6	*	146.4	96.5

Note: Data are not readily available for missing years.
Base of index: July 2003 = 100.00.
Airfare Indices are not adjusted by ABS Consumer Price Index.

Source: BITRE (2019c).

* From the middle of February 2015, Qantas Airways ceased offering Full Economy fares for domestic travel. Since the Full Economy fare category was mainly made up of Qantas fares, it is no longer possible to continue producing the index for this fare category. In the future, if Full Economy fares are offered on sufficient routes, the index for this fare category could be reinstated. From November 2017, refunds of Jetstar's Restricted Economy products (Starter with Max) for cancellations are only available in the form of vouchers. Vouchers may only be redeemed for other Jetstar products and are therefore considered by BITRE to be closer to a transfer than a full refund. This change in Jetstar's product now places it outside BITRE's definition of a restricted economy fare, which has resulted in a sharp increase in the restricted economy index for November 2017.

Table T 6.7 Number of Australian registered aircraft, by aircraft type

Date	Aeroplane				Helicopter	Balloon	Glider
	Piston	Turbofan	Turbojet	Turboprop			
14 December 1998	8 244	257	31	519	779	296	1 056
20 December 1999	8 347	268	34	534	870	308	1 063
17 December 2000	8 394	293	34	549	942	323	1 060
17 December 2001	8 440	310	37	553	980	332	1 060
16 December 2002	8 440	303	42	549	1 034	337	1 082
13 December 2003	8 684	308	51	576	1 195	351	1 106
20 December 2004	8 688	308	51	576	1 196	350	1 106
4 December 2005	8 798	323	52	611	1 284	350	1 115
7 November 2006	8 691	337	52	628	1 303	318	1 047
14 December 2007	8 928	370	52	693	1 479	335	1 085
31 December 2008	9 123	426	52	737	1 635	336	1 122
31 December 2009	9 202	458	54	746	1 696	339	1 143
13 December 2010	9 413	516	55	778	1 797	350	1 172
14 December 2011	9 663	559	54	845	1 909	361	1 193
19 November 2012	9 808	579	51	882	2 003	368	1 201
23 December 2013	9 918	611	48	908	2 077	379	1 220
27 October 2014	9 945	617	45	899	2 107	379	1 240
16 October 2015	9 927	620	45	910	2 134	395	1 258
31 December 2016	9 907	615	45	914	2 172	397	1 274
5 December 2017	9 862	629	45	941	2 213	413	1 271
29 November 2018	9 884	649	42	957	2 278	428	1 280

Source: CASA (2019).

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Figure T 7 Principal Australian ports, by commodity

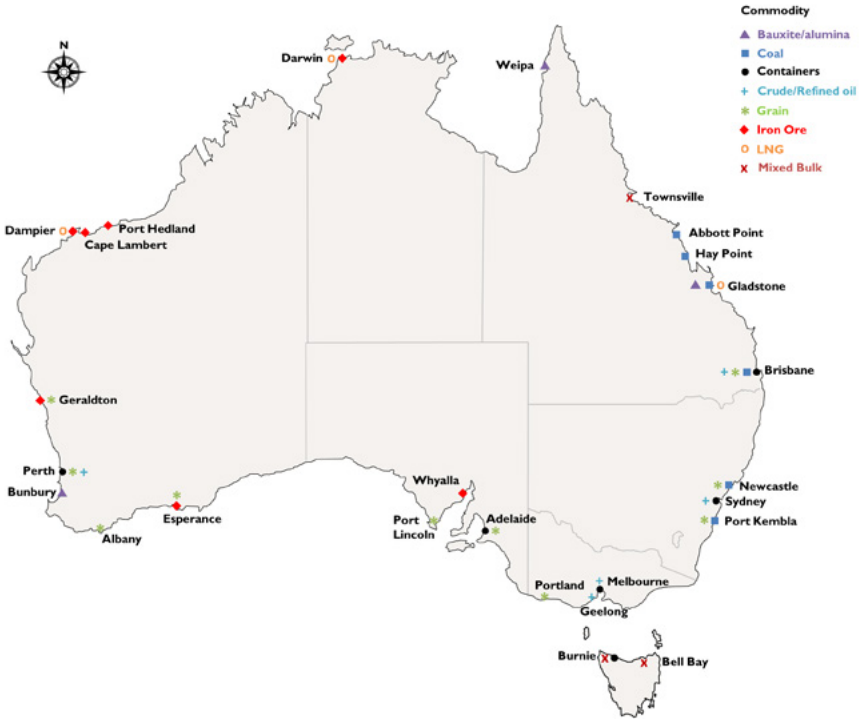


Table T 7.1 Intercapital sea distances

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
				kilometres			
Sydney		1 114	977	1 833	3 991	1 195	4 595
Melbourne			2 042	988	3 111	878	5 661
Brisbane				2 761	4 920	2 120	3 845
Adelaide					2 509	1 436	na
Perth						3 367	3 426
Hobart							5 739

na: not applicable.
Source: BITRE estimates, Australian Chamber of Shipping (1993).

Table T 7.2a Number of cargo ships involved in coastal or international voyages that made port calls, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Other[h]	Total[i]
2000–01	1 511	1 058	2 420	681	2 331	383	284	79	3 165
2001–02	1 520	1 024	2 375	741	2 051	368	267	76	3 136
2002–03	1 563	1 006	2 518	677	2 210	404	305	53	3 187
2003–04	1 618	1 054	2 699	697	2 363	362	284	40	3 443
2004–05	1 623	1 119	2 754	669	2 448	385	319	25	3 546
2005–06	1 583	1 010	2 887	682	2 545	330	312	39	3 433
2006–07	1 724	1 070	3 132	594	2 733	368	330	26	3 792
2007–08	1 784	1 106	3 254	600	2 682	367	351	20	3 842
2008–09	1 826	1 030	3 310	672	2 966	336	354	29	4 040
2009–10	1 855	993	3 432	589	3 036	328	433	5	4 339
2010–11	2 048	1 190	3 346	782	3 397	337	422	0	4 512
2011–12	2 203	1 386	3 566	861	3 853	265	411	2	5 090
2012–13	2 325	1 387	3 685	805	4 075	289	397	0	5 230
2013–14	2 194	1 436	3 762	853	4 333	304	495	0	5 515
2014–15	2 184	1 250	3 768	808	4 232	308	448	0	5 469
2015–16	2 246	1 330	3 969	828	4 254	392	411	1	5 537
2016–17	2 407	1 419	4 052	949	4 483	355	393	0	5 845
2017–18	2 339	1 468	4 482	871	4 517	415	415	1	5 860
2018–19	2 388	1 358	4 614	793	4 649	420	449	1	6 015

[h] "Other" includes state/territory not clearly specified in the source data.
[i] "Total" refers to the number of cargo ships that visited at least one Australian port. The "Total" value is less than the sum of all states/territory values as some cargo ships may visit multiple jurisdictions.
Note: Data may change slightly from year to year due revisions to historical data.
Source: BITRE estimates based on Lloyds List Intelligence data.

Table T 7.2b Number of port calls made by ships involved in coastal or international voyages, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Other[h]	Total
2000–01	3 877	3 707	5 039	1 201	4 309	1 610	642	91	20 476
2001–02	3 755	3 575	5 067	1 271	3 600	1 651	566	88	19 573
2002–03	3 768	3 889	5 488	1 242	3 700	1 951	567	74	20 679
2003–04	3 850	3 818	5 170	1 250	3 942	1 767	542	46	20 385
2004–05	4 077	4 098	5 228	1 194	4 084	2 024	578	28	21 311
2005–06	4 203	4 137	5 814	1 277	4 341	1 957	529	52	22 310
2006–07	4 219	4 211	6 422	1 210	4 662	1 929	579	32	23 264
2007–08	4 457	4 264	6 848	1 254	4 840	1 933	630	24	24 250
2008–09	4 274	3 738	6 449	1 216	5 289	1 738	641	34	23 379
2009–10	4 155	3 495	6 675	1 135	5 381	1 570	723	6	23 140
2010–11	4 528	4 164	6 572	1 376	6 269	1 689	677	0	25 275
2011–12	4 665	4 148	6 812	1 637	7 138	1 399	623	2	26 424
2012–13	5 080	4 226	6 976	1 723	7 961	1 542	694	0	28 202
2013–14	5 062	4 207	7 346	1 790	8 963	1 560	857	0	29 785
2014–15	5 105	3 998	8 092	1 830	9 343	1 575	980	0	30 923
2015–16	4 925	4 204	8 229	1 856	9 699	1 693	895	1	31 502
2016–17	5 120	4 296	8 757	2 136	9 805	1 814	873	0	32 801
2017–18	4 883	4 485	9 768	2 100	9 825	2 062	991	1	34 115
2018–19	4 875	4 289	10 006	2 046	9 840	1 965	1 087	1	34 109

[h] "Other" includes state/territory not clearly specified in the source data.
Note: Data may change slightly from year to year due revisions to historical data.
Source: BITRE estimates based on Lloyds List Intelligence data.

Table T 7.3a Number of ships involved in coastal or international voyages that made port calls, by major ports

Financial year	Melbourne	Brisbane	Sydney	Fremantle	Newcastle	Gladstone	Dampier	Port Hedland
2000–01	587	727	578	678	581	459	477	361
2001–02	589	679	560	669	617	469	240	343
2002–03	575	689	590	702	661	531	254	376
2003–04	613	715	616	712	684	637	394	332
2004–05	672	757	615	716	682	652	406	437
2005–06	597	779	604	686	652	677	460	516
2006–07	697	787	670	744	704	736	512	487
2007–08	654	793	661	708	703	794	530	481
2008–09	652	842	553	836	748	849	622	548
2009–10	634	824	476	809	809	879	647	589
2010–11	688	892	504	795	905	830	733	676
2011–12	827	992	575	905	968	910	708	797
2012–13	838	1005	541	954	1015	947	728	850
2013–14	817	908	519	939	1046	989	746	952
2014–15	734	872	509	829	1042	941	731	982
2015–16	755	894	541	875	1070	1012	722	963
2016–17	811	1025	554	937	1230	1043	719	1044
2017–18	839	1000	514	881	1216	1051	704	1087
2018–19	791	1076	551	978	1241	1145	764	1020

Note: Data may change slightly from year to year due revisions to historical data.
Source: BITRE estimates based on Lloyds List Intelligence data.

Table T 7.3b Number of port calls made by ships involved in coastal or international voyages, by major ports

Financial year	Melbourne	Brisbane	Sydney	Fremantle	Newcastle	Gladstone	Dampier	Port Hedland
2000–01	2 776	2 052	2 053	1 611	1 153	810	950	677
2001–02	2 810	1 954	1 967	1 589	1 184	919	350	617
2002–03	3 037	2 017	1 972	1 527	1 233	1 015	345	672
2003–04	2 901	1 970	2 074	1 548	1 224	1 055	654	541
2004–05	3 191	2 079	2 149	1 447	1 338	1 096	668	800
2005–06	3 296	2 317	2 327	1 460	1 285	1 215	853	883
2006–07	3 386	2 412	2 294	1 565	1 307	1 368	929	879
2007–08	3 390	2 395	2 233	1 594	1 481	1 504	963	953
2008–09	3 032	2 267	1 886	1 688	1 490	1 518	1 185	1 172
2009–10	2 846	2 219	1 608	1 635	1 538	1 495	1 228	1 168
2010–11	3 274	2 381	1 703	1 604	1 774	1 425	1 543	1 312
2011–12	3 238	2 463	1 697	1 700	1 903	1 566	1 589	1 672
2012–13	3 313	2 473	1 781	1 817	2 119	1 634	1 746	1 913
2013–14	3 209	2 482	1 792	1 791	2 282	1 731	1 871	2 383
2014–15	3 109	2 499	1 741	1 635	2 390	1 703	1 874	2 717
2015–16	3 190	2 357	1 726	1 705	2 220	1 917	1 921	2 710
2016–17	3 328	2 730	1 793	1 764	2 322	2 132	1 791	2 869
2017–18	3 422	2 573	1 676	1 724	2 282	2 054	1 699	2 999
2018–19	3 270	2 625	1 743	1 793	2 257	2 164	1 755	2 970

Note: Data may change slightly from year to year due revisions to historical data.
Source: BITRE estimates based on Lloyds List Intelligence data.

Table T 7.4a Cargo loaded (including exports) at Australian ports, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Other	Total
					million tonnes				
1998–99	93.0	20.2	126.1	14.9	207.6	10.3	6.4	1.6	480.2
1999–00	90.6	22.5	141.2	14.2	225.5	11.5	6.2	1.6	513.3
2000–01	95.7	25.3	156.0	15.4	235.7	11.2	6.0	1.7	547.0
2001–02	94.6	23.7	159.5	17.0	238.1	13.5	5.4	1.5	553.4
2002–03	93.2	20.7	166.7	14.7	265.8	13.8	5.8	1.5	582.2
2003–04	98.1	21.6	172.8	15.2	282.2	13.8	6.3	1.4	611.5
2004–05	101.9	21.0	186.2	15.0	318.1	13.3	7.3	1.6	664.3
2005–06	106.7	23.1	186.0	15.6	328.7	12.0	7.6	1.8	681.6
2006–07	106.5	22.0	197.0	14.7	351.9	11.9	10.3	1.8	716.1
2007–08	114.7	20.6	199.5	16.8	386.2	13.1	11.2	2.3	764.5
2008–09	117.1	19.1	205.3	18.3	419.4	11.7	12.7	2.2	805.9
2009–10	125.4	19.2	228.8	19.2	493.9	10.9	15.0	1.9	914.3
2010–11	139.3	21.8	210.0	23.8	511.8	10.5	14.5	1.4	933.2
2011–12	155.8	26.1	218.1	27.6	571.8	8.9	13.8	1.6	1 023.7
2012–13	172.6	25.5	237.5	25.9	634.7	8.2	15.9	0.7	1 121.1
2013–14	180.0	26.3	261.6	32.2	745.6	9.4	18.6	0.0	1 273.8
2014–15	185.7	24.2	276.7	30.6	849.9	9.9	20.3	0.0	1 397.3
2015–16	179.8	23.0	289.6	25.6	897.5	10.9	20.0	0.0	1 446.3
2016–17	185.9	27.0	288.3	27.7	941.0	11.0	21.1	0.0	1 502.0

See end notes.

Note: Small differences exist in historical estimates due to revised coastal freight estimates for some years.

Source: BITRE (2019b).

Table T 7.4b Cargo discharged (including imports) at Australian ports, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Total
				million tonnes				
1998–99	30.7	21.2	27.7	7.2	11.7	4.0	1.9	104.4
1999–00	31.0	20.4	29.7	7.8	12.0	4.5	2.1	107.5
2000–01	30.9	21.2	28.8	7.5	12.0	3.9	2.1	106.5
2001–02	30.7	21.2	29.3	8.4	13.0	6.2	1.9	110.6
2002–03	31.2	22.8	31.8	8.0	14.6	5.6	1.7	115.7
2003–04	32.1	25.9	31.6	6.9	15.0	6.0	1.8	119.3
2004–05	32.5	25.8	34.3	7.3	15.2	6.7	2.2	123.9
2005–06	32.3	26.2	37.4	8.8	14.7	5.2	3.1	127.8
2006–07	34.4	26.9	39.2	7.6	16.8	4.3	6.5	135.8
2007–08	34.4	28.4	39.8	8.2	19.0	5.6	6.6	142.0
2008–09	30.1	26.2	38.5	6.9	18.5	5.4	7.7	133.2
2009–10	34.5	25.7	40.9	7.6	17.9	4.9	6.8	138.4
2010–11	35.1	28.0	41.8	7.6	19.1	5.1	7.4	144.1
2011–12	31.3	28.7	43.3	8.4	20.4	4.8	6.9	143.8
2012–13	30.1	28.4	48.1	8.4	22.1	4.8	7.8	149.8
2013–14	29.7	29.4	47.1	8.7	24.3	4.9	7.4	151.4
2014–15	31.0	29.5	46.3	9.1	22.9	5.2	7.0	151.0
2015–16	32.1	29.5	44.8	8.8	22.7	5.5	7.2	150.7
2016–17	34.0	30.7	44.6	8.9	21.7	5.2	6.1	151.2

See end notes.

Note: Small differences exist in historical estimates due to revised coastal freight estimates for some years.

Source: BITRE (2019b).

Table T 7.5a Cargo loaded (including exports), by selected Australian ports

Financial year	Port Hedland	Dampier	Newcastle	Hay Point	Gladstone	Port Walcott	Weipa	Port Kembla
				million tonnes				
1998–99	66.9	87.2	71.3	53.9	32.5	17.9	10.6	15.4
1999–00	65.0	92.7	68.6	64.1	35.0	26.4	13.3	14.9
2000–01	72.5	90.4	70.6	70.3	41.3	28.7	13.1	17.6
2001–02	72.5	96.4	72.0	70.3	43.2	27.0	12.9	15.3
2002–03	81.6	101.2	74.0	76.3	44.1	39.6	13.2	13.8
2003–04	89.4	101.6	79.6	78.0	48.0	43.9	13.4	12.7
2004–05	107.9	104.2	81.1	84.8	49.7	56.4	15.4	14.6
2005–06	110.2	112.1	83.1	80.3	52.0	55.2	17.8	16.2
2006–07	111.4	128.2	82.8	86.4	58.4	53.9	19.3	16.2
2007–08	129.9	137.9	90.3	80.3	60.4	56.4	22.1	16.6
2008–09	158.0	141.9	92.5	82.0	62.6	56.9	20.5	16.9
2009–10	178.1	169.4	99.8	99.3	67.0	78.7	20.4	18.0
2010–11	197.2	166.7	111.7	87.8	59.5	80.9	22.4	19.6
2011–12	243.8	173.6	126.2	83.3	66.4	81.8	24.9	20.9
2012–13	286.5	181.2	146.3	96.4	65.2	84.8	29.0	18.4
2013–14	366.6	175.7	157.1	108.3	77.1	120.3	30.7	15.7
2014–15	442.0	167.9	162.9	114.9	78.3	157.4	31.8	16.1
2015–16	455.6	169.7	160.7	115.6	92.7	187.7	33.2	12.5
2016–17	493.1	163.1	166.8	106.8	98.6	188.9	35.9	11.4

See end notes.
Source: BITRE (2019b).

Table T 7.5b Cargo discharged (including imports), by selected Australian ports

Financial year	Gladstone	Port Kembla	Geelong	Townsville	Newcastle	Bunbury	Devonport	Dampier
				million tonnes				
1998–99	10.1	8.7	5.9	4.9	6.4	0.8	1.1	0.3
1999–00	10.9	9.4	5.8	4.9	4.3	0.9	1.1	0.4
2000–01	11.0	9.6	6.0	4.7	3.4	1.2	1.2	0.2
2001–02	11.0	9.5	6.3	4.8	3.5	1.1	1.1	0.2
2002–03	10.9	9.7	6.1	5.6	3.1	1.1	1.3	0.7
2003–04	11.5	9.7	6.9	5.3	2.7	1.0	1.3	0.6
2004–05	13.3	9.9	7.3	5.3	2.9	1.2	1.3	0.5
2005–06	15.4	9.1	7.6	5.6	2.7	1.1	1.3	0.6
2006–07	16.1	9.4	6.8	5.2	3.2	1.2	1.0	0.8
2007–08	16.0	9.8	7.1	5.3	3.2	1.5	1.4	1.3
2008–09	16.5	7.1	6.5	4.8	3.1	1.6	1.4	1.3
2009–10	16.7	9.9	6.3	5.9	3.2	1.4	1.4	1.6
2010–11	17.0	10.2	7.4	6.0	3.3	1.6	1.4	1.0
2011–12	17.9	6.5	7.3	6.2	3.6	1.3	1.4	2.2
2012–13	21.0	5.6	7.9	6.7	3.2	1.7	1.4	1.7
2013–14	20.9	5.5	8.5	5.5	3.4	1.8	1.4	1.8
2014–15	21.3	7.1	8.3	5.2	3.9	1.8	1.5	1.5
2015–16	22.6	7.6	7.7	3.8	4.1	1.8	1.5	1.5
2016–17	23.1	8.2	8.0	2.0	4.8	1.8	1.5	0.9

See end notes.
Source: BITRE (2019b).

Table T 7.6a Cargo loaded (including exports), by capital city ports

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
				million tonnes			
1997–98	5.1	9.8	9.7	4.0	13.3	0.6	0.9
1998–99	4.3	9.5	9.7	4.2	12.9	0.7	0.7
1999–00	5.1	10.5	10.7	4.6	12.9	0.9	0.6
2000–01	5.8	11.1	11.4	5.3	12.5	0.6	0.4
2001–02	5.7	11.9	11.6	6.0	12.1	1.6	0.3
2002–03	4.7	10.8	11.0	5.3	12.9	1.3	0.4
2003–04	5.0	11.4	10.8	4.7	14.2	1.4	0.8
2004–05	5.1	11.8	11.5	4.5	14.2	1.8	1.1
2005–06	6.2	12.8	12.1	5.1	14.3	1.5	1.4
2006–07	6.2	11.3	11.6	4.4	12.6	1.5	3.9
2007–08	6.7	11.5	13.4	4.4	12.8	1.8	4.6
2008–09	6.5	12.2	15.3	4.2	15.6	1.6	6.1
2009–10	6.3	12.3	15.3	4.7	15.4	1.2	6.4
2010–11	6.8	13.4	15.4	6.8	13.0	1.3	6.2
2011–12	7.5	15.1	19.2	9.2	14.3	0.9	5.5
2012–13	6.9	14.9	19.4	8.3	18.1	0.7	6.7
2013–14	6.4	15.0	17.0	8.9	19.3	0.7	7.0
2014–15	5.9	14.1	16.0	7.1	20.6	0.6	5.6
2015–16	6.1	13.3	13.6	6.7	20.1	0.8	4.8
2016–17	7.0	14.9	15.2	8.5	20.8	0.7	4.1

See end notes.
Source: BITRE (2019b).

Table T 7.6b Cargo discharged (including imports), by capital city ports

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
				million tonnes			
1997–98	16.0	10.8	11.4	6.3	9.2	1.1	0.8
1998–99	15.6	12.6	11.1	5.4	9.2	0.8	0.9
1999–00	17.3	12.4	12.3	5.9	9.1	0.9	1.0
2000–01	17.9	11.6	11.4	5.8	9.0	0.5	1.0
2001–02	17.6	12.4	11.7	6.2	10.1	1.1	0.8
2002–03	18.4	14.2	13.4	5.9	11.4	1.0	0.7
2003–04	19.7	15.4	13.1	4.9	11.6	1.0	1.0
2004–05	19.6	16.2	13.9	5.1	12.0	1.1	1.4
2005–06	20.5	16.2	14.4	6.4	11.1	1.1	2.1
2006–07	21.8	17.7	16.2	5.3	12.4	1.1	5.3
2007–08	21.4	18.8	16.4	6.0	13.6	1.2	5.4
2008–09	19.9	17.3	16.0	5.0	12.5	1.1	6.2
2009–10	21.3	17.3	16.6	5.6	12.1	1.0	5.3
2010–11	21.5	18.4	17.2	5.7	13.0	1.1	6.1
2011–12	21.2	19.3	17.4	6.3	13.7	0.9	5.4
2012–13	21.3	19.0	18.3	6.4	13.9	1.0	6.3
2013–14	20.7	19.3	18.2	6.6	14.4	0.9	6.5
2014–15	20.0	19.4	17.9	7.2	15.2	1.0	6.9
2015–16	20.4	19.8	16.1	6.8	14.8	1.2	7.1
2016–17	21.0	20.9	17.2	7.1	14.6	0.9	6.0

See end notes.
Source: BITRE (2019b).

Table T 7.7 Containers exchanged, selected Australian ports

Financial year	Melbourne	Sydney	Brisbane	Fremantle	Adelaide	Five ports
	twenty foot equivalent units (TEU) exchanged					
1996–97	984 394	730 446	272 632	209 564	88 497	2 285 533
1997–98	1 040 810	798 209	317 568	250 802	107 912	2 515 301
1998–99	1 121 161	878 580	357 703	275 697	120 586	2 753 727
1999–00	1 287 795	1 010 509	414 449	297 363	115 506	3 125 622
2000–01	1 316 665	988 967	453 257	354 144	133 236	3 246 269
2001–02	1 420 781	1 009 453	481 623	381 809	145 226	3 438 892
2002–03	1 593 798	1 160 513	570 204	431 342	148 333	3 904 190
2003–04	1 717 718	1 270 256	639 272	457 305	169 108	4 253 659
2004–05	1 910 441	1 375 610	726 147	467 313	170 585	4 650 096
2005–06	1 929 925	1 445 465	766 278	455 428	189 391	4 786 487
2006–07	2 093 611	1 620 121	875 045	505 082	219 117	5 312 976
2007–08	2 256 644	1 778 425	940 760	573 527	280 121	5 829 477
2008–09	2 157 352	1 783 920	896 167	565 491	276 545	5 679 475
2009–10	2 236 635	1 927 520	919 242	557 039	274 501	5 768 095
2010–11	2 392 974	2 020 151	978 815	598 250	297 701	6 137 455
2011–12	2 579 098	2 036 064	1 025 069	656 918	323 834	6 620 983
2012–13	2 512 926	2 126 284	1 069 881	670 296	339 061	6 718 448
2013–14	2 532 669	2 206 401	1 097 365	703 081	382 681	6 922 197
2014–15	2 578 839	2 289 673	1 138 706	743 562	365 874	7 116 654
2015–16	2 638 536	2 323 722	1 147 173	715 107	389 684	7 214 222
2016–17	2 697 068	2 431 013	1 224 829	715 933	395 276	7 464 119
2017–18	2 929 338	2 613 361	1 349 176	768 246	407 059	8 067 180

Source: BITRE (2018j) and BITRE estimates.

Table T 7.8a Summary of the Australian trading fleet—number of vessels

Financial year	Vessel capacity		Total Australian trading fleet	Flag	
	Major trading fleet (greater than 2000 dwt)	Other (minor) trading ships (greater than 150 gross registered tonnage and less than or equal to 2000 dwt)		Total Australian registered	Total overseas registered
2003–04	89	26	115	60	55
2004–05	86	21	107	58	49
2005–06	82	23	105	59	46
2006–07	86	24	110	59	51
2007–08	91	20	111	55	56
2008–09	89	22	111	56	55
2009–10	94	27	121	57	64
2010–11	94	36	130	65	65
2011–12	86	42	128	65	63
2012–13	85	45	130	67	63
2013–14	83	49	132	70	62
2014–15	85	49	134	69	65
2015–16	83	53	136	73	63
2016–17	93	50	143	70	73

Note: Historical vessel list data are reviewed by BITRE each year as new information becomes available. This sometimes results in revisions to historical data.

Source: BITRE (2019b).

Table T 7.8b Summary of the Australian trading fleet—deadweight (tonnes)

Financial year	Vessel capacity		Total Australian trading fleet	Flag	
	Major trading fleet (greater than 2000 dwt)	Other (minor) trading ships (greater than 150 gross registered tonnage and less than or equal to 2000 dwt)		Total Australian registered	Total overseas registered
2003–04	3 731 527	15 212	3 746 739	1 607 609	2 139 130
2004–05	3 302 358	12 917	3 315 275	1 464 396	1 850 879
2005–06	3 026 081	14 576	3 040 657	1 370 386	1 670 271
2006–07	3 308 506	15 646	3 324 152	1 373 446	1 950 706
2007–08	3 560 906	15 515	3 576 421	1 235 915	2 340 506
2008–09	3 343 806	13 246	3 357 052	1 164 046	2 193 006
2009–10	3 795 476	19 750	3 815 226	1 241 264	2 573 962
2010–11	3 572 276	25 624	3 597 900	1 055 472	2 542 428
2011–12	3 531 359	32 015	3 563 374	907 568	2 655 806
2012–13	4 436 384	37 766	4 474 150	665 787	3 808 363
2013–14	4 366 020	40 502	4 406 522	560 139	3 846 383
2014–15	4 866 336	43 123	4 909 459	548 816	4 360 643
2015–16	5 218 282	45 756	5 264 038	512 455	4 751 583
2016–17	6 415 156	41 714	6 456 870	531 415	5 925 455

Source: BITRE (2019b).

Table T 7.8c Summary of the Australian trading fleet—gross tonnage (tonnes)

Financial year	Vessel capacity		Total Australian trading fleet	Flag	
	Major trading fleet (greater than 2000 dwt)	Other (minor) trading ships (greater than 150 gross registered tonnage and less than or equal to 2000 dwt)		Total Australian registered	Total overseas registered
2003-04	2 703 809	36 736	2 740 545	1 379 775	1 360 770
2004-05	2 446 408	25 250	2 471 658	1 307 557	1 164 101
2005-06	2 346 281	22 776	2 369 057	1 253 895	1 115 162
2006-07	2 543 670	25 329	2 568 999	1 232 529	1 336 470
2007-08	2 739 770	24 529	2 764 299	1 146 529	1 617 770
2008-09	2 673 070	29 329	2 702 399	1 100 229	1 602 170
2009-10	3 027 360	30 580	3 057 940	1 129 020	1 928 920
2010-11	2 934 114	29 265	2 963 379	1 028 732	1 934 647
2011-12	2 888 230	39 953	2 928 183	931 167	1 997 016
2012-13	3 329 376	45 347	3 374 723	805 098	2 569 625
2013-14	3 388 538	48 170	3 436 708	748 628	2 688 080
2014-15	3 648 996	41 846	3 690 842	724 468	2 966 374
2015-16	3 803 149	44 063	3 847 212	701 901	3 145 311
2016-17	4 660 523	43 714	4 704 237	729 464	3 974 773

Source: BITRE (2019b).

Table T 7.8d Summary of the Australian trading fleet—age distribution (percentage of total deadweight (tonnes))

Financial year	0–4 years	5–9 years	10–14 years	15–19 years	20+ years	Average age (years)
2003–04	9.3	21.8	24.7	25.8	18.4	14.8
2004–05	3.1	31.6	22.7	15.3	27.2	16.0
2005–06	3.4	16.9	37.3	15.5	26.9	17.2
2006–07	3.3	10.2	25.4	35.3	26.0	18.0
2007–08	15.7	7.9	21.8	35.5	19.0	16.7
2008–09	20.9	10.1	22.4	23.1	23.6	16.7
2009–10	22.9	4.5	24.0	23.7	24.9	16.8
2010–11	25.6	5.7	13.5	32.0	23.2	16.3
2011–12	23.3	7.6	15.3	19.0	34.8	15.4
2012–13	22.5	24.0	14.9	10.6	28.1	13.6
2013–14	15.7	33.3	15.1	11.8	24.0	13.7
2014–15	19.9	35.6	9.5	14.1	20.8	13.0
2015–16	27.0	45.2	7.0	1.9	18.9	12.4
2016–17	25.0	42.7	12.6	7.0	12.8	13.1

Source: BITRE (2019b).

Table T 7.9a Ships in the major trading fleet—overseas trades, 2016–17—tankers

		Ports called at	
Name	Products	Australian	Overseas
Alexander Spirit	Petroleum products	Brisbane, Cairns, Gladstone, Mackay, Sydney, Townsville	JPN, KOR, SGP
Astrid	LPG	Hastings	MUS, NCL
Dapeng Moon	LNG	Dampier	CHN
Dapeng Star	LNG	Dampier	CHN
Dapeng Sun	LNG	Dampier	CHN
Kakariki	Petroleum products	Sydney	NZL
Maea	LPG	Hastings, Melbourne, Sydney	ASM, COK, FJI, NCL, NFK, NZL, PYF, TON
Methane Rita Andrea	LNG	Gladstone	JPN, TWN
Northwest Sanderling	LNG	Dampier	JPN
Northwest Sandpiper	LNG	Dampier	JPN
Northwest Seaeagle	LNG	Dampier	JPN
Northwest Shearwater	LNG	Dampier	JPN, MYS, SGP
Northwest Snipe	LNG	Dampier	JPN
Northwest Stormpetrel	LNG	Dampier	JPN, SGP
Northwest Swan	LNG	Dampier	JPN, SGP
Torea	Liquid chemicals	Brisbane, Sydney	NZL, SGP
Victoire	LPG	Brisbane, Hastings, Port Kembla, Sydney	FJI, NCL, NZL, PYF
Woodside Chaney	LNG	Dampier, Gladstone, Various Offshore Facilities WA	CHN, IND, JPN, KOR, SGP
Woodside Rees Withers	LNG	Dampier, Gladstone, Various Offshore Facilities WA	JPN, KOR, SGP

Source: BITRE (2019b).

Table T 7.9b Ships in the major trading fleet—overseas trades, 2016–17—bulk carriers

		Ports called at	
Name	Products	Australian	Overseas
Angel	Dry bulk	Gladstone, Port Hedland	CHN, JPN
FMG Cloudbreak	Iron ore	Port Hedland	CHN, RUS, SGP
FMG Grace	Iron ore	Port Hedland	CHN, SGP
FMG Grace; Mineral Charlie	Iron ore	Port Hedland	CHN, SGP
FMG Nicola	Iron ore	Port Hedland	CHN, SGP
FMG Sophia	Iron ore	Port Hedland	CHN
FMG Sydney	Iron ore	Port Hedland	CHN
Frontier	Dry bulk	Gladstone	KOR
Maka Franz	Dry bulk	Hay Point, Newcastle, Port Walcott	CHN, GBR, JPN, THA
Minnehaha	Dry bulk	Abbot Point, Newcastle, Port Hedland	CHN, GBR, JPN
Minnetonka	Dry bulk	Dampier, Gladstone, Port Hedland	CHN
Proud	Dry bulk	Hay Point, Port Hedland	CHN, SGP
RS Iron Range	Dry bulk	Gladstone, Port Hedland	CHN, SGP
Scope	Dry bulk	Hay Point, Port Hedland	CHN, JPN, SGP
Silver Surfer	Dry bulk	Dampier, Port Hedland	CHN, SGP, TWN
Voyageurs	Coal	Hay Point	ESP, KOR

Source: BITRE (2019b).

Table T 7.9c Ships in the major trading fleet—overseas trades, 2016–17—container carriers

		Ports called at	
Name	Products	Australian	Overseas
Acrux N.	General cargo	Townsville	IDN, PNG
ANL Barega	General cargo	Melbourne, Sydney	NZL
ANL Barwon; TRF Pescara	General cargo	Melbourne, Sydney	NZL
ANL Echuca	General cargo	Melbourne, Sydney	NZL
ANL Elanora	General cargo	Melbourne, Sydney	NZL
ANL Wahroonga	General cargo	Brisbane, Melbourne, Sydney	CHN
ANL Wangaratta	General cargo	Brisbane, Melbourne, Sydney	JPN, TWN
ANL Warragul	General cargo	Brisbane, Melbourne, Sydney	JPN, TWN
ANL Warrnambool	General cargo	Brisbane	MYS, NZL, SGP
ANL Wyong	General cargo	Brisbane, Melbourne, Sydney	JPN, TWN
OOCL Brisbane	General cargo	Adelaide, Fremantle, Melbourne	MYS, SGP

Source: BITRE (2019b).

Table T 7.9d Ships in the major trading fleet—overseas trades, 2016–17—livestock carriers

		Ports called at	
Name	Products	Australian	Overseas
Bader III	Livestock	Fremantle	DJI, YEM
Bahijah; Ocean Outback	Livestock	Darwin, Fremantle, Portland, Townsville	CHN, IDN, ISR, OMN, SGP, VNM
Devon Express	Livestock	Brisbane, Darwin, Townsville, Wyndham	IDN, JPN, PHL, SGP
Maysora	Livestock	Adelaide, Fremantle	ARE, EGY, SAU
Nine Eagle	Livestock	Darwin, Townsville	IDN, PHL, VNM
Ocean Shearer	Livestock	Fremantle	EGY, URY
Ocean Swagman	Livestock	Darwin, Fremantle, Townsville	IDN, KWT, SGP, VNM

Source: BITRE (2019b).

Table T 7.9e Ships in the major trading fleet—overseas trades, 2016–17—general cargo ships

		Ports called at	
Name	Products	Australian	Overseas
ANL Darwin Trader	General cargo	Darwin	SGP
Capitaine Quiros	General cargo	Brisbane	FJI, MYS, NRU
Eggella; Pacific Venture	General cargo	Brisbane, Geelong, Melbourne	CHN, FJI, PRK
Pioneer	General cargo	Mackay, Sydney	SGP

Source: BITRE (2019b).

Table T 7.10a Ships in the major trading fleet—coastal trades, 2016–17—tankers

		Ports called at	
Name	Products	Australian	Overseas
Gas Defiance	LPG	Brisbane, Cairns, Devonport, Gladstone, Hobart, Port Kembla, Sydney, Townsville	NZL, PNG
Gas Shuriken	LPG	Brisbane, Cairns, Devonport, Gladstone, Hastings, Hobart, Port Kembla, Sydney, Townsville	NZL, PNG, SLB
ICS Allegiance	Petroleum products	Geelong, Melbourne, Port Kembla, Sydney	
ICS Reliance	Petroleum products	Geelong, Melbourne, Sydney	
Larcom	Bunker fuel	Gladstone	
Verige	Liquid bulk	Brisbane, Gladstone, Townsville	KOR, PAN

Source: BITRE (2019b).

Table T 7.10b Ships in the major trading fleet—coastal trades, 2016–17—bulk carriers

		Ports called at	
Name	Products	Australian	Overseas
Aburri	Metal concentrates	Bing Bong	
Adelie; CSL Brisbane	Dolomite, gypsum, mineral sands	Abbot Point, Adelaide, Brisbane, Fremantle, Geraldton, Melbourne, Port Kembla, Portland, Sydney, Thevenard, Whyalla	JPN, SGP
Barwon	Bauxite	Brisbane, Gladstone, Gove, Newcastle, Port Hedland, Weipa	CHN, JPN
CSL Reliance	Gypsum, sugar	Adelaide, Ardrossan, Brisbane, Mackay, Melbourne, Sydney, Thevenard	CHN
CSL Thevenard	Cement, gypsum	Adelaide, Ardrossan, Brisbane, Geelong, Gladstone, Melbourne, Port Kembla, Sydney, Thevenard	CHN, TWN
CSL Whyalla	Iron ore	Dampier, Exmouth, Fremantle, Geraldton, Other Ports WA, Port Pirie, Portland, Thevenard, Whyalla	
Donnacona	Iron ore	Fremantle, Geraldton, Other Ports WA, Port Hedland, Portland, Thevenard	CHN
Goliath	Cement	Adelaide, Devonport, Melbourne, Newcastle	KOR
Iron Chieftain	Coal, dolomite	Ardrossan, Gladstone, Newcastle, Port Kembla, Whyalla	
Lowlands Brilliance	Iron ore	Hay Point, Port Hedland, Port Kembla	CHN, SGP
Mariloula	Iron ore	Fremantle, Hay Point, Port Hedland, Port Kembla	CHN
RTM Gladstone	Bauxite	Brisbane, Gladstone, Weipa	CHN
RTM Piiramu	Bauxite	Brisbane, Gladstone, Gove, Weipa	
RTM Twarra	Bauxite	Brisbane, Gladstone, Gove, Weipa	CHN
RTM Wakmatha	Bauxite	Brisbane, Gladstone, Gove, Weipa	CHN
RTM Weipa	Bauxite	Brisbane, Cairns, Gladstone, Gove, Weipa	
Stadacona	Cement, clinker, gypsum	Adelaide, Brisbane, Gladstone, Melbourne, Port Kembla, Portland, Sydney, Thevenard	TWN
Yarra	Bauxite	Gladstone, Gove, Newcastle, Port Hedland, Weipa	CHN, PHL, TWN

Source: BITRE (2019b).

Table T 7.10c Ships in the major trading fleet—coastal trades, 2016–17—general cargo

		Ports called at	
Name	Products	Australian	Overseas
Accolade II	Limestone	Adelaide, Klein Point	
Aurora Australis	General cargo	Hobart	
ICS Silver Lining	Dry bulk	Bell Bay, Burnie, Hobart, Melbourne, Newcastle, Port Kembla, Port Pirie, Sydney, Whyalla	
Newcastle Bay	General cargo	Cairns, Other Ports Qld, Thursday Island, Weipa	
Searoad Mersey II	Ro-Ro, general cargo	Devonport, Fremantle, Melbourne, Sydney	
Searoad Tamar	Ro-Ro, general cargo	Devonport, Fremantle, Melbourne	
Spirit of Tasmania I	Ro-Ro, general cargo	Devonport, Melbourne	
Spirit of Tasmania II	Ro-Ro, general cargo	Devonport, Melbourne, Sydney	
Tasmanian Achiever	Ro-Ro, general cargo	Burnie, Melbourne	
Trinity Bay	General cargo	Cairns, Other Ports Qld, Thursday Island	
Victorian Reliance	Ro-Ro, general cargo	Burnie, Melbourne	

Source: BITRE (2019b).

Table T 7.10d Ships in the major trading fleet—coastal trades, 2016–17—container carriers

		Ports called at	
Name	Products	Australian	Overseas
ANL Woomera	General cargo	Adelaide, Fremantle, Melbourne, Sydney	MYS, SGP

Source: BITRE (2019b).

CHAPTER 8
Safety

Table T 8.1a Number of fatal crashes, by transport mode

Calendar year	Road	Rail	Marine	Aviation
1976				27
1977				31
1978				34
1979				31
1980				32
1981				27
1982				35
1983				30
1984				32
1985				29
1986				29
1987				25
1988				35
1989	2 407			46
1990	2 050			44
1991	1 874			28
1992	1 736			38
1993	1 737			30
1994	1 702			35
1995	1 822			33
1996	1 768			29
1997	1 601			25
1998	1 573			31
1999	1 553			25
2000	1 628			24
2001	1 584		32	27
2002	1 525		40	19
2003	1 445		39	21
2004	1 444		44	21
2005	1 472		37	24
2006	1 452		40	24
2007	1 453		41	30
2008	1 315		37	27
2009	1 346		43	23
2010	1 230		2	19
2011	1 151		6	25
2012	1 190		6	27
2013	1 099		6	33
2014	1 050		3	20
2015	1 101		2	27
2016	1 202		2	15
2017	1 127		4	22
2018	1 056		2	17

[k] Marine accidents data from 2010 onwards were compiled using a different methodology and should not be compared with earlier results.

Note: Data are not readily available for missing years.
Road fatal accidents are defined as fatal crashes.

Source: ATSB (2019a), ATSB (2019b), BITRE (2019a), BITRE (2019k) and NMSC (2010).

Table T 8.1b Number of fatalities, by transport mode

Calendar year	Road	Rail	Marine	Aviation
1976	3 583			58
1977	3 578			55
1978	3 705			65
1979	3 508	49		45
1980	3 272	56		64
1981	3 321	72		58
1982	3 252	72		60
1983	2 755	66		54
1984	2 822	76		48
1985	2 941	66		54
1986	2 888	66		54
1987	2 772	54		39
1988	2 887	64		67
1989	2 800	67		82
1990	2 331	76		80
1991	2 113	42		52
1992	1 974	61		63
1993	1 953	52		56
1994	1 928	43		62
1995	2 017	46		51
1996	1 970	30		51
1997	1 767	43		38
1998	1 755	43		56
1999	1 764	43		46
2000	1 817	38		44
2001	1 737	53	47	46
2002	1 715	40	50	34
2003	1 621	33	43	44
2004	1 583	33	50	34
2005	1 627	35	41	45
2006	1 598	39	49	40
2007	1 603	42	53	44
2008	1 437	31	41	43
2009	1 490	28	53	25
2010	1 350	29	2	24
2011	1 277	33	6	39
2012	1 299	20	6	39
2013	1 185	7	6	46
2014	1 150		4	28
2015	1 205		2	31
2016	1 295		5	21
2017	1 223		5	40
2018	1 136	9	2	20

Note: Data are not readily available for missing years.

[j] Rail fatality and serious injury data from 2012 onwards excludes suspected suicide and trespass occurrences. They were compiled using new methodology and should not be compared with earlier results.

[k] Marine fatalities data from 2010 onwards were compiled using a different methodology and should not be compared with earlier results.

Source: ATSB (2019a), ATSB (2019b), BITRE (2019a), BITRE (2019k) and NMSC (2010), ONSR (2019).

Table T 8.2a Fatality rate, by transport mode (per 100,000 population)

Calendar year	Road	Rail	Marine	Aviation
	deaths per 100 000 population			
1976	25.53			0.41
1977	25.21			0.39
1978	25.80			0.45
1979	24.17	0.34		0.31
1980	22.27	0.38		0.44
1981	22.25	0.48		0.39
1982	21.42	0.47		0.40
1983	17.90	0.43		0.35
1984	18.11	0.49		0.31
1985	18.63	0.42		0.34
1986	18.03	0.41		0.34
1987	17.04	0.33		0.24
1988	17.46	0.39		0.41
1989	16.65	0.40		0.49
1990	13.66	0.45		0.47
1991	12.23	0.24		0.30
1992	11.28	0.35		0.36
1993	11.05	0.29		0.32
1994	10.80	0.24		0.35
1995	11.16	0.25		0.28
1996	10.76	0.16		0.28
1997	9.54	0.23		0.21
1998	9.38	0.23		0.30
1999	9.32	0.23		0.24
2000	9.49	0.20		0.23
2001	8.95	0.27	0.24	0.24
2002	8.73	0.20	0.25	0.17
2003	8.22	0.17	0.22	0.22
2004	7.94	0.17	0.25	0.17
2005	8.06	0.17	0.20	0.22
2006	7.81	0.19	0.24	0.20
2007	7.70	0.20	0.25	0.21
2008	6.76	0.15	0.19	0.20
2009	6.87	0.13	0.24	0.12
2010	6.13	0.13	0.01	0.11
2011	5.72	0.15	0.03	0.17
2012	5.72	0.09	0.03	0.17
2013	5.13	0.03	0.03	0.20
2014	4.90		0.02	0.12
2015	5.07		0.01	0.13
2016	5.35		0.02	0.09
2017	4.97		0.02	0.16
2018	4.55	0.04	0.01	0.08

[i] Rail fatality and serious injury data from 2012 onwards excludes suspected suicide and trespass occurrences. They were compiled using new methodology and should not be compared with earlier results.

[k] Marine fatalities data from 2010 onwards were compiled using a different methodology and should not be compared with earlier results.

Note: Data are not readily available for missing years.

Source: ABS (2019q), ATSB (2019a), ATSB (2019b), BITRE (2019a), BITRE (2019k), NMSC (2010) and ONRSR (2019).

Table T 8.2b Injury rate, by transport mode (per 100,000 population)

Calendar year	Road	Rail	Marine	Aviation
	serious injuries per 100 000 population			
1976				0.16
1977				0.19
1978				0.34
1979				0.35
1980				0.33
1981				0.34
1982				0.27
1983				0.32
1984				0.28
1985				0.29
1986				0.23
1987				0.22
1988				0.21
1989	169.40			0.34
1990	146.27			0.26
1991	130.34			0.43
1992	122.96			0.35
1993	122.02			0.22
1994	123.98			0.21
1995	123.79			0.32
1996	120.11			0.17
1997	116.23			0.26
1998				0.18
1999				0.15
2000	140.79			0.11
2001	141.58	0.43	0.45	0.10
2002	142.29	0.50	0.59	0.21
2003	144.26	0.26	0.40	0.16
2004	144.93	0.35	0.62	0.13
2005	151.66	0.35	0.67	0.13
2006	157.90	0.65	0.78	0.11
2007	156.31	0.87	0.61	0.03
2008	157.79	0.53	0.72	0.07
2009	155.34	0.41	0.45	0.08
2010	148.78	0.18	0.11	0.19
2011	152.58	0.30	0.11	0.09
2012	150.01	0.33	0.13	0.14
2013	151.68	0.21	0.10	0.16
2014	151.56		0.16	0.16
2015	155.89		0.14	0.08
2016	160.89		0.07	0.14
2017			0.07	0.13
2018			0.09	0.14

See end notes.

[j] Rail fatality and serious injury data from 2012 onwards excludes suspected suicide and trespass occurrences. They were compiled using new methodology and should not be compared with earlier results.

[k] Marine fatalities data from 2010 onwards were compiled using a different methodology and should not be compared with earlier results.

Note: Data are not readily available for missing years.

Hospital injury series contains a break at 2012 due to changes in admission criteria in one jurisdiction.

Data for Hospitalised Injuries on roads have been revised. Minor injuries are excluded.

A hospitalised injury is defined as a person admitted to hospital.

Source: ABS (2019q), ATSB (2019a), ATSB (2019b), Infrastructure (2012), NMSC (2010) and ONRSR (2019).

Table T 8.3a Fatality rate, by transport mode (per billion passenger km travelled)

Calendar year	Road	Rail	Aviation
	deaths per billion passenger km travelled		
1976	28.06		7.00
1977	26.89		6.76
1978	26.80		7.70
1979	24.62	5.71	4.92
1980	22.62	6.47	6.48
1981	22.74	8.03	5.51
1982	21.58	7.91	5.49
1983	17.83	7.33	5.04
1984	17.82	8.55	4.59
1985	17.84	7.47	4.92
1986	16.94	7.31	4.56
1987	15.85	5.76	3.06
1988	15.94	6.57	4.85
1989	14.74	6.63	5.55
1990	11.82	7.51	6.08
1991	10.55	4.18	3.82
1992	9.75	6.09	3.43
1993	9.40	5.28	2.68
1994	9.03	4.36	2.73
1995	9.19	4.53	1.98
1996	8.78	2.85	1.82
1997	7.79	3.97	1.29
1998	7.67	3.92	1.85
1999	7.58	3.89	1.50
2000	7.65	3.35	1.38
2001	7.28	4.47	1.34
2002	7.14	3.31	0.99
2003	6.58	2.75	1.28
2004	6.20	2.74	0.88
2005	6.22	2.90	1.03
2006	6.15	3.16	0.85
2007	6.19	3.26	0.87
2008	5.50	2.26	0.78
2009	5.70	1.91	0.43
2010	5.16	1.93	0.40
2011	4.85	2.18	0.63
2012	4.88	1.30	0.60
2013	4.42	0.45	0.68
2014	4.23		0.40
2015	4.36		0.44
2016	4.59		0.30
2017	4.25		0.56
2018	3.91	0.52	0.27

[i] Rail fatality and serious injury data from 2012 onwards excludes suspected suicide and trespass occurrences. They were compiled using new methodology and should not be compared with earlier results.

Note: Data are not readily available for missing years.

Source: ATSB (2012), ATSB (2019a), BITRE (2019a), BITRE (2019k) and BITRE estimates.

Table T 8.3b Injury rate, by transport mode (per billion passenger km travelled)

Calendar year	Road Hospitalised injury Rate	Rail	Aviation
	serious injuries per billion passenger km travelled		
1975			3.26
1976			6.02
1977			6.04
1978			5.36
1979			5.06
1980			3.89
1981			4.48
1982			4.02
1983			4.31
1984			3.37
1985			3.04
1986			2.75
1987			4.20
1988			2.98
1989	144.42		5.70
1990	124.64		4.48
1991	111.25		2.13
1992	103.59		1.82
1993	100.98		2.55
1994	100.83		1.21
1995	99.66		1.72
1996	96.94		1.12
1997	94.06		0.96
1998			0.72
1999			0.63
2000	113.06		1.23
2001	114.43	6.87	0.90
2002	113.51	8.16	0.76
2003	111.37	4.23	0.68
2004	110.37	5.88	0.53
2005	117.85	5.84	0.15
2006	124.75	10.46	0.29
2007	124.65	13.31	0.31
2008	128.30	7.79	0.72
2009	128.86	6.07	0.35
2010	124.36	2.51	0.51
2011	128.12	4.28	0.58
2012	127.01		0.56
2013	129.10		0.27
2014	128.75		0.50
2015	131.42		0.45
2016	135.24		0.49
2017			0.45
2018		4.09	0.53

See end notes.

Note: Data for Hospitalised Injuries on roads have been revised. Minor injuries are excluded.
A hospitalised injury is a person admitted to hospital.
Data are not readily available for missing years.
i Rail fatality and serious injury data from 2012 onwards excludes suspected suicide and trespass occurrences. They were compiled using new methodology and should not be compared with earlier results.

Source: AIHW (2016), ATSB (2012), ATSB (2019a), BITRE (2019a), BITRE (2019k), Infrastructure (2012) and BITRE estimates.

Table T 8.4a Number of road crashes, by accident severity

Calendar year	Fatal	Hospitalised injury crash
1989	2 407	22 158
1990	2 050	20 014
1991	1 874	17 844
1992	1 736	17 108
1993	1 737	17 164
1994	1 702	17 560
1995	1 822	17 803
1996	1 768	17 505
1997	1 601	17 150
1998	1 573	
1999	1 553	
2000	1 628	
2001	1 584	
2002	1 525	
2003	1 445	
2004	1 444	
2005	1 472	
2006	1 452	
2007	1 453	
2008	1 315	
2009	1 346	
2010	1 230	
2011	1 151	
2012	1 190	
2013	1 099	
2014	1 050	
2015	1 101	
2016	1 202	
2017	1 127	
2018	1 056	

See end notes.

Note: Data are not readily available for missing years.
Hospitalised Injury crash data excludes all fatal crashes.

Source: BITRE (2019a) and Infrastructure (2012).

Table T 8.4b Number of road casualties, by severity

Calendar year	Fatal	Hospitalised injury
1974	3 572	
1975	3 694	
1976	3 583	
1977	3 578	
1978	3 705	
1979	3 508	
1980	3 272	
1981	3 321	
1982	3 252	
1983	2 755	
1984	2 822	
1985	2 941	
1986	2 888	
1987	2 772	
1988	2 887	
1989	2 800	28 483
1990	2 331	24 961
1991	2 113	22 528
1992	1 974	21 512
1993	1 953	21 557
1994	1 928	22 133
1995	2 017	22 368
1996	1 970	21 989
1997	1 767	21 519
1998	1 755	
1999	1 764	
2000	1 817	26 963
2001	1 737	27 482
2002	1 715	27 958
2003	1 621	28 446
2004	1 583	28 886
2005	1 627	30 597
2006	1 598	32 288
2007	1 603	32 552
2008	1 437	33 524
2009	1 490	33 692
2010	1 350	32 775
2011	1 277	34 082
2012	1 299	34 091
2013	1 185	35 059
2014	1 150	35 552
2015	1 205	37 082
2016	1 295	38 945
2017	1 223	
2018	1 136	

See end notes.

Note: Data are not readily available for missing years.
Data for Hospitalised Injuries have been revised. Minor injuries are excluded.
A hospitalised injury is a person admitted to hospital.
In 2012 there is a break in the series for Hospitalised Injury as a result of a change in the criteria for patient admission in one jurisdiction.

Source: AIHW (2016), BITRE (2018h) and Infrastructure (2012).

Table T 8.5a Road crash rate, by crash severity (per 100 000 population)

Calendar year	Fatal Crash	Hospitalised injury crash
1989	14.21	130.80
1990	11.94	116.53
1991	10.78	102.61
1992	9.87	97.31
1993	9.78	96.65
1994	9.48	97.77
1995	10.02	97.88
1996	9.60	95.08
1997	8.60	92.15
1998	8.36	
1999	8.16	
2000	8.44	
2001	8.11	
2002	7.75	
2003	7.29	
2004	7.20	
2005	7.25	
2006	7.04	
2007	6.91	
2008	6.13	
2009	6.16	
2010	5.54	
2011	5.11	
2012	5.19	
2013	4.72	
2014	4.44	
2015	4.59	
2016	4.93	
2017	4.55	
2018	4.23	

See end notes.

Note: Hospitalised Injury crash data excludes all fatal crashes.
Data are not readily available for missing years.

Source: ABS (2019q), BITRE (2019a), BITRE (2019k), and Infrastructure (2012).

Table T 8.5b Road casualty rate, by severity (per 100,000 population)

Calendar year	Fatalities	Hospitalised injury
1974	25.87	
1975	26.46	
1976	25.39	
1977	25.06	
1978	25.66	
1979	24.02	
1980	22.09	
1981	22.06	
1982	21.27	
1983	17.79	
1984	17.99	
1985	18.49	
1986	17.89	
1987	16.90	
1988	17.32	
1989	16.53	168.14
1990	13.57	145.34
1991	12.15	129.55
1992	11.23	122.36
1993	11.00	121.38
1994	10.73	123.23
1995	11.09	122.98
1996	10.70	119.43
1997	9.49	115.62
1998	9.33	
1999	9.27	
2000	9.42	139.84
2001	8.89	140.72
2002	8.71	142.04
2003	8.18	143.49
2004	7.89	144.05
2005	8.01	150.64
2006	7.74	156.46
2007	7.62	154.75
2008	6.69	156.16
2009	6.82	154.14
2010	6.09	147.75
2011	5.67	151.27
2012	5.67	148.74
2013	5.09	150.56
2014	4.87	150.50
2015	5.02	154.53
2016	5.31	159.60
2017	4.93	
2018	4.55	

See end notes.

Note: Data for Hospitalised Injuries have been revised. Minor injuries are excluded.
A hospitalised injury is defined as a person admitted to hospital.
Data are not readily available for missing years.
In 2012 there is a break in the series for Hospitalised Injury as a result of a change in the criteria for patient admission in one jurisdiction.

Source: ABS (2019q), BITRE (2019a), BITRE (2019k), and Infrastructure (2012).

Table T 8.6a Number of fatal road crashes, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1989	784	681	376	201	214	68	57	26	2 407
1990	702	492	347	187	181	63	54	24	2 050
1991	585	435	359	166	187	66	60	16	1 874
1992	576	365	363	142	171	59	42	18	1 736
1993	518	381	357	191	191	47	41	11	1 737
1994	552	345	364	143	195	52	36	15	1 702
1995	563	371	408	163	194	53	56	14	1 822
1996	538	382	338	162	220	53	58	17	1 768
1997	525	346	321	123	184	29	56	17	1 601
1998	491	348	257	152	199	47	59	20	1 573
1999	506	345	273	132	189	47	44	17	1 553
2000	543	373	275	151	184	38	48	16	1 628
2001	486	404	296	137	151	52	43	15	1 584
2002	501	361	283	138	159	35	40	8	1 525
2003	483	294	284	136	155	39	44	10	1 445
2004	458	312	289	128	162	52	34	9	1 444
2005	459	314	296	127	151	49	51	25	1 472
2006	449	309	313	104	181	43	41	12	1 452
2007	405	289	338	107	214	39	47	14	1 453
2008	353	278	294	87	185	37	67	14	1 315
2009	408	268	296	104	176	52	31	11	1 346
2010	365	260	236	105	175	28	46	15	1 230
2011	336	259	227	95	167	23	38	6	1 151
2012	336	261	255	86	171	29	40	12	1 190
2013	316	225	246	89	149	34	33	7	1 099
2014	285	223	199	96	172	31	34	10	1 050
2015	326	231	219	96	142	31	42	14	1 101
2016	356	275	238	77	173	32	40	11	1 202
2017	351	240	228	93	152	31	27	5	1 127
2018	326	202	224	75	146	32	42	9	1 056

Source: BITRE (2019k).

Table T 8.6b Number of road fatalities, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1971	1 249	923	594	292	332	130	50	20	3 590
1972	1 092	915	572	312	340	106	53	32	3 422
1973	1 230	935	638	329	358	105	55	29	3 679
1974	1 275	806	589	382	334	111	44	31	3 572
1975	1 288	910	635	339	304	122	64	32	3 694
1976	1 264	938	569	307	308	108	51	38	3 583
1977	1 268	954	572	306	290	112	47	29	3 578
1978	1 384	869	612	291	345	106	68	30	3 705
1979	1 288	846	616	309	279	93	53	24	3 508
1980	1 303	657	557	269	293	100	63	30	3 272
1981	1 291	766	594	222	238	111	70	29	3 321
1982	1 253	709	602	270	236	96	60	26	3 252
1983	966	664	510	266	203	70	48	28	2 755
1984	1 037	657	505	232	221	83	50	37	2 822
1985	1 067	683	502	268	243	78	67	33	2 941
1986	1 029	668	481	288	228	91	71	32	2 888
1987	959	705	442	256	213	77	84	36	2 772
1988	1 037	701	539	223	230	75	51	31	2 887
1989	959	776	428	222	242	80	61	32	2 800
1990	797	548	399	226	196	71	68	26	2 331
1991	663	503	395	184	207	77	67	17	2 113
1992	649	396	416	165	200	74	54	20	1 974
1993	581	435	396	218	209	58	44	12	1 953
1994	646	377	418	159	211	59	41	17	1 928
1995	620	418	456	181	209	57	61	15	2 017
1996	581	417	385	181	247	64	72	23	1 970
1997	576	377	360	148	197	32	60	17	1 767
1998	556	390	279	168	223	48	69	22	1 755
1999	577	383	314	151	218	53	49	19	1 764
2000	603	407	317	166	212	43	51	18	1 817
2001	524	444	324	153	165	61	50	16	1 737
2002	561	397	322	154	179	37	55	10	1 715
2003	539	330	310	157	180	41	53	11	1 621
2004	510	343	311	139	178	58	35	9	1 583
2005	508	346	330	148	163	51	55	26	1 627
2006	496	337	335	117	200	55	45	13	1 598
2007	435	332	360	124	235	45	58	14	1 603
2008	374	303	328	99	205	39	75	14	1 437
2009	453	290	331	119	191	63	31	12	1 490
2010	405	288	249	118	192	30	50	18	1 350
2011	364	287	269	103	179	24	45	6	1 277
2012	369	282	280	94	182	31	49	12	1 299
2013	333	243	271	97	162	35	37	7	1 185
2014	307	248	223	108	182	33	39	10	1 150
2015	350	252	243	102	161	33	49	15	1 205
2016	380	290	251	86	196	36	45	11	1 295
2017	389	259	247	100	160	32	31	5	1 223
2018	347	213	245	80	159	33	50	9	1 136

Source: BITRE (2019a) and BITRE (2019k).

Table T 8.6c Number of road fatalities, by road user type

Calendar year	Driver	Passenger	Pedestrian	Motorcyclist	Pedal cyclist	Total
2007	785	336	204	237	41	1 603
2008	665	304	191	246	28	1 437
2009	703	334	196	225	31	1 490
2010	631	285	172	224	38	1 350
2011	571	287	185	199	35	1 277
2012	605	264	173	221	33	1 299
2013	552	206	162	214	50	1 185
2014	533	228	150	191	44	1 150
2015	554	254	162	201	30	1 205
2016	620	211	183	251	30	1 295
2017	567	234	167	212	39	1 223
2018	518	207	178	191	35	1 136

Note: The total includes deaths to persons with road user type not recorded.
Source: BITRE (2019a) and BITRE (2019k).

Table T 8.6d Number of road fatalities, by age–group (years)

Calendar year	0 to 16	17 to 25	26 to 39	40 to 64	65 to 74	≥ 75
2007	101	392	412	451	101	145
2008	85	377	344	395	86	147
2009	104	361	354	446	93	130
2010	74	336	305	416	96	122
2011	92	281	274	398	83	148
2012	68	283	299	400	96	149
2013	65	230	243	373	118	156
2014	65	235	251	358	109	131
2015	64	227	272	374	117	151
2016	60	266	291	412	103	163
2017	48	245	238	388	121	182
2018	53	227	258	353	114	130

Source: BITRE (2019a) and BITRE (2019k).

Table T 8.6e Number of road fatalities, by gender

Calendar year	Females	Males	Total
2007	431	1 172	1 603
2008	375	1 057	1 437
2009	406	1 078	1 490
2010	366	981	1 350
2011	350	925	1 277
2012	368	930	1 299
2013	332	852	1 185
2014	330	818	1 150
2015	337	868	1 205
2016	338	956	1 295
2017	324	899	1 223
2018	290	845	1 136

Note: The total includes deaths to persons with gender not recorded.
Source: BITRE (2019a) and BITRE (2019k).

Table T 8.7a Fatal road crash rate, by state/territory (per 100 000 population)

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1989	13.6	15.8	13.3	14.2	13.6	14.9	35.4	9.4	14.3
1990	12.0	11.2	12.0	13.1	11.2	13.6	33.0	8.5	12.0
1991	9.9	9.8	12.1	11.5	11.4	14.1	36.3	5.5	10.8
1992	9.7	8.2	12.0	9.8	10.3	12.6	24.9	6.1	9.9
1993	8.6	8.5	11.5	13.1	11.4	10.0	23.9	3.7	9.8
1994	9.1	7.7	11.5	9.8	11.4	11.0	20.6	5.0	9.6
1995	9.2	8.2	12.6	11.1	11.2	11.2	31.2	4.6	10.1
1996	8.7	8.4	10.2	11.0	12.4	11.1	31.4	5.5	9.7
1997	8.4	7.6	9.6	8.3	10.2	6.1	29.5	5.5	8.7
1998	7.8	7.6	7.5	10.2	10.9	9.9	30.6	6.4	8.5
1999	7.9	7.4	7.9	8.9	10.2	9.9	22.4	5.4	8.3
2000	8.4	7.9	7.8	10.1	9.8	8.0	24.1	5.0	8.6
2001	7.4	8.5	8.3	9.1	7.9	11.0	21.3	4.7	8.2
2002	7.6	7.5	7.7	9.1	8.2	7.4	19.8	2.5	7.8
2003	7.3	6.0	7.6	8.9	7.9	8.1	21.8	3.1	7.3
2004	6.9	6.3	7.5	8.4	8.2	10.8	16.8	2.7	7.2
2005	6.9	6.3	7.6	8.3	7.5	10.1	24.8	7.5	7.3
2006	6.7	6.1	7.8	6.7	8.8	8.8	19.6	3.6	7.1
2007	5.9	5.6	8.2	6.8	10.2	7.9	22.0	4.1	7.0
2008	5.1	5.3	7.0	5.5	8.5	7.4	30.5	4.0	6.2
2009	5.8	5.0	6.8	6.5	7.9	10.3	13.7	3.1	6.2
2010	5.1	4.8	5.4	6.5	7.7	5.7	20.0	4.4	5.6
2011	4.7	4.7	5.1	5.8	7.1	4.5	16.4	1.6	5.2
2012	4.6	4.6	5.6	5.2	7.0	5.7	17.0	3.2	5.2
2013	4.3	3.9	5.3	5.4	6.0	6.8	13.6	1.8	4.8
2014	3.8	3.8	4.2	5.6	6.9	6.0	14.0	2.6	4.5
2015	4.3	3.8	4.6	5.6	5.5	6.2	17.1	3.5	4.6
2016	4.6	4.5	4.9	4.4	6.7	6.4	16.3	2.7	5.0
2017	4.5	3.8	4.6	5.4	5.9	6.3	10.9	1.2	4.6
2018	4.1	3.1	4.5	4.3	5.6	6.1	17.0	2.1	4.2

Source: ABS (2019q), BITRE (2019a) and BITRE (2019k).

Table T 8.7b Road fatality rate, by state/territory (per 100 000 population)

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1971	26.4	25.6	32.1	24.3	31.5	32.7	58.3	13.2	27.5
1972	22.8	25.0	30.1	25.7	31.4	26.5	57.6	20.0	25.7
1973	25.4	25.2	32.7	26.8	32.5	26.0	56.6	16.7	27.2
1974	26.1	21.5	29.3	30.8	29.6	27.3	42.7	16.6	26.0
1975	26.1	24.0	31.0	26.8	26.3	29.7	68.9	16.1	26.6
1976	25.5	24.6	27.2	24.1	26.1	26.2	51.9	18.3	25.5
1977	25.4	24.9	26.9	23.8	24.1	27.0	45.2	13.6	25.2
1978	27.4	22.5	28.2	22.5	28.1	25.4	61.8	13.8	25.8
1979	25.2	21.8	27.8	23.7	22.4	22.1	46.4	10.9	24.2
1980	25.2	16.8	24.6	20.6	23.1	23.6	53.3	13.4	22.3
1981	24.7	19.4	25.3	16.8	18.3	26.0	57.1	12.7	22.3
1982	23.6	17.8	24.8	20.3	17.6	22.3	46.0	11.2	21.4
1983	18.0	16.5	20.5	19.8	14.8	16.2	35.3	11.7	17.9
1984	19.2	16.1	20.0	17.1	15.9	19.0	35.2	15.1	18.1
1985	19.5	16.6	19.5	19.5	17.1	17.6	45.1	13.1	18.6
1986	18.6	16.1	18.3	20.8	15.6	20.4	46.0	12.4	18.0
1987	17.1	16.7	16.5	18.4	14.2	17.1	53.1	13.6	17.0
1988	18.2	16.4	19.7	15.9	15.0	16.6	32.1	11.4	17.5
1989	16.6	18.0	15.1	15.6	15.3	17.6	37.8	11.6	16.7
1990	13.7	12.5	13.8	15.8	12.2	15.4	41.5	9.2	13.7
1991	11.2	11.4	13.3	12.7	12.7	16.5	40.5	5.9	12.2
1992	10.9	8.9	13.8	11.3	12.1	15.7	32.0	6.8	11.3
1993	9.7	9.7	12.8	14.9	12.4	12.3	25.6	4.0	11.1
1994	10.7	8.4	13.2	10.9	12.4	12.5	23.4	5.6	10.8
1995	10.2	9.3	14.1	12.4	12.0	12.0	34.0	4.9	11.2
1996	9.4	9.2	11.7	12.3	14.0	13.5	39.0	7.4	10.8
1997	9.2	8.3	10.7	10.0	11.0	6.7	31.6	5.5	9.6
1998	8.8	8.5	8.2	11.3	12.2	10.1	35.8	7.1	9.4
1999	9.1	8.2	9.1	10.1	11.8	11.2	25.0	6.0	9.4
2000	9.4	8.7	9.0	11.1	11.3	9.1	25.6	5.7	9.5
2001	8.0	9.3	9.1	10.2	8.7	12.9	24.8	5.0	9.0
2002	8.5	8.2	8.8	10.2	9.3	7.8	27.2	3.1	8.8
2003	8.1	6.8	8.3	10.3	9.2	8.6	26.3	3.4	8.2
2004	7.7	7.0	8.1	9.1	9.0	12.0	17.3	2.7	7.9
2005	7.6	6.9	8.4	9.6	8.1	10.5	26.7	7.8	8.1
2006	7.4	6.7	8.4	7.5	9.8	11.2	21.5	3.9	7.8
2007	6.4	6.4	8.8	7.9	11.2	9.1	27.1	4.1	7.7
2008	5.4	5.8	7.8	6.2	9.4	7.8	34.1	4.0	6.8
2009	6.4	5.4	7.6	7.4	8.5	12.5	13.7	3.4	6.9
2010	5.7	5.3	5.7	7.3	8.4	6.1	21.8	5.3	6.1
2011	5.0	5.2	6.0	6.3	7.6	4.7	19.5	1.6	5.7
2012	5.0	5.0	6.1	5.7	7.5	6.1	20.8	3.2	5.7
2013	4.5	4.2	5.8	5.9	6.5	7.0	15.2	1.8	5.1
2014	4.1	4.2	4.7	6.4	7.3	6.4	16.1	2.6	4.9
2015	4.6	4.2	5.1	6.0	6.3	6.6	20.0	3.8	5.1
2016	4.9	4.7	5.2	5.0	7.6	7.1	18.3	2.7	5.3
2017	4.9	4.1	5.0	5.8	6.2	6.3	12.5	1.2	5.0
2018	4.4	3.3	4.9	4.6	6.1	6.2	20.2	2.1	4.5

Source: ABS (2018f) and BITRE (2018h).

Table T 8.8 Number of persons with hospitalised injuries due to road crashes, by state/territory

Year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
1989	8 233	9 356	3 955	2 491	2 996	705	503	221	28 460
1990	7 466	7 117	3 970	2 397	2 643	607	544	217	24 961
1991	6 702	6 198	3 825	2 058	2 565	538	430	212	22 528
1992	6 398	5 929	3 961	1 599	2 554	490	403	178	21 512
1993	6 337	5 953	4 027	1 549	2 583	522	430	156	21 557
1994	6 244	6 045	4 576	1 514	2 660	523	386	185	22 133
1995	6 127	6 124	4 605	1 521	2 890	528	401	172	22 368
1996	5 975	6 077	4 469	1 701	2 592	439	480	245	21 978
1997	6 141	5 781	4 145	1 509	2 899	420	402	222	21 519
1998									
1999									
2000									26 963
2001	8 535	8 157	4 915	2 225	2 028	587	408	267	27 482
2002	8 813	8 028	5 169	2 313	1 975	586	440	256	27 958
2003	8 920	8 052	5 250	2 288	2 169	585	458	311	28 446
2004	9 263	7 838	5 556	2 149	2 333	598	435	320	28 886
2005	9 777	8 329	5 900	2 271	2 333	715	366	459	30 597
2006	10 410	8 273	6 319	2 466	2 618	749	518	506	32 288
2007	9 810	8 796	6 545	2 480	2 782	709	462	513	32 552
2008	9 894	8 879	7 042	2 401	2 964	730	536	609	33 524
2009	9 977	8 606	7 074	2 407	3 161	689	535	628	33 692
2010	10 139	8 636	6 242	2 369	3 228	537	541	578	32 775
2011	10 635	9 335	6 325	2 360	3 449	494	n.p.	n.p.	34 082
2012	11 138	8 117	6 831	2 310	3 504	538	496	601	34 091
2013									35 059
2014									35 552
2015									37 082
2016									38 945

See end notes.

Note: Data for Hospitalised Injuries have been revised. Minor injuries are excluded.
A hospitalised injury is a person admitted to hospital.
Data are not readily available for missing years.

Source: AIHW (2012), AIHW (2019b) and Infrastructure (2012).

Table T 8.9 Hospitalised road injury rate, by state/territory (per 100 000 population) [29]

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
1989	142.5	216.6	139.9	175.5	189.8	154.9	312.1	79.9	169.3
1990	128.0	162.5	136.9	167.4	163.9	131.3	332.3	76.9	146.3
1991	113.6	140.2	129.2	142.3	156.8	115.3	259.8	73.3	130.3
1992	107.4	133.2	131.0	109.9	154.0	104.3	239.1	60.4	123.1
1993	105.7	133.4	130.1	106.2	153.9	110.6	250.4	52.0	122.2
1994	103.3	135.1	144.5	103.5	156.0	110.5	220.7	61.2	124.3
1995	100.4	136.2	142.2	103.8	166.5	111.3	223.3	56.2	124.2
1996	96.7	134.0	135.3	115.8	146.6	92.3	260.1	79.1	120.6
1997	98.3	126.5	123.5	102.3	161.2	88.4	211.9	71.5	116.8
1998									
1999									
2000									141.7
2000-01	132.6	159.8	130.8	150.4	106.1	130.2	217.5	72.4	139.5
2001-02	137.6	172.2	143.4	147.0	107.5	118.6	225.5	90.7	146.7
2002-03	128.6	166.2	137.0	151.6	103.2	120.0	220.3	74.6	140.4
2003-04	139.3	159.9	141.9	150.4	115.5	125.0	213.7	100.1	145.2
2004-05	140.8	165.3	151.7	144.9	117.7	132.0	192.3	109.6	148.9
2005-06	150.5	163.9	151.0	151.9	120.9	150.8	195.8	147.5	153.6
2006-07	151.7	167.5	161.3	154.4	131.1	150.4	236.0	159.3	158.9
2008	149.7	166.7	144.0	140.5	141.9	104.8	188.3	150.0	157.8
2009	141.7	158.9	163.7	151.1	140.4	141.4	229.9	169.5	155.3
2010	142.3	156.2	142.5	146.1	139.8	110.3	225.4	152.9	148.8
2011	147.7	166.6	141.8	144.0	145.3	99.7	n.p.	n.p.	152.6
2012	153.3	142.3	150.1	138.5	142.9	107.9	202.5	156.0	149.9
2013									151.5
2014									151.3
2015									155.7
2016									161.0

See end notes.

Note: For the calendar year rates, the June population was used and for financial year rates, December population was used.
Data for Hospitalised Injuries have been revised. Minor injuries are excluded.
A hospitalised injury is a person admitted to hospital.
Data are not readily available for missing years.

Source: ABS (2018f) AIHW (2018b), AIHW (2012) and Infrastructure (2012).

Table T 8.10 Number of rail casualties, by severity

Calendar year	Fatal	Serious injuries
1979	49	
1980	56	
1981	72	
1982	72	
1983	66	
1984	76	
1985	66	
1986	66	
1987	54	
1988	64	
1989	67	
1990	76	
1991	42	
1992	61	
1993	52	
1994	43	
1995	46	
1996	30	
1997	43	
1998	43	
1999	43	
2000	38	
2001	53	83
2002	40	98
2003	33	51
2004	33	71
2005	35	72
2006	39	135
2007	42	183
2008	31	114
2009	28	91
2010	29	38
2011	33	66
	Change in methodology	
2012	[m] 20	
2013	[m] 7	
2014		
2015		
2016		
2017		
2018	9	72

See end notes.

[m] Fatality and serious injury data from 2012 onwards excludes suspected suicide and trespass occurrences. They were compiled using new methodology and should not be compared with earlier results.

Note: Data are not readily available for missing years.

Source: ATSB (2004), ATSB (2010), ATSB (2012), ONRSR (2019).

Table T 8.11 Number of rail fatalities, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT [30]	Total
2003	18	10	3	0	2	0	0		33
2004	15	12	2	2	1	0	1		33
2005	11	14	6	4	0	0	0		35
2006	9	14	9	2	4	1	0		39
2007	8	23	3	5	3	0	0		42
2008	7	17	6	1	0	0	0		31
2009	5	15	3	2	2	0	1		28
2010	10	9	4	2	3	1	0		29
2011	13	8	5	3	3	1	1		34
Change in methodology									
2012	3	10	7	1	2	0	0		20
2013	1	5	0	1	1	0	0		7
2014	1	2		0		1	0	0	
2015	3	0		1	0	0	0	0	
2016	1	3		0	3	0	0	0	
2017	2	2		0	1	0	0	0	
2018	3	2	1	0	3	0	0	0	9

See end notes.

[m] Fatality and serious injury data from 2012 onwards excludes suspected suicide and trespass occurrences. They were compiled using new methodology and should not be compared with earlier results.

Note: The statistics apply only to those railways within ONRSR's area of operation within this reporting period – South Australia, New South Wales, Tasmania, Northern Territory, Victoria, Australian Capital Territory, Western Australia (1 January 2017 to 31 December 2017) and Queensland (from 1 July 2017). The statistics cover all railway operations within the aforementioned timeframes and geographic bounds, with the exception of Victoria. There are 11 railways which continue to be regulated under local Victorian law and are therefore not subject to Rail Safety National Law (RSNL). These comprise the metropolitan tram operator and 10 standalone tourist and heritage railways.

Source: ATSB (2004), ATSB (2010), ATSB (2012), ONRSR (2019).

Table T 8.12 Rail fatality rate per 100 000 population, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
2003	0.27	0.21	0.08	0.00	0.10	0.00	0.00	0.00	0.17
2004	0.23	0.24	0.05	0.13	0.05	0.00	0.49	0.00	0.17
2005	0.16	0.28	0.15	0.26	0.00	0.00	0.00	0.00	0.17
2006	0.13	0.28	0.22	0.13	0.20	0.20	0.00	0.00	0.19
2007	0.12	0.45	0.07	0.32	0.14	0.00	0.00	0.00	0.20
2008	0.10	0.32	0.14	0.06	0.00	0.00	0.00	0.00	0.15
2009	0.07	0.28	0.07	0.12	0.09	0.00	0.44	0.00	0.13
2010	0.14	0.16	0.09	0.12	0.13	0.20	0.00	0.00	0.13
2011	0.18	0.14	0.11	0.18	0.13	0.20	0.43	0.00	0.15
Change in methodology									
2012	0.04	0.18	0.15	0.06	0.08	0.00	0.00	0.00	0.09
2013	0.01	0.09	0.00	0.06	0.04	0.00	0.00	0.00	0.03
2014	0.01	0.03	0.00	0.00	0.00	0.19	0.00	0.00	0.00
2015	0.04	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
2016	0.01	0.05	0.00	0.00	0.12	0.00	0.00	0.00	0.00
2017	0.03	0.03	0.00	0.00	0.04	0.00	0.00	0.00	0.00
2018	0.04	0.03	0.02	0.00	0.12	0.00	0.00	0.00	0.04

See end notes.

[m] Fatality and serious injury data from 2012 onwards excludes suspected suicide and trespass occurrences. They were compiled using new methodology and should not be compared with earlier results.

Note: Queensland and Western Australia are not under the sources jurisdiction and therefore data for those states is not provided.

Source: ABS (2019q), ATSB (2004), ATSB (2010), ATSB (2012), ONRSR (2019).

Table T 8.13a Number of aviation accidents, by accident severity

Calendar year	Fatal accidents	Non-fatal accidents
1972	23	177
1973	15	227
1974	17	241
1975	22	206
1976	27	285
1977	31	259
1978	34	274
1979	31	284
1980	32	269
1981	27	254
1982	35	223
1983	30	275
1984	32	234
1985	29	212
1986	29	218
1987	25	264
1988	35	289
1989	46	300
1990	44	299
1991	28	291
1992	38	267
1993	30	283
1994	35	228
1995	33	235
1996	29	214
1997	25	231
1998	31	197
1999	25	167
2000	24	193
2001	27	169
2002	19	145
2003	21	133
2004	21	142
2005	24	109
2006	24	81
2007	30	132
2008	27	164
2009	23	147
2010	19	181
2011	25	168
2012	27	176
2013	33	148
2014	20	255
2015	27	196
2016	15	212
2017	22	171
2018	17	210

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) in Australia only.
Source: ATSB (2019a).

Table T 8.13b Number of aviation casualties, by severity

Calendar year	Fatalities	Serious injuries
1972	52	20
1973	26	23
1974	39	23
1975	49	27
1976	58	49
1977	55	51
1978	65	49
1979	45	50
1980	64	41
1981	58	49
1982	60	43
1983	54	45
1984	48	37
1985	54	36
1986	54	35
1987	39	58
1988	67	44
1989	82	75
1990	80	61
1991	52	39
1992	63	38
1993	56	58
1994	62	31
1995	51	48
1996	51	33
1997	38	29
1998	56	22
1999	46	20
2000	44	42
2001	46	31
2002	34	26
2003	44	26
2004	34	23
2005	45	7
2006	40	15
2007	44	17
2008	43	42
2009	25	21
2010	24	32
2011	39	38
2012	39	38
2013	46	19
2014	28	35
2015	31	32
2016	21	35
2017	40	33
2018	20	39

Note: Includes civilian aviation casualties (VH and non-VH registered aircraft) in Australia only.
Source: ATSB (2019a).

Table T 8.14a Aviation accident rate by accident severity (per 100,000 population)

Calendar year	Fatal	Non-fatal
1981	0.18	1.69
1982	0.23	1.46
1983	0.19	1.78
1984	0.20	1.49
1985	0.18	1.33
1986	0.18	1.35
1987	0.15	1.61
1988	0.21	1.73
1989	0.27	1.77
1990	0.26	1.74
1991	0.16	1.67
1992	0.22	1.52
1993	0.17	1.60
1994	0.20	1.27
1995	0.18	1.30
1996	0.16	1.17
1997	0.14	1.25
1998	0.17	1.05
1999	0.13	0.88
2000	0.13	1.01
2001	0.14	0.87
2002	0.10	0.74
2003	0.11	0.67
2004	0.10	0.71
2005	0.12	0.54
2006	0.12	0.39
2007	0.14	0.63
2008	0.13	0.76
2009	0.11	0.67
2010	0.09	0.82
2011	0.11	0.75
2012	0.12	0.77
2013	0.14	0.64
2014	0.08	1.08
2015	0.11	0.82
2016	0.06	0.87
2017	0.09	0.69
2018	0.07	0.83

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) inside Australia only.
Source: ABS (2019a), ATSB (2019a).

Table T 8.14b Aviation casualty rate by severity (per 100,000 population)

Calendar year	Fatalities	Non-fatal injuries
1981	0.39	0.33
1982	0.39	0.28
1983	0.35	0.29
1984	0.31	0.24
1985	0.34	0.23
1986	0.33	0.22
1987	0.24	0.35
1988	0.40	0.26
1989	0.48	0.44
1990	0.47	0.36
1991	0.30	0.22
1992	0.36	0.22
1993	0.32	0.33
1994	0.35	0.17
1995	0.28	0.26
1996	0.28	0.18
1997	0.21	0.16
1998	0.30	0.12
1999	0.24	0.11
2000	0.23	0.22
2001	0.24	0.16
2002	0.17	0.13
2003	0.22	0.13
2004	0.17	0.11
2005	0.22	0.03
2006	0.19	0.07
2007	0.21	0.08
2008	0.20	0.20
2009	0.11	0.10
2010	0.11	0.14
2011	0.17	0.17
2012	0.17	0.17
2013	0.20	0.08
2014	0.12	0.15
2015	0.13	0.13
2016	0.09	0.14
2017	0.16	0.13
2018	0.08	0.15

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) inside Australia only.
Source: ABS (2019a), ATSB (2019a).

Table T 8.15a Number of aviation accidents, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other[o]	ATW (Australian Territorial Waters)	Total
1972	45	46	39	20	25	9	15	1	0	0	200
1973	76	54	37	22	27	10	13	3	0	0	242
1974	58	52	46	33	40	10	16	1	2	0	258
1975	68	48	45	24	27	5	9	2	0	0	228
1976	95	70	47	42	38	8	12	0	0	0	312
1977	78	67	45	33	41	7	16	3	0	0	290
1978	78	57	69	29	51	2	20	2	0	0	308
1979	102	52	62	31	42	4	20	2	0	0	315
1980	88	43	68	27	48	5	19	2	1	0	301
1981	68	33	83	35	44	4	14	0	0	0	281
1982	74	37	73	21	37	3	10	2	1	0	258
1983	97	36	92	22	33	10	11	4	0	0	305
1984	83	38	68	20	36	8	13	0	0	0	266
1985	82	27	64	14	35	8	10	1	0	0	241
1986	76	47	52	20	29	5	17	1	0	0	247
1987	91	43	81	23	22	7	22	0	0	0	289
1988	89	36	103	27	36	6	23	4	0	0	324
1989	98	45	117	22	28	6	25	5	0	0	346
1990	122	39	90	16	47	6	23	0	0	0	343
1991	88	43	90	16	50	6	23	2	1	0	319
1992	93	47	66	24	47	9	18	1	0	0	305
1993	92	40	88	23	40	10	19	1	0	0	313
1994	79	35	71	20	32	3	23	0	0	0	263
1995	67	31	96	16	41	4	11	2	0	0	268
1996	66	25	77	15	42	9	9	0	0	0	243
1997	71	30	74	18	32	5	24	2	0	0	256
1998	64	25	68	13	33	8	14	3	0	0	228
1999	47	32	50	18	26	4	11	3	1	0	192
2000	59	31	63	10	34	2	17	1	0	0	217
2001	41	24	57	15	35	4	18	2	0	0	196
2002	51	21	42	9	25	6	10	0	0	0	164
2003	45	22	37	8	21	5	12	4	0	0	154
2004	38	26	55	11	17	5	11	0	0	0	163
2005	45	17	37	10	17	0	7	0	0	0	133
2006	30	14	27	3	15	5	10	1	0	0	105
2007	42	28	40	10	22	5	14	0	1	0	162
2008	55	27	47	12	32	4	14	0	0	0	191
2009	50	27	45	6	24	6	10	1	0	1	170
2010	42	32	57	18	31	4	16	0	0	0	200
2011	51	27	53	11	29	7	15	0	0	0	193
2012	53	43	56	13	22	4	11	1	0	0	203
2013	44	37	51	12	21	6	9	1	0	0	181
2014	65	48	73	18	50	4	16	1	0	0	275
2015	57	40	65	15	32	0	12	2	0	0	223
2016	51	35	67	22	37	5	10	0	0	0	227
2017	47	31	56	7	28	6	15	3	0	0	193
2018	58	39	59	16	34	4	17	0	0	0	227

[o] Other includes accidents that occurred on Norfolk Island and in the Australian Antarctic Territory.

Source: ATSB (2019a).

Table T 8.15b Number of aviation fatalities, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other[o]	Total
1972	10	3	9	14	1	2	13	0	0	52
1973	14	0	1	5	5	1	0	0	0	26
1974	10	6	9	7	3	2	2	0	0	39
1975	11	6	13	5	7	0	6	1	0	49
1976	33	4	9	11	0	1	0	0	0	58
1977	20	6	9	8	4	2	6	0	0	55
1978	12	23	17	4	7	0	2	0	0	65
1979	13	15	6	4	5	0	2	0	0	45
1980	30	16	6	4	8	0	0	0	0	64
1981	14	14	18	2	5	0	5	0	0	58
1982	21	12	23	0	4	0	0	0	0	60
1983	10	8	25	2	6	3	0	0	0	54
1984	15	7	11	4	8	3	0	0	0	48
1985	17	7	12	7	7	0	4	0	0	54
1986	15	12	13	8	5	0	1	0	0	54
1987	13	5	18	1	1	1	0	0	0	39
1988	24	7	21	2	12	0	1	0	0	67
1989	26	6	23	5	2	0	20	0	0	82
1990	29	7	33	3	5	0	3	0	0	80
1991	15	6	15	3	3	4	2	4	0	52
1992	26	10	9	3	8	5	1	1	0	63
1993	21	5	18	2	1	6	1	2	0	56
1994	29	5	20	6	2	0	0	0	0	62
1995	19	8	17	0	0	3	4	0	0	51
1996	15	3	19	1	10	3	0	0	0	51
1997	16	2	10	2	1	1	6	0	0	38
1998	24	4	13	1	8	5	1	0	0	56
1999	11	8	17	6	2	0	1	1	0	46
2000	2	6	21	9	4	0	2	0	0	44
2001	6	5	18	2	8	2	1	4	0	46
2002	11	7	11	0	0	0	5	0	0	34
2003	16	0	13	2	9	4	0	0	0	44
2004	7	13	10	0	2	1	1	0	0	34
2005	12	6	23	2	1	0	1	0	0	45
2006	16	5	14	0	2	0	3	0	0	40
2007	8	12	9	0	8	3	4	0	0	44
2008	16	3	11	1	8	0	4	0	0	43
2009	6	7	5	1	6	0	0	0	0	25
2010	7	2	7	1	4	0	3	0	0	24
2011	14	5	12	3	3	1	1	0	0	39
2012	13	8	15	1	2	0	0	0	0	39
2013	11	11	12	2	3	1	6	0	0	46
2014	12	2	8	3	1	2	0	0	0	28
2015	11	6	10	0	3	0	1	0	0	31
2016	4	9	6	2	0	0	0	0	0	21
2017	12	9	6	6	3	2	2	0	0	40
2018	8	2	6	0	1	2	1	0	0	20

[o] Other includes accidents that occurred on Norfolk Island and in the Australian Antarctic Territory.

Source: ATSB (2019a).

CHAPTER 9
Energy and the environment

Table T 9.1 Total transport petroleum sales, by fuel type

Financial year	Automotive gasoline	Automotive LPG	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
			megalitres			
1983–84	15 336.5		7 933.8			
1984–85	15 577.6		8 152.4			
1985–86	15 870.0		8 297.2			
1986–87	16 006.0		8 695.8			
1987–88	16 567.0		9 093.8			2 788.2
1988–89	17 079.0		9 756.1			2 981.1
1989–90	17 348.0		10 087.0			2 843.0
1990–91	16 874.0		9 795.0			3 229.0
1991–92	16 963.0		9 984.4			3 459.1
1992–93	17 293.0		10 321.4			3 684.6
1993–94	17 506.7		10 721.3		76.5	3 823.1
1994–95	17 751.5		11 174.7		104.5	4 301.8
1995–96	17 885.8		11 923.2		101.6	4 664.9
1996–97	17 889.0		12 315.8		102.3	4 847.8
1997–98	17 912.7		12 557.4		104.1	4 863.0
1998–99	18 202.1		12 823.2		105.9	4 793.8
1999–00	18 476.6	1 902.9	13 245.1	17.7	103.3	5 022.8
2000–01	18 167.6	2 221.4	12 952.4	22.1	101.4	5 318.5
2001–02	18 668.8	2 422.2	13 441.2	45.8	96.5	4 602.6
2002–03	18 872.5	2 416.3	13 888.0	18.1	90.2	4 249.7
2003–04	19 962.0	2 546.8	14 461.5	17.0	89.9	4 328.8
2004–05	19 875.7	2 338.8	15 185.0	14.7	90.7	4 729.9
2005–06	19 047.9	2 563.7	15 803.6	19.4	86.4	5 359.4
2006–07	19 250.7	2 335.3	17 027.6	15.2	89.5	5 837.0
2007–08	19 234.2	2 240.5	18 244.9	11.5	87.8	6 211.8
2008–09	18 734.2	2 253.1	18 587.0	16.2	96.1	6 316.7
2009–10	18 643.6	2 083.1	19 043.9	25.8	79.7	6 675.2
2010–11	18 926.2	2 017.3	19 616.3	na	78.6	7 067.7
2011–12	18 717.0	1 842.6	22 532.4	na	84.1	7 336.2
2012–13	18 469.7	1 575.0	24 642.6	na	81.0	7 773.1
2013–14	18 144.1	1 823.3	24 920.7	na	72.7	8 167.9
2014–15	18 110.2	1 469.4	25 290.7	na	68.2	8 142.8
2015–16	18 438.4	1 329.4	25 300.6	na	67.6	8 516.4
2016–17	18 612.1	1 006.3	26 280.5	na	69.2	8 925.5
2017–18	18 367.4	856.8	28 248.4	na	66.2	9 312.9
2018–19	17 577.0	697.4	29 292.4	na	67.1	9 401.5

Note: Data are not readily available for missing years.
From 2010–11 onwards, industrial & marine diesel figures are included in the automotive diesel data.
From March 2017 all published estimates of "Automotive Gasoline" and "Diesel Oil" have been revised. These revisions impact all of the individual state/territory and product estimates and sub–totals for "sales to retailers" and apply to the entire published time series.

na: not available.

Source: Environment and Energy (2019b).

Table T 9.2a Selected refined petroleum products—Australian production

Financial year	Automotive gasoline	LPG	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
			megalitres			
2002–03	17 984.1	1 657.2	13 334.8	116.7	134.1	5 148.9
2003–04	17 375.3	1 061.8	12 544.1	84.1	113.8	4 964.3
2004–05	17 668.4	974.4	12 661.1	22.0	139.7	5 275.0
2005–06	16 527.6	1 124.7	10 153.7	30.8	119.5	5 215.5
2006–07	17 732.1	1 386.7	11 055.3	20.7	119.3	5 332.1
2007–08	17 049.0	1 514.9	12 176.6	3.4	119.0	5 181.8
2008–09	17 159.5	1 476.9	12 230.9	13.0	104.6	5 494.3
2009–10	16 771.1	1 203.6	11 719.6	3.0	103.6	5 340.7
2010–11	16 642.6	1 831.7	12 894.3	na	91.4	5 447.7
2011–12	15 573.2	1 600.7	12 691.3	na	89.7	5 453.4
2012–13	15 602.8	1 536.2	12 908.5	na	92.2	5 534.4
2013–14	14 477.7	1 446.6	12 456.2	na	89.3	5 008.7
2014–15	12 753.2	1 310.6	11 459.1	na	86.9	4 255.2
2015–16	11 641.4	1 081.2	8 980.3	na	63.7	3 412.8
2016–17	11 043.9	984.1	8 663.9	na	49.2	3 529.3
2017–18	11 415.4	969.1	9 185.8	na	56.3	3 760.7
2018–19	11 152.3	947.9	9 024.0	na	53.8	3 917.8

Note: LPG figures include all production and trade, including petrochemical transfers to industry.
From 2010–11 onwards, industrial & marine diesel figures are included in the automotive diesel data.
Source: Environment and energy (2019b).

Table T 9.2b Selected refined petroleum products—imports to Australia

Financial year	Automotive gasoline	LPG	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
			megalitres			
2002–03	1 686.1	299.0	1 645.6		55.8	440.8
2003–04	3 213.2	789.4	3 383.0		203.8	725.9
2004–05	3 166.0	540.0	3 965.1		47.0	986.9
2005–06	3 696.0	631.5	6 127.1		10.5	827.5
2006–07	2 815.5	749.3	5 931.5		0.8	1 089.4
2007–08	3 533.1	964.8	7 476.2		0.1	1 845.5
2008–09	4 087.5	1 003.8	8 245.9		0.0	2 026.5
2009–10	3 887.4	1 066.8	8 680.5		0.0	2 168.4
2010–11	2 652.8	888.2	8 843.4		0.0	2 085.9
2011–12	3 671.7	1 022.7	11 244.3		5.8	2 251.9
2012–13	3 653.1	918.0	12 512.1		0.0	3 201.2
2013–14	3 598.3	729.9	13 602.6		0.0	3 481.8
2014–15	5 534.2	958.0	15 178.2		0.1	4 299.4
2015–16	6 637.6	918.2	17 758.7		0.0	5 591.0
2016–17	6 951.0	1 003.0	18 513.0		0.0	5 859.1
2017–18	6 378.1	833.4	20 127.4		0.0	6 132.5
2018–19	6 046.8	756.7	20 604.1		0.1	5 843.7
2017–18	6 380.3	784.7	20 126.8		0.0	6 169.5

Note: LPG figures include all production and trade.
Data are not separately available for missing years.
All diesel imports are included in automotive diesel.
Source: Environment and Energy (2019b).

Table T 9.2c Selected refined petroleum products—exports from Australia

Financial year	Automotive gasoline	LPG	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
			megalitres			
2001–02	1 184.8	3 211.2	886.2	60.0	73.8	549.0
2002–03	1 052.6	3 195.2	1 044.1	0.0	52.5	651.7
2003–04	755.5	2 936.9	840.7	0.0	29.6	518.7
2004–05	770.6	2 846.6	293.9	0.0	35.7	227.0
2005–06	629.5	2 799.9	418.8	0.0	174.4	126.5
2006–07	763.5	2 850.9	283.6	0.0	97.0	121.7
2007–08	628.3	2 589.0	461.7	0.0	96.4	149.5
2008–09	243.8	2 499.7	357.2	0.0	56.2	112.7
2009–10	221.9	2 776.3	187.0	0.0	32.5	71.9
2010–11	174.5	2 470.8	117.2	na	19.8	11.8
2011–12	175.2	2 114.7	129.6	na	25.5	2.4
2012–13	99.7	2 385.6	91.1	na	22.1	13.0
2013–14	131.2	2 458.9	61.0	na	20.3	2.3
2014–15	118.1	2 111.7	76.3	na	10.2	19.9
2015–16	72.4	1 989.2	51.9	na	3.9	1.7
2016–17	218.8	2 232.2	105.3	na	1.6	69.8
2017–18	151.0	2 285.1	86.0	na	1.7	142.6
2018–19	220.9	2 672.6	112.6	na	2.1	17.9

Note: LPG figures include all production and trade.
From 2010–11 onwards, industrial & marine diesel figures are included in the automotive diesel data.
Source: Environment and Energy (2019b).

Table T 9.3 Average retail petrol prices in Australia (nominal), by state/territory

Average over financial year	NSW/ACT	VIC	QLD	SA	WA	TAS	NT	National
				cents per litre				
2002–03	91.8	90.3	83.7	91.6	94.0	99.8	95.1	90.3
2003–04	93.6	91.7	85.2	93.8	94.5	101.3	98.3	91.9
2004–05	105.2	102.4	95.9	104.5	103.8	112.5	109.1	102.8
2005–06	124.6	123.3	116.9	125.1	124.3	131.2	129.0	123.0
2006–07	124.9	124.1	118.0	124.2	124.5	133.9	127.0	123.4
2007–08	137.9	137.0	130.6	137.1	137.5	147.8	141.4	136.3
2008–09	129.7	130.2	123.3	129.8	128.7	140.2	134.3	128.8
2009–10	124.8	125.3	125.9	124.2	124.7	133.6	129.8	125.3
2010–11	132.0	131.5	133.2	130.9	133.5	141.2	138.5	132.4
2011–12	144.0	141.9	145.7	143.4	144.9	156.2	150.3	144.1
2012–13	143.5	141.3	145.4	141.7	144.0	161.6	152.1	143.6
2013–14	152.6	149.7	154.4	150.9	152.8	171.8	162.0	152.5
2014–15	137.0	133.2	138.8	133.5	137.1	151.6	146.0	136.5
2015–16	123.5	120.8	125.4	120.8	123.9	127.0	130.4	123.2
2016–17	123.7	123.1	125.9	121.1	124.7	128.8	132.3	124.1
2017–18	134.8	135.2	137.4	133.2	135.8	148.3	144.3	135.7
2018–19	141.9	141.4	143.5	141.3	143.7	156.3	153.5	142.6

Note: National averages are calculated as weighted averages of the State/Territory prices, with weights based on vehicle numbers using petrol in each region.
Source: AIP (2019).

Table T 9.4 Transport direct greenhouse gas (carbon dioxide equivalent) emissions, by transport mode, from energy end–use

Financial year	Road Vehicles	Rail (excl electric)	Domestic maritime	Domestic aviation	Total (including off–road vehicles)
	gigagrams of CO_2 equivalent				
1975–76	34 617	1 907	3 292	2 603	42 420
1976–77	36 645	1 952	3 594	2 584	44 774
1977–78	38 191	1 976	3 948	2 845	46 959
1978–79	39 984	2 024	3 581	2 698	48 287
1979–80	40 716	2 023	3 758	2 806	49 302
1980–81	41 588	1 993	3 799	2 790	50 170
1981–82	43 569	1 963	3 272	3 124	51 928
1982–83	43 096	1 802	2 988	3 010	50 896
1983–84	45 145	1 956	3 050	2 936	53 087
1984–85	46 908	2 040	2 907	3 017	54 872
1985–86	48 060	1 985	2 986	3 244	56 276
1986–87	48 960	2 016	2 963	3 331	57 270
1987–88	51 486	1 985	2 932	3 600	60 004
1988–89	53 510	1 820	2 702	3 536	61 568
1989–90	54 802	1 753	2 414	2 833	61 802
1990–91	53 776	1 745	2 109	3 517	61 146
1991–92	54 477	1 696	2 166	3 817	62 156
1992–93	56 196	1 699	1 977	4 005	63 877
1993–94	57 734	1 800	1 846	4 239	65 619
1994–95	59 997	1 755	2 351	4 997	69 099
1995–96	61 438	1 707	2 473	5 485	71 103
1996–97	62 458	1 739	2 466	5 857	72 521
1997–98	63 504	1 779	2 176	5 312	72 770
1998–99	64 672	1 829	2 018	5 115	73 633
1999–00	65 915	1 884	2 115	5 348	75 262
2000–01	65 453	1 854	2 023	5 960	75 290
2001–02	67 292	1 939	2 089	5 344	76 663
2002–03	69 065	1 991	2 164	5 098	78 318
2003–04	71 922	2 127	2 310	5 333	81 693
2004–05	72 329	2 305	2 435	5 820	82 889
2005–06	71 973	2 319	2 281	6 158	82 731
2006–07	73 329	2 499	2 344	6 663	84 835
2007–08	74 375	2 580	2 332	7 160	86 448
2008–09	74 123	2 584	2 288	7 340	86 335
2009–10	75 098	2 683	2 391	7 457	87 628
2010–11	76 293	2 763	2 441	7 981	89 479
2011–12	77 434	2 907	2 333	8 308	90 982
2012–13	78 140	3 026	2 141	8 848	92 156
2013–14	78 744	3 213	2 212	8 953	93 123
2014–15	79 262	3 421	2 245	8 949	93 877
2015–16	81 798	3 546	2 288	9 097	96 730
2016–17	83 179	3 663	2 285	9 166	98 293
2017–18	84 079	3 738	2 315	9 344	99 476
2018–19	83 821	3 814	2 242	9 315	99 193

Note: Data provided for 2018–19 are preliminary estimates and subject to change
No emissions from electricity use included.

Source: BITRE estimates.

Table T 9.5 Road transport direct greenhouse gas (carbon dioxide equivalent) emissions, by vehicle type, from energy end–use

Financial year	Cars	Light commercial vehicles	Articulated trucks	Rigid and other trucks	Buses	Motor cycles	Total road
	gigagrams of CO_2 equivalent						
1989–90	34 878	7 619	5 629	5 099	1 266	251	54 742
1990–91	34 795	7 365	5 544	4 560	1 224	226	53 716
1991–92	35 433	7 590	5 592	4 393	1 182	226	54 416
1992–93	36 576	7 817	6 008	4 332	1 173	226	56 132
1993–94	37 521	8 049	6 187	4 483	1 205	223	57 668
1994–95	38 580	8 518	6 658	4 723	1 229	221	59 929
1995–96	39 069	8 816	7 003	4 999	1 266	214	61 367
1996–97	39 301	8 910	7 312	5 381	1 269	213	62 387
1997–98	39 532	9 310	7 626	5 461	1 298	205	63 431
1998–99	40 228	9 540	7 891	5 428	1 311	197	64 596
1999–00	40 895	9 731	8 148	5 517	1 347	200	65 837
2000–01	40 474	9 853	8 079	5 393	1 370	206	65 375
2001–02	41 408	10 271	8 358	5 587	1 370	218	67 212
2002–03	42 310	10 561	8 668	5 810	1 419	214	68 982
2003–04	44 333	10 909	8 993	5 937	1 438	226	71 836
2004–05	44 145	10 968	9 285	6 157	1 443	243	72 242
2005–06	42 961	11 262	9 517	6 410	1 474	265	71 889
2006–07	43 259	11 659	9 938	6 616	1 477	294	73 242
2007–08	43 289	12 172	10 214	6 800	1 490	322	74 286
2008–09	42 810	12 526	10 115	6 710	1 529	344	74 033
2009–10	42 848	13 023	10 292	6 899	1 574	370	75 007
2010–11	43 033	13 369	10 689	7 093	1 633	383	76 200
2011–12	43 216	13 720	11 107	7 289	1 688	320	77 340
2012–13	43 174	14 075	11 365	7 427	1 681	325	78 048
2013–14	43 284	14 365	11 575	7 480	1 621	330	78 655
2014–15	43 713	14 714	11 506	7 339	1 567	333	79 171
2015–16	44 526	15 119	11 996	7 950	1 776	337	81 704
2016–17	45 049	15 598	12 151	8 167	1 781	337	83 083
2017–18	45 012	16 168	12 282	8 400	1 788	334	83 984
2018–19	44 366	16 238	12 420	8 591	1 787	332	83 735

Note: Data provided for 2018–19 are preliminary estimates and subject to change
No emissions from electricity use included.

Source: BITRE estimates.

Table T 9.6 Transport direct emissions, by transport mode, from energy end-use—carbon dioxide

Financial year	Road Vehicles	Rail (excluding electric)	Domestic maritime (including small craft)	Domestic aviation	Total (including off–road vehicles)
			gigagrams of CO_2		
1989–90	53 655	1 714	2 345	2 803	60 517
1990–91	52 562	1 706	2 042	3 481	59 791
1991–92	53 173	1 659	2 095	3 779	60 705
1992–93	54 783	1 661	1 905	3 965	62 314
1993–94	56 217	1 760	1 772	4 197	63 946
1994–95	58 357	1 716	2 269	4 947	67 289
1995–96	59 702	1 669	2 387	5 431	69 189
1996–97	60 654	1 700	2 378	5 800	70 532
1997–98	61 626	1 740	2 088	5 259	70 713
1998–99	62 713	1 789	1 928	5 064	71 494
1999–00	63 884	1 843	2 021	5 296	73 044
2000–01	63 402	1 813	1 928	5 902	73 046
2001–02	65 180	1 897	1 990	5 292	74 359
2002–03	66 939	1 948	2 061	5 049	75 996
2003–04	69 761	2 081	2 202	5 281	79 325
2004–05	70 240	2 255	2 323	5 765	80 583
2005–06	69 991	2 268	2 176	6 097	80 532
2006–07	71 384	2 445	2 238	6 597	82 663
2007–08	72 481	2 524	2 225	7 092	84 322
2008–09	72 301	2 527	2 181	7 269	84 278
2009–10	73 313	2 624	2 280	7 385	85 602
2010–11	74 548	2 702	2 328	7 907	87 485
2011–12	75 728	2 843	2 218	8 232	89 021
2012–13	76 463	2 960	2 024	8 771	90 218
2013–14	77 085	3 143	2 098	8 875	91 200
2014–15	77 629	3 347	2 128	8 869	91 973
2015–16	80 172	3 470	2 169	9 016	94 828
2016–17	81 546	3 585	2 164	9 084	96 379
2017–18	82 453	3 658	2 193	9 261	97 566
2018–19	82 219	3 733	2 129	9 231	97 312

Note: Data provided for 2018–19 are preliminary estimates and subject to change
No emissions from electricity use included.

Source: BITRE estimates.

Table T 9.7 Transport direct emissions, by transport mode, from energy end-use—methane

Financial year	Road Vehicles	Rail (excluding electric)	Domestic maritime (including small craft)	Domestic aviation	Total (including off–road vehicles)
			gigagrams of methane		
1989–90	23.25	1.24	2.34	0.29	27.11
1990–91	22.89	1.23	2.38	0.25	26.75
1991–92	23.27	1.20	2.50	0.24	27.22
1992–93	23.88	1.20	2.65	0.26	27.99
1993–94	24.23	1.27	2.79	0.26	28.55
1994–95	24.78	1.24	2.97	0.27	29.27
1995–96	24.81	1.21	3.12	0.27	29.41
1996–97	24.67	1.23	3.24	0.28	29.42
1997–98	24.49	1.26	3.34	0.28	29.36
1998–99	24.18	1.29	3.50	0.28	29.25
1999–00	23.74	1.33	3.67	0.28	29.02
2000–01	22.75	1.31	3.73	0.28	28.08
2001–02	22.45	1.37	3.87	0.26	27.95
2002–03	22.01	1.41	4.04	0.25	27.71
2003–04	21.91	1.50	4.25	0.25	27.92
2004–05	20.80	1.63	4.36	0.26	27.04
2005–06	19.14	1.64	4.10	0.26	25.14
2006–07	18.27	1.77	4.15	0.27	24.45
2007–08	17.22	1.82	4.19	0.28	23.52
2008–09	15.97	1.83	4.23	0.29	22.32
2009–10	15.03	1.90	4.35	0.29	21.57
2010–11	13.96	1.95	4.45	0.30	20.67
2011–12	12.89	2.05	4.56	0.30	19.81
2012–13	12.12	2.14	4.71	0.31	19.27
2013–14	11.38	2.27	4.57	0.31	18.54
2014–15	10.79	2.42	4.66	0.31	18.18
2015–16	10.36	2.51	4.74	0.31	17.91
2016–17	9.79	2.59	4.80	0.32	17.50
2017–18	9.30	2.64	4.85	0.32	17.11
2018–19	8.80	2.70	4.47	0.32	16.29

Note: Data provided for 2018–19 are preliminary estimates and subject to change.
No emissions from electricity use included.

Source: BITRE estimates.

Table T 9.8 Transport direct emissions, from energy end–use, by transport mode, from energy end–use—nitrous oxide

Financial year	Road Vehicles	Rail (excluding electric)	Domestic maritime (including small craft)	Domestic aviation	Total (including off–road vehicles)
			gigagrams of nitrous oxide		
1989–90	2.12	0.04	0.06	0.08	2.31
1990–91	2.36	0.04	0.06	0.10	2.56
1991–92	2.63	0.04	0.06	0.11	2.84
1992–93	2.94	0.04	0.05	0.11	3.15
1993–94	3.25	0.04	0.05	0.12	3.46
1994–95	3.61	0.04	0.06	0.14	3.86
1995–96	3.92	0.04	0.07	0.15	4.18
1996–97	4.15	0.04	0.07	0.17	4.42
1997–98	4.40	0.04	0.06	0.15	4.65
1998–99	4.68	0.04	0.05	0.14	4.92
1999–00	4.94	0.04	0.06	0.15	5.19
2000–01	5.07	0.04	0.05	0.17	5.34
2001–02	5.29	0.04	0.06	0.15	5.54
2002–03	5.37	0.05	0.06	0.14	5.61
2003–04	5.49	0.05	0.06	0.15	5.75
2004–05	5.33	0.05	0.06	0.16	5.61
2005–06	5.10	0.05	0.06	0.18	5.39
2006–07	5.03	0.06	0.06	0.19	5.35
2007–08	4.94	0.06	0.06	0.20	5.27
2008–09	4.80	0.06	0.06	0.21	5.12
2009–10	4.74	0.06	0.06	0.21	5.07
2010–11	4.69	0.06	0.07	0.22	5.03
2011–12	4.63	0.07	0.06	0.22	4.98
2012–13	4.59	0.07	0.06	0.23	4.95
2013–14	4.58	0.07	0.06	0.23	4.95
2014–15	4.54	0.07	0.06	0.24	4.91
2015–16	4.54	0.08	0.06	0.24	4.92
2016–17	4.61	0.08	0.06	0.24	4.99
2017–18	4.61	0.08	0.06	0.25	5.00
2018–19	4.57	0.08	0.06	0.25	4.96

Note: Data provided for 2018–19 are preliminary estimates and subject to change
No emissions from electricity use included.

Source: BITRE estimates.

Table T 9.9 Transport full fuel cycle greenhouse gas (carbon dioxide equivalent) emissions, by transport mode

Financial year	Road Vehicles	Rail (all)	Domestic maritime	Domestic aviation	Total (direct)
	gigagrams of CO_2 equivalent				
1976–77	41 419	3 116	4 092	2 962	51 589
1977–78	43 170	3 146	4 496	3 262	54 074
1978–79	45 213	3 152	4 078	3 093	55 537
1979–80	46 058	3 195	4 279	3 218	56 750
1980–81	47 055	3 220	4 325	3 199	57 799
1981–82	49 304	3 205	3 722	3 583	59 815
1982–83	48 776	3 038	3 394	3 453	58 660
1983–84	51 112	3 242	3 438	3 367	61 159
1984–85	53 118	3 435	3 278	3 460	63 291
1985–86	54 428	3 421	3 367	3 721	64 938
1986–87	55 452	3 539	3 339	3 821	66 151
1987–88	58 321	3 552	3 304	4 130	69 306
1988–89	60 613	3 604	3 039	4 056	71 312
1989–90	62 080	3 598	2 713	3 247	71 639
1990–91	60 908	3 583	2 363	4 034	70 889
1991–92	61 699	3 565	2 426	4 379	72 069
1992–93	63 646	3 518	2 208	4 596	73 968
1993–94	65 391	3 619	2 060	4 864	75 935
1994–95	67 967	3 625	2 636	5 734	79 962
1995–96	69 609	3 586	2 775	6 295	82 265
1996–97	70 777	3 704	2 764	6 723	83 968
1997–98	71 974	3 738	2 433	6 096	84 242
1998–99	73 301	3 841	2 253	5 870	85 265
1999–00	74 720	4 035	2 360	6 138	87 254
2000–01	74 210	4 066	2 262	6 841	87 379
2001–02	76 314	4 162	2 337	6 133	88 947
2002–03	78 337	4 211	2 422	5 852	90 822
2003–04	81 540	4 365	2 584	6 122	94 610
2004–05	82 017	4 612	2 712	6 680	96 021
2005–06	81 685	4 624	2 545	7 068	95 922
2006–07	83 320	4 903	2 614	7 648	98 485
2007–08	84 605	5 058	2 607	8 220	100 489
2008–09	84 399	5 130	2 553	8 426	100 508
2009–10	85 577	5 196	2 675	8 561	102 009
2010–11	87 008	5 271	2 742	9 164	104 186
2011–12	88 316	5 406	2 622	9 539	105 882
2012–13	89 155	5 459	2 423	10 160	107 198
2013–14	89 957	5 675	2 505	10 281	108 418
2014–15	90 735	5 975	2 542	10 277	109 528
2015–16	93 266	6 224	2 591	10 447	112 528
2016–17	94 841	6 325	2 587	10 525	114 278
2017–18	95 917	6 368	2 622	10 730	115 637
2018–19	95 650	6 449	2 542	10 697	115 339

Note: Data provided for 2018–19 are preliminary estimates and subject to change.
Does not include off-road recreational vehicles, which would typically contribute of the order of a further 100 Gg per annum.

Source: BITRE estimates.

Table T 9.10 Transport energy use, by transport mode

Financial year	Road Vehicles	Rail (excluding electric)	Rail (electric)	Domestic maritime (including small craft)	Domestic aviation	Total civil domestic transport
	petajoules (end–use, higher heating value)					
1975–76	506.0	26.9	2.5	45.0	37.5	617.9
1976–77	535.6	27.5	2.5	49.3	37.2	652.1
1977–78	558.2	27.8	2.5	54.2	41.0	683.7
1978–79	584.2	28.5	2.4	49.2	38.9	703.3
1979–80	594.7	28.5	2.6	51.6	40.4	717.9
1980–81	607.3	28.1	2.8	52.0	40.2	730.5
1981–82	636.0	27.7	2.8	44.7	45.0	756.3
1982–83	628.9	25.4	3.0	40.7	43.4	741.4
1983–84	658.5	27.6	3.1	40.8	42.3	772.3
1984–85	684.0	28.8	3.4	38.9	43.5	798.7
1985–86	700.8	28.0	3.8	40.0	46.7	819.3
1986–87	713.7	28.5	4.0	39.7	48.0	833.9
1987–88	750.3	28.0	4.3	39.2	51.9	873.7
1988–89	779.7	25.7	5.1	36.0	50.9	897.4
1989–90	798.3	24.8	5.5	32.1	40.8	901.5
1990–91	782.8	24.7	5.4	27.9	50.7	891.4
1991–92	792.3	24.0	5.5	28.6	55.0	905.4
1992–93	816.8	24.0	5.4	26.0	57.7	929.9
1993–94	838.7	25.4	5.4	24.3	61.0	954.8
1994–95	871.4	24.8	5.6	31.2	71.9	1 004.9
1995–96	891.7	24.1	5.5	32.9	78.9	1 033.2
1996–97	906.1	24.6	5.8	32.8	84.3	1 053.6
1997–98	920.8	25.1	5.8	28.8	76.5	1 056.9
1998–99	937.0	25.9	5.9	26.6	73.6	1 069.0
1999–00	954.5	26.6	6.4	27.9	77.0	1 092.4
2000–01	947.6	26.2	6.6	26.8	85.8	1 093.0
2001–02	974.5	27.4	6.6	27.7	76.9	1 113.1
2002–03	1 000.0	28.2	6.6	28.8	73.4	1 136.9
2003–04	1 040.6	30.1	6.7	30.6	76.8	1 184.8
2004–05	1 046.8	32.6	6.7	32.0	83.8	1 201.8
2005–06	1 044.2	32.8	6.8	30.1	88.6	1 202.4
2006–07	1 066.3	35.3	7.0	30.9	95.8	1 235.4
2007–08	1 083.9	36.5	7.3	30.9	103.0	1 261.6
2008–09	1 082.6	36.5	7.6	30.2	105.6	1 262.5
2009–10	1 098.0	37.9	7.5	31.8	107.3	1 282.4
2010–11	1 116.3	39.1	7.5	32.8	114.9	1 310.4
2011–12	1 132.8	41.1	7.6	31.4	119.6	1 332.5
2012–13	1 144.2	42.8	7.6	29.3	127.4	1 351.2
2013–14	1 156.8	45.4	7.6	30.3	128.9	1 369.0
2014–15	1 171.4	48.4	7.9	30.8	128.8	1 387.2
2015–16	1 192.5	50.1	8.4	31.4	130.9	1 413.3
2016–17	1 211.2	51.8	8.3	31.3	131.9	1 434.6
2017–18	1 224.1	52.9	8.3	31.8	134.5	1 451.5
2018–19	1 219.1	53.9	8.4	30.9	134.1	1 446.4

Note: Data provided for 2018–19 are preliminary estimates and subject to change
Source: BITRE estimates.

Table T 9.11 Road transport energy use, by vehicle type

Financial year	Cars	Light commercial vehicles	Articulated trucks	Rigid and other trucks	Buses	Motor cycles	Total road
	petajoules (end–use, higher heating value)						
1976–77	358.0	72.2	43.3	50.7	8.2	3.1	535.6
1977–78	372.5	78.6	44.8	50.6	8.4	3.3	558.2
1978–79	385.7	81.5	53.2	51.9	8.6	3.4	584.2
1979–80	385.6	81.0	57.6	57.7	9.1	3.7	594.7
1980–81	389.9	82.1	59.3	62.5	9.7	4.0	607.3
1981–82	406.0	83.9	63.0	68.7	10.1	4.4	636.0
1982–83	403.7	83.1	62.7	63.9	11.2	4.4	628.9
1983–84	419.0	88.7	70.4	63.7	12.2	4.5	658.5
1984–85	431.7	94.2	74.3	66.0	13.3	4.6	684.0
1985–86	444.0	97.4	76.0	64.9	14.2	4.2	700.8
1986–87	452.5	99.7	76.7	65.7	15.1	4.0	713.7
1987–88	473.1	104.9	82.6	69.7	16.1	3.9	750.3
1988–89	495.6	110.1	82.6	70.2	17.1	4.0	779.7
1989–90	510.8	111.6	80.8	73.2	18.2	3.6	798.3
1990–91	508.9	107.9	79.6	65.5	17.6	3.3	782.8
1991–92	517.6	111.1	80.3	63.1	17.0	3.3	792.3
1992–93	533.7	114.4	86.3	62.2	16.9	3.3	816.8
1993–94	547.0	117.9	88.8	64.4	17.3	3.2	838.7
1994–95	562.1	125.0	95.6	67.8	17.7	3.2	871.4
1995–96	568.6	129.4	100.6	71.8	18.2	3.1	891.7
1996–97	571.7	130.8	105.0	77.3	18.3	3.1	906.1
1997–98	574.7	136.5	109.5	78.4	18.7	3.0	920.8
1998–99	584.2	139.7	113.4	77.9	18.9	2.8	937.0
1999–00	593.5	142.3	117.1	79.2	19.5	2.9	954.5
2000–01	587.0	144.0	116.2	77.5	19.9	3.0	947.6
2001–02	600.6	149.9	120.3	80.4	20.1	3.2	974.5
2002–03	614.3	154.2	124.5	83.3	20.6	3.1	1 000.0
2003–04	643.3	159.0	129.2	85.0	20.8	3.3	1 040.6
2004–05	641.0	159.7	133.5	88.2	21.0	3.5	1 046.8
2005–06	625.9	164.1	136.9	91.9	21.5	3.8	1 044.2
2006–07	631.8	170.1	143.2	95.1	21.9	4.3	1 066.3
2007–08	634.2	177.6	147.3	97.9	22.2	4.7	1 083.9
2008–09	628.9	182.8	146.1	96.7	23.0	5.0	1 082.6
2009–10	630.7	189.9	148.7	99.5	23.8	5.4	1 098.0
2010–11	635.0	195.0	154.3	102.0	24.5	5.6	1 116.3
2011–12	638.0	200.1	160.2	104.6	25.3	4.7	1 132.8
2012–13	637.8	205.0	164.2	106.8	25.6	4.7	1 144.2
2013–14	639.4	209.1	168.5	109.0	25.9	4.8	1 156.8
2014–15	646.2	213.9	169.9	110.6	26.0	4.9	1 171.4
2015–16	657.6	219.4	171.5	112.9	26.0	4.9	1 192.5
2016–17	665.1	226.0	173.4	115.7	26.0	4.9	1 211.2
2017–18	664.8	234.0	175.3	119.0	26.1	4.9	1 224.1
2018–19	654.9	234.6	177.2	121.6	26.0	4.8	1 219.1

Note: Data provided for 2018–19 are preliminary estimates and subject to change.
Source: BITRE estimates.

Table T 9.12 Energy use of major land transport fuels

Financial year	Petrol (automotive gasoline, all grades)	Diesel (automotive and industrial diesel oil)	LPG	Natural gas (both compressed and liquefied)	Bio–fuels (ethanol & biodiesel, straight and mixtures)	Total
	petajoules (higher heating value)					
1976–77	464.92	113.20	3.41	0.00	0.00	581.53
1977–78	481.45	121.72	3.86	0.00	0.00	607.02
1978–79	493.25	134.78	4.61	0.00	0.00	632.65
1979–80	489.44	148.29	5.85	0.00	0.00	643.58
1980–81	492.65	153.78	7.17	0.00	0.00	653.60
1981–82	509.25	161.63	8.15	0.00	0.00	679.03
1982–83	497.30	161.85	9.14	0.00	0.00	668.28
1983–84	508.03	179.08	10.47	0.00	0.00	697.58
1984–85	519.95	193.02	11.83	0.00	0.00	724.81
1985–86	528.42	197.15	13.81	0.00	0.00	739.38
1986–87	532.59	206.38	15.78	0.12	0.00	754.88
1987–88	553.38	217.70	18.14	0.03	0.00	789.25
1988–89	573.14	221.97	20.71	0.06	0.00	815.89
1989–90	582.24	227.53	23.00	0.17	0.00	832.94
1990–91	569.04	218.89	27.94	0.30	0.00	816.17
1991–92	571.86	221.34	32.46	0.43	0.01	826.11
1992–93	582.58	229.17	38.12	0.53	0.02	850.42
1993–94	589.91	239.32	44.78	0.62	0.05	874.68
1994–95	598.29	255.00	55.09	0.72	0.12	909.23
1995–96	602.62	267.17	59.36	0.82	0.24	930.21
1996–97	602.86	278.03	63.43	0.88	0.37	945.56
1997–98	602.54	288.89	67.31	0.95	0.50	960.19
1998–99	611.21	297.63	67.04	1.04	0.70	977.62
1999–00	619.16	306.96	67.65	1.07	1.04	995.87
2000–01	613.72	306.99	65.06	1.12	1.59	988.48
2001–02	624.95	322.57	67.10	1.32	2.09	1 018.03
2002–03	636.41	338.82	66.95	1.41	1.81	1 045.41
2003–04	665.92	353.81	66.75	1.45	0.70	1 088.62
2004–05	665.52	368.08	61.62	1.51	0.67	1 097.40
2005–06	637.68	384.62	69.26	1.64	1.51	1 094.72
2006–07	645.66	405.92	62.72	1.79	4.14	1 120.22
2007–08	643.81	426.87	60.53	1.93	6.29	1 139.43
2008–09	631.84	436.27	58.90	2.09	8.16	1 137.25
2009–10	629.84	458.91	54.79	2.25	9.56	1 155.34
2010–11	623.33	486.38	53.19	2.50	10.44	1 175.84
2011–12	621.74	507.53	52.25	2.85	10.08	1 194.46
2012–13	617.63	525.48	52.00	3.50	10.80	1 209.40
2013–14	605.76	547.49	52.57	3.84	14.60	1 224.26
2014–15	605.02	560.51	51.10	4.02	21.52	1 242.17
2015–16	616.25	596.85	41.53	3.94	6.87	1 265.42
2016–17	622.20	619.76	33.71	3.84	6.67	1 286.19
2017–18	613.69	647.65	28.45	3.65	7.52	1 300.96
2018–19	588.27	675.26	23.67	3.54	7.34	1 298.09

Note: Data provided for 2018–19 are preliminary estimates and subject to change.
Source: BITRE estimates.

Table T 9.13 Other transport energy use

Financial year	Aviation gasoline	Aviation turbine fuel	Fuel oil	Coal	Electricity	Total
			petajoules (end–use)			
1975–76	3.37	34.14	30.31	0.32	2.51	70.66
1976–77	3.63	33.61	30.51	0.32	2.50	70.57
1977–78	3.77	37.23	32.84	0.31	2.51	76.66
1978–79	4.16	34.73	29.11	0.22	2.44	70.67
1979–80	3.77	36.67	31.08	0.16	2.59	74.27
1980–81	3.77	36.43	33.77	0.12	2.84	76.93
1981–82	3.74	41.28	29.32	0.09	2.84	77.26
1982–83	3.44	39.92	26.15	0.66	2.96	73.14
1983–84	3.57	38.73	25.55	3.75	3.10	74.71
1984–85	3.64	39.83	23.50	3.43	3.45	73.85
1985–86	3.57	43.16	26.08	3.33	3.77	79.91
1986–87	3.67	44.31	23.17	3.84	4.03	79.02
1987–88	3.91	47.96	24.77	3.55	4.27	84.46
1988–89	3.94	47.00	21.59	3.95	5.06	81.54
1989–90	4.30	36.54	18.79	3.51	5.46	68.59
1990–91	3.50	47.15	15.37	3.76	5.41	75.19
1991–92	3.30	51.66	14.82	4.00	5.51	79.29
1992–93	3.40	54.27	12.20	4.13	5.43	79.43
1993–94	3.30	57.73	9.76	3.93	5.41	80.13
1994–95	3.36	68.57	14.12	4.03	5.60	95.68
1995–96	3.26	75.68	14.50	3.99	5.54	102.97
1996–97	3.30	81.00	13.58	4.30	5.83	108.00
1997–98	3.35	73.11	10.28	4.24	5.77	96.75
1998–99	3.42	70.21	7.66	4.16	5.90	91.34
1999–00	3.41	73.57	8.71	4.44	6.44	96.57
2000–01	3.31	82.47	8.59	3.51	6.65	104.53
2001–02	3.15	73.76	8.06	3.51	6.58	95.07
2002–03	3.03	70.35	7.97	3.51	6.64	91.49
2003–04	2.91	73.84	8.68	4.01	6.70	96.15
2004–05	2.96	80.81	8.34	5.60	6.71	104.42
2005–06	2.80	85.79	7.53	4.80	6.80	107.72
2006–07	2.90	92.95	7.12	5.20	7.02	115.19
2007–08	2.85	100.19	7.51	4.40	7.26	122.20
2008–09	3.14	102.48	7.20	4.84	7.57	125.23
2009–10	2.62	104.66	8.20	4.13	7.47	127.07
2010–11	2.60	112.25	9.30	2.94	7.52	134.61
2011–12	2.78	116.80	8.30	2.52	7.60	138.00
2012–13	2.68	124.71	6.90	0.00	7.56	141.85
2013–14	2.40	126.48	8.25	0.00	7.62	144.75
2014–15	2.25	126.55	8.30	0.00	7.90	145.01
2015–16	2.23	128.70	8.51	0.00	8.41	147.85
2016–17	2.29	129.63	8.09	0.00	8.39	148.40
2017–18	2.19	132.29	7.72	0.00	8.37	150.57
2018–19	2.22	131.84	5.79	0.00	8.50	148.34

Note: Data provided for 2018–19 are preliminary estimates and subject to change.
Source: BITRE estimates.

PART E: Energy

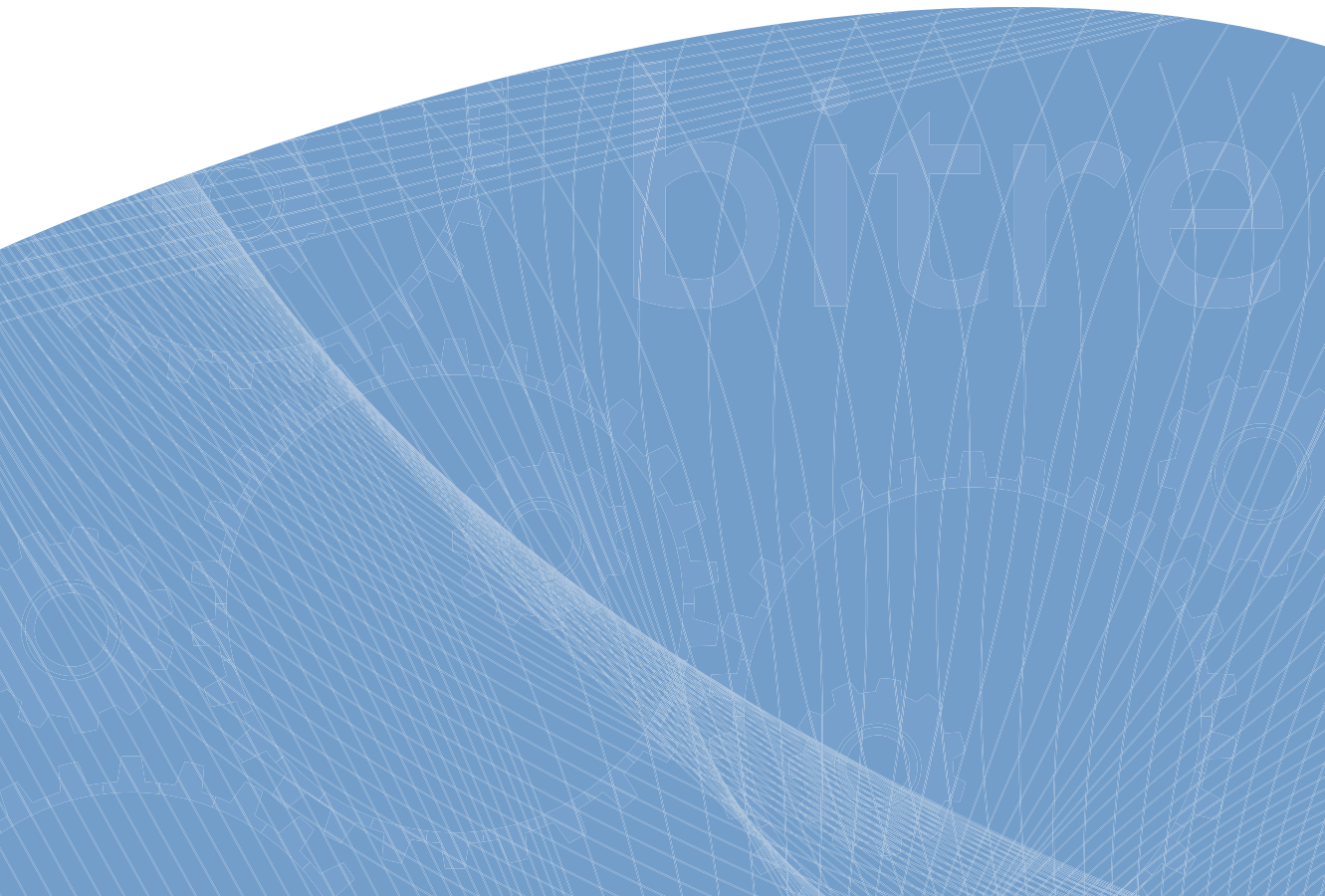
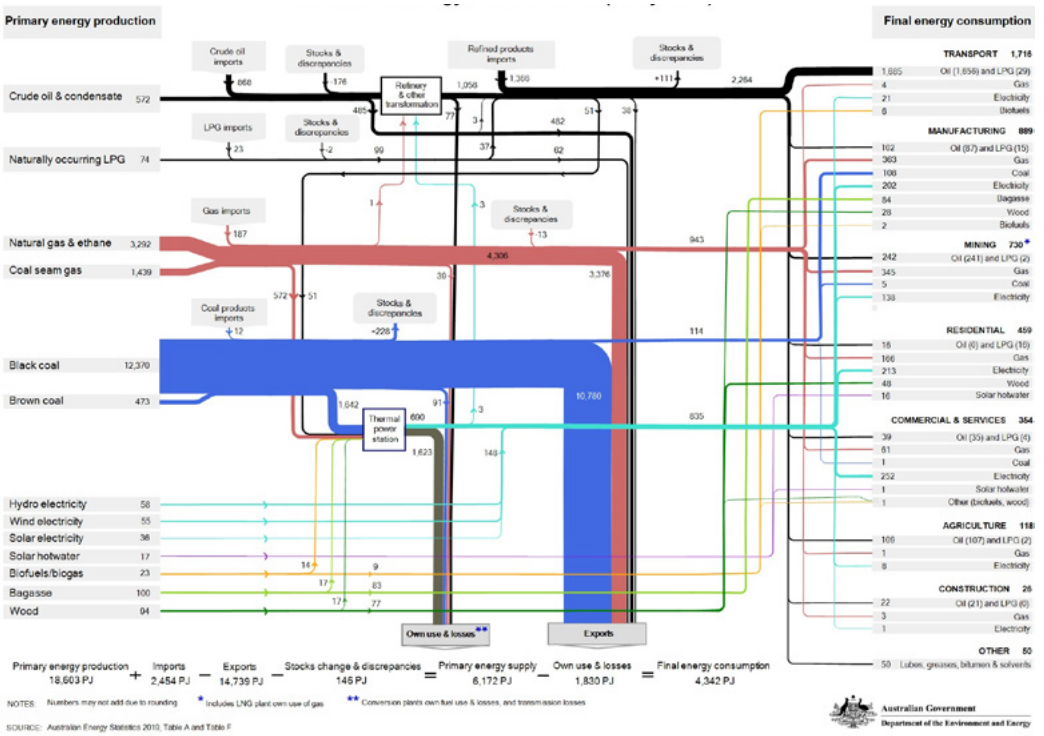


Figure E 1 Australian energy flows in petajoules, 2017–18



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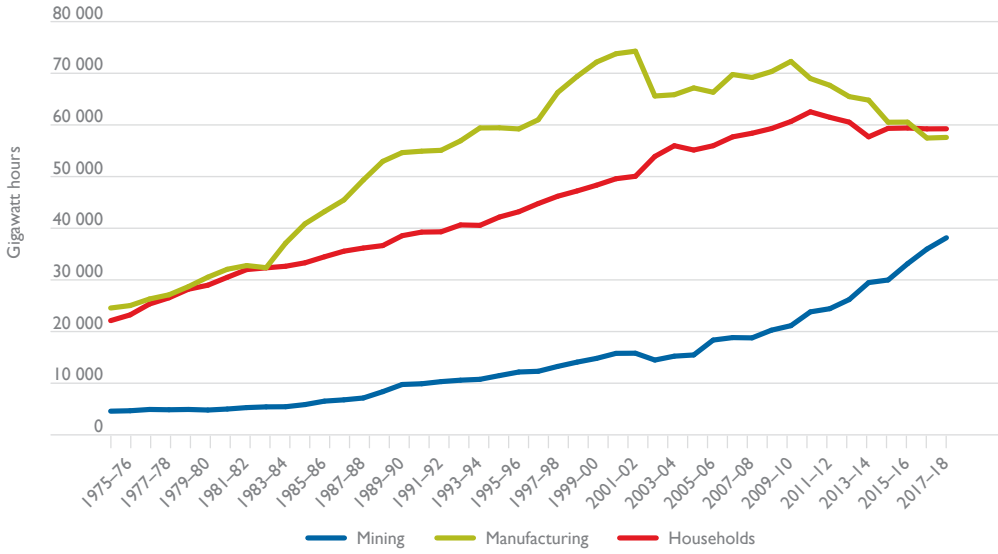
PART E
Energy

Statistics are provided for the production of energy, the conversion of primary forms of energy into electricity and the distribution of energy through electricity and gas networks.

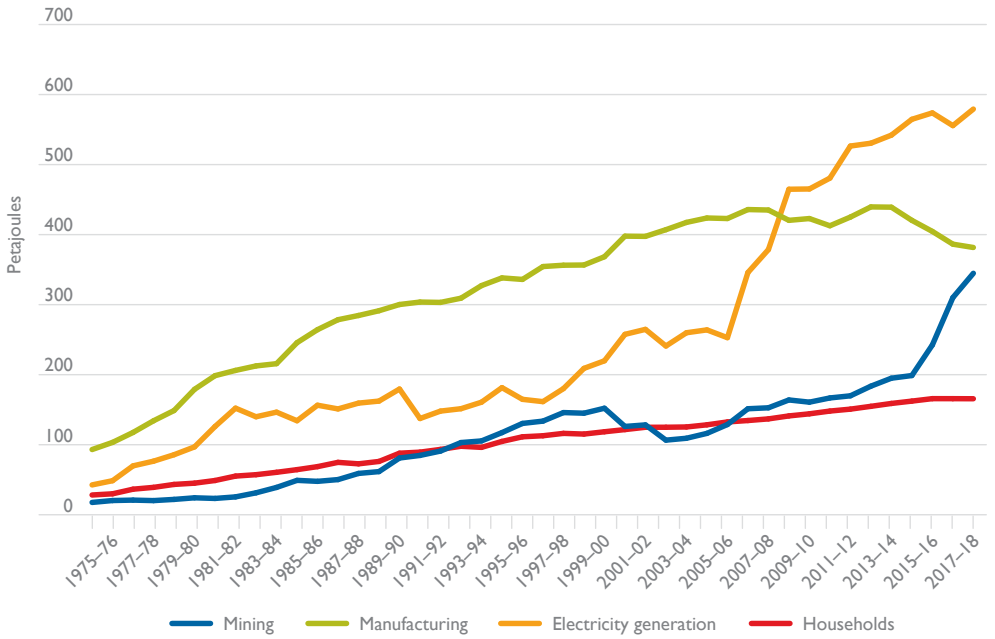
Figure E 2 Australian electricity consumption, by broad industry



Source: Industry (2019).

The three largest groups of electricity consumers are the manufacturing industry, households and the mining industry. The acceleration of electricity consumption by the manufacturing industry up to 2001–02 was influenced by a rapid increase in consumption by businesses manufacturing basic non–ferrous metals. Consumption by the mining industry increased significantly from 2010–11 to 2013–14. Household consumption peaked in 2009–10 and has declined since then.

Figure E 3 Australian gas consumption, by broad industry



Source: Industry (2019).

The consumption of gas by the electricity generation industry increased sharply since 2006–07. The growth reflected a sharp increase in gas consumption by the electricity generation industry in Western Australia and New South Wales.

CHAPTER 1
Energy infrastructure

Table E 1.1a Flow of new infrastructure—Value of energy infrastructure engineering construction work done by the private sector for the private sector, adjusted by chain volume index, 2016–17 prices

Financial year	Electricity generation, transmission and distribution	Pipelines	Energy infrastructure engineering construction work done	Energy percentage of total major infrastructure engineering construction work done
	$ million			*per cent*
1987-88	284.8	178.5	463.4	17.26
1988-89	231.9	201.3	433.2	14.73
1989-90	157.2	177.4	334.6	10.44
1990-91	194.9	140.6	335.5	11.10
1991-92	200.2	198.8	399.0	13.87
1992-93	157.9	374.4	532.4	17.56
1993-94	301.9	278.3	580.2	15.43
1994-95	319.0	333.7	652.7	17.43
1995-96	845.9	517.1	1 363.1	28.16
1996-97	777.9	449.6	1 227.5	24.28
1997-98	1 124.0	553.9	1 677.9	26.02
1998-99	1 378.2	738.6	2 116.8	28.29
1999-00	2 422.9	738.9	3 161.8	39.39
2000-01	2 521.5	409.1	2 930.6	40.65
2001-02	2 305.7	851.1	3 156.8	41.48
2002-03	2 188.8	1 507.9	3 696.7	35.80
2003-04	2 371.2	2 235.8	4 607.0	31.97
2004-05	3 252.2	1 056.2	4 308.5	26.06
2005-06	2 875.7	1 301.9	4 177.6	24.42
2006-07	4 008.1	1 203.5	5 211.6	25.08
2007-08	4 621.5	781.5	5 403.0	23.89
2008-09	6 009.6	1 016.7	7 026.3	29.93
2009-10	4 911.7	1 164.1	6 075.7	27.93
2010-11	4 718.3	1 956.1	6 674.5	25.37
2011-12	5 060.2	2 761.6	7 821.8	24.40
2012-13	7 388.5	4 401.6	11 790.1	32.07
2013-14	6 617.0	5 517.3	12 134.3	36.72
2014-15	3 893.3	6 277.0	10 170.3	38.48
2015-16	3 650.2	3 674.0	7 324.2	37.31
2016-17	4 808.9	1 078.3	5 887.1	29.90
2017-18	9 593.2	1 872.5	11 465.7	44.23
2018-19	10 059.3	1 658.0	11 717.2	45.39

Source: ABS (2019h).

Table E 1.1b Flow of new infrastructure—Value of energy infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index, 2016–17 prices

Financial year	Electricity generation, transmission and distribution	Pipelines	Energy infrastructure engineering construction work done	Energy percentage of total major infrastructure engineering construction work done
	$ million			*per cent*
1987–88	982.1	37.5	1 019.6	24.85
1988–89	913.9	86.1	1 000.0	27.23
1989–90	752.6	177.7	930.3	23.64
1990–91	1 269.1	87.0	1 356.1	28.09
1991–92	1 418.1	16.9	1 435.0	29.11
1992–93	1 182.5	46.4	1 228.8	23.06
1993–94	1 095.8	27.7	1 123.5	17.99
1994–95	839.7	80.9	920.6	16.84
1995–96	565.6	438.5	1 004.0	18.79
1996–97	974.5	151.6	1 126.0	18.94
1997–98	741.9	60.2	802.2	12.19
1998–99	465.3	23.3	488.7	6.94
1999–00	493.6	38.8	532.4	7.13
2000–01	433.9	47.1	481.0	6.92
2001–02	603.2	27.9	631.1	10.30
2002–03	718.4	14.0	732.4	11.62
2003–04	440.1	14.0	454.1	7.27
2004–05	749.3	14.9	764.2	9.18
2005–06	1 031.0	6.2	1 037.2	11.55
2006–07	651.3	4.4	655.6	7.11
2007–08	524.2	11.5	535.7	4.08
2008–09	745.0	3.9	748.9	4.80
2009–10	1 038.0	9.9	1 048.0	6.52
2010–11	1 066.4	33.2	1 099.6	6.50
2011–12	1 222.1	37.6	1 259.7	7.12
2012–13	1 499.4	40.4	1 539.8	8.69
2013–14	1 278.8	14.4	1 293.2	7.86
2014–15	711.9	9.7	721.6	4.96
2015–16	514.3	12.3	526.5	3.21
2016–17	388.1	9.7	397.8	1.98
2017–18	422.2	10.2	432.4	1.74
2018–19	336.0	4.2	340.2	1.57

Source: ABS (2019h).

Table E 1.1c Flow of new infrastructure—Value of energy infrastructure engineering construction work done by the public sector, adjusted by chain volume index, 2016–17 prices

Financial year	Electricity generation, transmission and distribution	Pipelines	Energy infrastructure engineering construction work done	Energy percentage of total major infrastructure engineering construction work done
	$ million			*per cent*
1987–88	1 502.7	133.5	1 636.2	15.51
1988–89	1 486.5	135.5	1 622.0	15.19
1989–90	2 118.5	120.6	2 239.1	18.34
1990–91	1 737.3	128.4	1 865.7	15.45
1991–92	1 581.5	88.7	1 670.2	16.27
1992–93	1 683.5	63.2	1 746.7	15.79
1993–94	1 571.2	211.4	1 782.6	16.80
1994–95	1 662.0	171.2	1 833.2	15.35
1995–96	1 194.7	177.9	1 372.5	11.21
1996–97	1 087.3	39.2	1 126.5	9.82
1997–98	1 150.6	66.1	1 216.7	10.65
1998–99	1 439.5	174.4	1 613.9	13.22
1999–00	1 911.1	51.6	1 962.7	14.63
2000–01	2 259.9	42.6	2 302.5	18.86
2001–02	2 423.1	53.6	2 476.7	20.40
2002–03	2 567.6	38.3	2 605.9	21.74
2003–04	2 936.9	33.5	2 970.4	25.44
2004–05	3 068.9	8.2	3 077.0	25.30
2005–06	4 192.1	159.1	4 351.3	29.21
2006–07	5 128.9	263.4	5 392.2	39.04
2007–08	5 604.1	38.2	5 642.3	42.54
2008–09	6 457.8	8.4	6 466.2	43.83
2009–10	6 758.3	7.0	6 765.3	41.28
2010–11	6 157.0	3.5	6 160.5	38.36
2011–12	6 511.8	1.3	6 513.1	40.98
2012–13	5 844.5	5.7	5 850.2	39.81
2013–14	4 841.7	0.2	4 842.0	41.87
2014–15	4 584.5	0.4	4 584.9	44.31
2015–16	3 659.8	0.5	3 660.3	36.01
2016–17	2 801.0	7.5	2 808.5	29.21
2017–18	2 341.6	0.4	2 342.0	24.30
2018–19	2 386.9	0.2	2 387.1	24.35

Source: ABS (2019h).

Table E 1.1d Flow of new infrastructure—Total value of energy infrastructure engineering construction work done, adjusted by chain volume index, 2016–17 prices

Financial year	Electricity generation, transmission and distribution	Pipelines	Energy infrastructure engineering construction work done	Energy percentage of total major infrastructure engineering construction work done
	$ million			*per cent*
1987–88	2 769.6	349.6	3 119.2	17.99
1988–89	2 632.3	422.9	3 055.2	17.67
1989–90	3 028.2	475.7	3 504.0	18.11
1990–91	3 201.3	355.9	3 557.3	17.85
1991–92	3 199.8	304.4	3 504.2	19.39
1992–93	3 023.9	484.0	3 507.9	18.06
1993–94	2 968.8	517.4	3 486.3	16.91
1994–95	2 820.8	585.8	3 406.6	16.10
1995–96	2 606.2	1 133.4	3 739.6	16.68
1996–97	2 839.7	640.4	3 480.0	15.49
1997–98	3 016.5	680.2	3 696.7	15.12
1998–99	3 283.0	936.4	4 219.4	15.79
1999–00	4 827.7	829.3	5 656.9	19.57
2000–01	5 215.3	498.8	5 714.1	21.67
2001–02	5 332.0	932.6	6 264.6	24.21
2002–03	5 474.9	1 560.1	7 035.0	24.58
2003–04	5 748.3	2 283.3	8 031.5	24.84
2004–05	7 070.4	1 079.3	8 149.7	22.02
2005–06	8 098.8	1 467.2	9 566.1	23.34
2006–07	9 788.2	1 471.3	11 259.4	25.70
2007–08	10 749.8	831.2	11 581.0	23.63
2008–09	13 212.4	1 029.0	14 241.4	26.46
2009–10	12 708.0	1 181.0	13 889.0	25.62
2010–11	11 941.7	1 992.9	13 934.5	23.50
2011–12	12 794.0	2 800.5	15 594.6	23.76
2012–13	14 732.4	4 447.7	19 180.1	27.73
2013–14	12 737.5	5 531.9	18 269.4	29.92
2014–15	9 189.6	6 287.1	15 476.7	30.15
2015–16	7 824.3	3 686.8	11 511.1	24.93
2016–17	7 997.9	1 095.5	9 093.4	18.43
2017–18	12 357.0	1 883.1	14 240.1	23.55
2018–19	12 782.1	1 662.4	14 444.5	25.19

Source: ABS (2019h).

Table E 1.2a Length of electricity transmission and distribution systems—overhead lines

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Snowy Mountains Hydro Electric Authority
	circuit kilometres								
1978–79	198 652	115 947	105 033	64 606	52 029	20 925	1 574	2 276	518
1979–80	203 846	117 103	110 057	65 573	57 787	21 276	1 663	2 316	518
1980–81	202 814	119 125	109 362	66 235	60 120	21 863	1 716	2 349	518
1981–82	211 235	120 305	113 637	66 882	62 379	22 175	2 092	2 452	518
1982–83	210 619	120 493	121 374	67 568	64 773	22 175	2 135	2 491	518
1983–84	213 987	121 805	126 237	68 245	66 501	23 016	2 484	2 540	518
1984–85	214 657	122 784	131 949	69 271	68 528	22 761	2 992	2 405	510
1985–86	235 346	124 089	137 527	69 646	70 706	23 277	2 992	2 543	510
1986–87	237 065	127 455	143 012	69 829	71 199	23 764	3 301	2 548	510
1987–88	239 878	128 709	149 643	70 094	71 642	24 153	3 349	2 605	510
1988–89	243 437	130 728	155 246	70 815	71 801	24 619	2 341	2 639	529
1989–90	241 851	147 892	160 962	71 416	88 615	25 400	3 408	2 627	529
1990–91	243 561	129 609	159 807	71 786	89 965	25 577	3 715	2 703	522
1991–92	246 283	121 509	162 503	71 873	91 849	25 464	3 925	2 708	522
1992–93	247 086	123 543	163 945	72 357	92 172	25 736	4 157	2 710	527
1993–94	254 487	124 224	166 113	81 557	74 896	25 947	4 861	2 717	425
1994–95									
1995–96									
1996–97									
1997–98	256 859	135 001	176 468	[a] 69 560	80 075	26 239	5 435		
1998–99	257 032	135 348	174 997	71 334	81 898	27 787	5 714		
1999–00	268 816	138 050	182 002	71 294	[b] 99 302	27 095	5 255		
2000–01	268 821	139 125	182 780	72 382	79 743	27 027	5 331		
2001–02	268 117	138 268	182 818	73 962	80 866	27 014	5 614		
2002–03	261 285	126 929	184 358	74 104	81 269	28 519	5 413		
2003–04	261 184	142 417	192 318	74 482	81 454	26 054	5 236		
2004–05	261 031	129 257	186 838	75 092	80 823	26 139	5 427		
2005–06	268 187	129 445	187 126	75 548	78 349	26 966	5 422		
2006–07	270 727	129 022	189 776	76 720	83 552	26 065	5 521		
2007–08	268 147	129 582	190 688	76 558	83 485	25 834	5 622		
2008–09	268 186	130 033	192 018	76 725	82 183	25 596	5 994		
2009–10	268 378	130 158	198 612	76 918	81 821	25 734	5 676		
2010–11	270 428	130 502	194 927	76 695	81 581	25 666	5 555		
2011–12	263 343	130 827	189 615	76 787	80 994	29 082	5 672		
2012–13	262 930	130 854	199 338	76 724	81 609	29 076	5 271		
2013–14	251 085	131 212	196 611	76 774	81 559	23 533	5 140		
2014–15	254 601	132 118	193 030	76 832	79 212	23 634	5 167		

[a] Measures of circuit kilometres for South Australia were recalculated in 1997–98 due to a field audit. Measures from 1997–98 onwards should not be compared with earlier estimates.

[b] Prior to 1999–2000, Western Australian estimates for circuit kilometres were compiled using a different methodology and should not be compared with later results.

Note: Decrease in overhead lines circuit kilometres between 2012–13 and 2013–14 is due to changes in reporting by businesses which took part in the survey.

Data are not readily available for missing years.

From 1997–98, the figures for ACT are included in the NSW total.

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.2b Length of electricity transmission and distribution systems—underground cables

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Snowy Mountains Hydro Electric Authority
	circuit kilometres								
1978–79	8 934	4 907	3 071	2 580	481	979	194	660	0
1979–80	9 729	4 918	3 318	2 858	579	1 039	245	744	0
1980–81	10 182	5 109	3 393	2 984	685	1 072	270	805	0
1981–82	12 850	5 271	3 702	3 199	843	1 111	333	908	0
1982–83	11 720	5 418	3 986	3 336	966	1 199	568	984	0
1983–84	12 299	5 613	4 244	3 640	1 081	1 058	702	1 029	0
1984–85	12 889	5 729	4 531	4 167	1 252	1 188	1 205	1 146	0
1985–86	15 977	6 162	4 837	4 822	1 478	1 246	1 205	1 232	0
1986–87	16 896	6 507	5 116	5 372	1 684	1 304	983	1 336	0
1987–88	17 504	7 010	5 305	5 795	1 872	1 360	993	1 382	0
1988–89	18 867	7 904	5 552	6 360	1 872	1 419	427	1 443	0
1989–90	19 572	8 749	5 877	6 824	2 552	1 470	1 059	1 528	0
1990–91	20 497	6 399	6 175	7 339	2 702	1 508	692	1 595	0
1991–92	21 324	5 792	6 436	7 700	2 772	1 534	724	1 721	3
1992–93	21 257	5 669	6 829	7 963	2 830	1 596	776	1 829	3
1993–94	23 210	5 764	7 238	7 954	4 541	1 627	825	1 920	4
1994–95									
1995–96									
1996–97									
1997–98	23 989	8 282	10 874	[a] 6 443	6 798	1 655	1 079		
1998–99	25 587	14 387	8 572	6 858	7 264	1 741	2 000		
1999–00	26 649	15 622	9 615	7 382	[b] 11 855	1 548	2 251		
2000–01	28 770	16 659	12 390	8 243	9 596	1 578	2 315		
2001–02	29 486	16 625	14 668	9 206	10 865	1 583	2 315		
2002–03	29 068	15 388	16 763	10 178	10 923	1 622	2 332		
2003–04	29 545	18 712	16 370	10 891	11 952	1 636	2 284		
2004–05	29 101	15 758	15 282	11 193	12 724	1 651	2 295		
2005–06	30 567	16 824	16 211	12 217	14 233	1 819	2 290		
2006–07	32 194	16 960	18 475	14 311	16 420	1 980	2 385		
2007–08	35 546	16 883	19 666	14 850	17 425	2 043	2 405		
2008–09	36 439	17 471	21 395	15 500	18 174	2 129	2 597		
2009–10	37 208	18 655	23 080	15 895	19 947	2 192	2 534		
2010–11	38 149	19 505	23 994	16 142	21 304	2 313	2 577		
2011–12	39 622	21 779	23 554	16 528	22 555	2 422	2 826		
2012–13	41 122	22 214	24 903	16 759	22 961	2 458	1 458		
2013–14	39 423	22 785	25 591	16 952	24 019	2 457	1 468		
2014–15	40 229	23 639	26 401	17 000	25 436	2 489	1 510		

[a] Measures of circuit kilometres for South Australia were recalculated in 1997–98 due to a field audit. Measures from 1997–98 onwards should not be compared with earlier estimates.

[b] Prior to 1999–2000, Western Australian estimates for circuit kilometres were compiled using a different methodology and should not be compared with later results.

Note: Decrease in underground cables between 2012–13 and 2013–14 is due to changes in reporting by businesses which took part in the survey.

Data are not readily available for missing years.

From 1997–98, the figures for ACT are included in the NSW total.

Source: esaa (2005), esaa (2015), AEC (2019)

Table E 1.3a Infrastructure capacity—generation capacity, by type of plant—New South Wales

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Total
					megawatts				
1979–80	370		7 345	48	24	0	0		7 788
1980–81	370		7 846	50	24	0	0		8 290
1981–82	370		8 506	50	319	0	0		9 245
1982–83	370		9 150	44	319	0	0		9 883
1983–84	370		10 470	44	319	0	0		11 204
1984–85	370		10 905	44	319	0	0		11 639
1985–86	370		10 826	43	319	0	0		11 558
1986–87	370		11 459	41	269	0	0		12 138
1987–88	345		11 496	37	295	0	0		12 172
1988–89	345		11 336	38	295	0	0		12 014
1989–90	345		10 775	28	295	0	0		11 443
1990–91	345		10 175	1	295	0	0		10 816
1991–92	345		10 215	1	295	0	0		10 856
1992–93	345		10 875	1	295	0	0		11 516
1993–94	345		11 535	1	295	0	0		12 176
1994–95									12 177
1995–96									12 177
1996–97									12 201
1997–98	120	240	11 520	0	295	0	0		12 175
1998–99 [c]	25	240	11 520	0	250	162			12 197
1999–00	25	240	11 520	0	146	162			12 093
2000–01	25	240	11 670	0	100	162			12 197
2001–02	25	240	11 670	0	50	162			12 147
2002–03	29	240	11 750	0	50	162	0		12 231
2003–04	[d] 109	240	11 670	0	50	160	0		12 229
2004–05	109	240	11 670	0	50	160	0		12 229
2005–06	109	240	11 670	0	50	160	0		12 229
2006–07	109	240	11 730	0	50	160	0	0	12 289
2007–08	109	240	11 730	0	50	160	0	0	12 289
2008–09 [e]	2 285	240	11 730	0	690	595	0	0	15 540
2009–10	2 285	240	11 797	0	1 438	595	0	0	16 355
2010–11	2 285	240	11 937	0	1 382	595	0	0	16 439
2011–12	2 285	240	11 937	0	1 382	595	95	0	16 534
2012–13	2 285	240	11 284	0	1 434	591	95	0	15 929
2013–14	2 285	240	11 504	0	1 378	591	260	0	16 258
2014–15	2 285	240	10 504	0	1 434	591	528	122	15 512
2015–16	2 285	240	10 360	0	1 434	591	480	231	15 621
2016–17	2 285	240	10 360	0	1 434	591	480	231	15 621
2017–18	2 285	240	10 360	0	1 438	591	949	332	16 195

[c] From 1998–99, non–schedule small hydro plants are excluded from estimates.

[d] From 2003–04, generation capacity of Blowering is included in NSW hydro figures, where previously they were shown in Snowy Mountains Hydro Electric Authority.

[e] The Snowy region was abolished on 1 July 2008. Generation plant previously included within the Snowy region have been reallocated to New South Wales and Victoria.

Note: Parkes Solar Farm (50.5 MW) and Manildra Solar Farm (50 MW) was commissioned in March and April 2018 respectively. Sapphire Wind Farm (270 MW) and Silverton Wind Farm (199 MW) was commissioned in February and May 2018 respectively. Data are not readily available for missing years. Figures represent commissioned scheduled and semi–scheduled generators only and exclude embedded, non–grid private generators and non–scheduled intermittent generators. ACT figures are included in the NSW total.

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.3b Infrastructure capacity—generation capacity, by type of plant—Victoria

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Total
					megawatts				
1980–81	469		3 749	0	465	0	0		4 683
1981–82	469		4 301	0	465	0	0		5 235
1982–83	469		4 301	0	465	0	0		5 235
1983–84	469		4 801	0	465	0	0		5 735
1984–85	469		4 560	0	465	0	0		5 494
1985–86	469		4 960	0	465	0	0		5 894
1986–87	469		5 460	0	465	0	0		6 394
1987–88	469		5 460	0	465	0	0		6 394
1988–89	469		5 720	0	465	0	0		6 654
1989–90	469		5 720	0	465	0	0		6 654
1990–91	469		5 720	0	465	0	0		6 654
1991–92	469		5 720	0	465	0	0		6 654
1992–93	469		5 720	0	465	0	0		6 654
1993–94	469		6 050	0	466	0	0		6 985
1994–95									7 155
1995–96									7 155
1996–97									7 673
1997–98	479	0	6 881	0	295	0	0		7 826
1998–99 [c]	453	0	6 891	0	466	0			7 810
1999–00	453	0	6 905	0	466	0			7 824
2000–01	453	0	6 905	0	506	0			7 864
2001–02	453	0	6 905	0	979	0			8 337
2002–03	490	0	6 950	0	1 001	0	0		8 441
2003–04	[d] 511	0	7 015	0	1 001	0	0		8 527
2004–05	511	0	7 065	0	1 001	0	0		8 577
2005–06	526	0	7 065	0	1 001	0	0		8 592
2006–07	526	0	7 065	0	1 321	0	0	0	8 912
2007–08	526	0	7 065	0	1 321	0	0	0	8 912
2008–09 [e]	2 026	0	7 065	0	1 321	0	0	0	10 412
2009–10	2 176	0	7 065	0	1 321	0	0	0	10 562
2010–11	2 206	0	7 140	0	1 321	0	0	0	10 667
2011–12	2 206	0	7 140	0	1 871	0	67	0	11 284
2012–13	2 206	0	7 318	0	1 889	0	487	0	11 900
2013–14	2 206	0	7 335	0	1 889	0	618	0	12 048
2014–15	2 206	0	7 335	0	1 889	0	725	0	11 966
2015–16	2 206	0	6 986	0	1 889	0	725	0	11 806
2016–17	2 206	0	6 986	0	1 889	0	725	0	10 286
2017–18	2 211	0	5 270	0	1 438	0	1 046	50	10 466

[c] From 1998–99, non–schedule small hydro plants are excluded from estimates.

[d] From 2003–04, generation capacity of Blowering is included in NSW hydro figures, where previously they were shown in Snowy Mountains Hydro Electric Authority.

[e] The Snowy region was abolished on 1 July 2008. Generation plant previously included within the Snowy region have been reallocated to New South Wales and Victoria.

Note: Hazelwood Power Station (1,760 MW) was officially closed on 31 March, 2017. Gannawarra Solar Farm (50 MW) began its operation in April 2018. Ararat Wind Farm (240 MW) was fully operated in April 2017. Kiata Wind Farm (31 MW) commissioned in January 2018, and Salt Creek Wind Farm (54 MW) commissioned in June 2018. Data are not readily available for missing years. Figures represent commissioned scheduled and semi–scheduled generators only and exclude embedded, non–grid private generators and non–scheduled intermittent generators.

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.3c Infrastructure capacity—generation capacity, by type of plant—Queensland[f]

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Total
					megawatts				
1979–80	132		2 696	49	163	0	0		3 040
1980–81	132		2 971	48	163	0	0		3 314
1981–82	132		3 246	50	163	0	0		3 591
1982–83	132		3 246	58	178	0	0		3 614
1983–84	382		3 596	60	178	0	0		4 216
1984–85	632		3 946	60	178	0	0		4 816
1985–86	632		3 906	60	178	0	0		4 776
1986–87	632		3 752	59	178	0	0		4 621
1987–88	632		4 042	46	178	0	0		4 898
1988–89	632		4 242	41	178	0	0		5 093
1989–90	632		4 242	46	178	0	0		5 098
1990–91	632		4 242	41	178	0	0		5 093
1991–92	632		4 428	47	178	0	0		5 285
1992–93	632		4 910	29	178	0	0		5 749
1993–94	632		5 435	28	188	0	0		6 283
1994–95									6 896
1995–96									7 040
1996–97									7 041
1997–98	132	500	6 353	29	250	0	0		7 264
1998–99[c]	132	500	6 517	0	736	216			8 101
1999–00	139	500	6 517	0	1 025	214			8 395
2000–01	139	500	6 937	0	1 026	214			8 816
2001–02	132	500	8 105	0	1 478	476			10 691
2002–03	132	500	8 394	0	1 201	419	0		10 646
2003–04	132	500	8 464	0	1 223	158	0		10 477
2004–05	144	500	8 187	0	741	840	0		10 412
2005–06	144	500	8 187	0	741	840	0		10 412
2006–07	144	500	8 187	0	1 245	840	0	0	10 916
2007–08	144	500	8 937	0	1 245	840	0	0	11 666
2008–09	144	500	8 937	0	1 695	840	0	0	12 116
2009–10	144	500	8 937	0	1 883	1 610	0	0	13 074
2010–11	144	500	8 937	0	2 043	1 610	0	0	13 234
2011–12	144	500	8 937	0	2 043	1 610	0	0	13 234
2012–13	152	500	8 416	0	2 028	1 626	0	0	12 722
2013–14	152	500	8 244	0	2 083	1 840	0	0	12 819
2014–15	152	500	8 177	0	2 080	1 841	0	0	12 750
2015–16	152	500	8 177	0	2 080	1 823	0	0	12 732
2016–17	152	500	8 196	0	2 081	1 824	0	0	12 753
2017–18	152	570	8 196	0	2 081	1 822	0	274	13 095

[c] From 1998–99, non–schedule small hydro plants are excluded from estimates.

[f] Prior to 2003–04, Queensland generation capacity did not include generating capacity at Mt Isa.

Note: Clare Solar Farm (100 MW) and Sun Metals Solar Farm (124 MW) started exporting electricity to the grid in May 2018. Kidston Solar Farm stage 1 (50 MW) was completed in November 2017. Data are not readily available for missing years. Figures represent commissioned scheduled and semi–scheduled generators only and exclude embedded, non–grid private generators and non–scheduled intermittent generators.

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.3d Infrastructure capacity—generation capacity, by type of plant—South Australia

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Battery Storage	Total
					megawatts					
1979–80	0		1 655	13	231	0	0			1 899
1980–81	0		1 855	14	231	0	0			2 100
1981–82	0		1 855	16	231	0	0			2 102
1982–83	0		1 855	17	231	0	0			2 103
1983–84	0		1 855	17	321	0	0			2 193
1984–85	0		2 105	17	321	0	0			2 443
1985–86	0		2 355	17	321	0	0			2 693
1986–87	0		2 355	18	321	0	0			2 694
1987–88	0		2 355	19	321	0	0			2 695
1988–89	0		2 265	19	321	0	0			2 605
1989–90	0		2 025	22	321	0	0			2 368
1990–91	0		2 025	21	321	0	0			2 367
1991–92	0		2 025	21	321	0	0			2 367
1992–93	0		2 025	15	321	0	0			2 361
1993–94	0		1 905	21	321	0	0			2 247
1994–95										2 248
1995–96										2 248
1996–97										2 322
1997–98	0	0	2 080	0	246	0	0			2 326
1998–99	0	0	2 040	0	359	180				2 579
1999–00	0	0	2 010	0	429	180				2 619
2000–01	0	0	2 040	0	439	658				3 137
2001–02	0	0	2 040	0	759	680				3 479
2002–03	0	0	2 040	0	759	660	0			3 459
2003–04	0	0	2 040	0	718	663	0			3 421
2004–05	0	0	2 050	40	718	663	0			3 471
2005–06	0	0	2 050	40	718	663	0			3 471
2006–07	0	0	2 060	50	718	663	0	0		3 491
2007–08	0	0	2 060	50	718	663	95	0		3 586
2008–09	0	0	2 060	50	846	663	353	0		3 972
2009–10	0	0	2 060	50	846	663	481	0		4 100
2010–11	0	0	2 060	50	890	663	764	0		4 426
2011–12	0	0	2 060	50	890	663	816	0		4 479
2012–13	0	0	2 066	50	920	663	815	0		4 514
2013–14	0	0	2 064	50	920	663	1 085	0		4 782
2014–15	0	0	2 066	50	920	663	1 085	0		4 784
2015–16	0	0	1 280	128	920	663	1 085	0		4 076
2016–17	0	0	1 280	128	919	663	1 310	0		4 300
2017–18	0	0	1 280	128	919	662	1 420	110	130	4 650

Note: Data are not readily available for missing years. Hornsdale Power Reserve Unit 1 (100 MW) battery storage and Dalrymple North begins its operational in December 2017 and June 2018 respectively. Bungala One Solar Farm (110 MW) was connected to the grid in May 2018. Hornsdale Wind Farm Stage 1 began its operation in June 2016 and Stage 2 began in February 2017 (total 204.8 MW). Hornsdale Wind Farm Stage 3 begins operational at the end of 2017. Figures represent commissioned scheduled and semi–scheduled generators only and exclude embedded, non–grid private generators and non–scheduled intermittent generators.

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.3e Infrastructure capacity—generation capacity, by type of plant—Western Australia

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Total
					megawatts				
1979–80	2		1 395	128	40	0	0		1 565
1980–81	2		1 595	156	40	0	0		1 793
1981–82	2		1 795	162	40	0	0		1 999
1982–83	2		1 740	169	40	0	0		1 951
1983–84	2		1 740	172	40	0	0		1 954
1984–85	2		1 915	155	60	0	0		2 132
1985–86	2		2 040	162	60	0	0		2 264
1986–87	2		2 040	170	60	0	0		2 272
1987–88	0		2 040	172	60	0	0		2 272
1988–89	0		2 040	180	60	0	0		2 280
1989–90	0		2 040	184	240	0	0		2 464
1990–91	0		2 040	192	312	0	0		2 544
1991–92	2		2 040	181	596	0	0		2 819
1992–93	2		2 040	175	596	0	0		2 813
1993–94	2		2 042	198	712	0	2		2 956
1994–95									2 958
1995–96									2 958
1996–97									3 086
1997–98	2	0	2 040	116	932	0	2		3 092
1998–99 [c]	2	0	2 370	131	806	0			3 308
1999–00	2	0	2 310	130	838	0			3 280
2000–01	2	0	2 406	105	802	0			3 315
2001–02	2	0	2 406	106	802	0			3 316
2002–03	2	0	2 250	98	802	0	25		3 273
2003–04	2	0	2 348	0	958	240	22		3 570
2004–05	2	0	2 250	0	958	240	23		3 473
2005–06	2	0	2 250	0	960	240	23		3 475
2006–07 [g]	0	0	2 477	0	2 110	360	191		4 887
2007–08	0	0	2 477	0	2 110	360	191	0	5 138
2008–09	0	0	2 445	0	2 110	680	191	0	5 426
2009–10	0	0	2 653	0	2 440	680	191	0	5 964
2010–11	0	0	2 653	0	2 440	800	191	0	6 084
2011–12	0	0	2 653	0	2 440	800	410	0	6 303
2012–13	0	0	2 653	0	2 531	800	464	0	6 448
2013–14	0	0	2 670	0	2 536	800	465	0	6 470
2014–15	0	0	2 575	1	2 575	800	476	0	6 429
2015–16	0	0	2 229	0	2 715	800	465	0	6 208
2016–17	0	0	2 229	0	2 594	812	465	0	6 100
2017–18	0	0	1 989	0	2 610	811	466	0	5 875

[c] From 1998–99, non–schedule small hydro plants are excluded from estimates.

[g] The Wholesale Electricity Market commenced in WA in September 2006. From 2006–07, generation capacity includes all market generators in the SWIS with a capacity greater than 10 MW.

Note: Principal generation capacity includes all market generators in the SWIS with a capacity of at least 10 MW. Muja AB was decommissioned in September 2018. Data are not readily available for missing years. Figures represent commissioned scheduled and semi–scheduled generators only and exclude embedded, non–grid private generators and non–scheduled intermittent generators.

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.3f Infrastructure capacity—generation capacity, by type of plant—Tasmania

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Total
					megawatts				
1979–80	1 540		240	2	0	0	0		1 782
1980–81	1 540		240	2	0	0	0		1 782
1981–82	1 620		240	2	0	0	0		1 862
1982–83	1 620		240	2	0	0	0		1 863
1983–84	1 700		240	2	0	0	0		1 943
1984–85	1 700		240	3	0	0	0		1 943
1985–86	1 816		240	5	0	0	0		2 061
1986–87	1 931		240	5	0	0	0		2 176
1987–88	2 075		240	5	0	0	0		2 320
1988–89	2 075		240	5	0	0	0		2 320
1989–90	2 075		240	5	0	0	0		2 320
1990–91	2 076		240	5	0	0	0		2 321
1991–92	2 219		240	5	0	0	0		2 464
1992–93	2 195		240	6	0	0	0		2 441
1993–94	2 254		240	6	0	0	0		2 500
1994–95									2 509
1995–96									2 509
1996–97									2 502
1997–98	2 262	0	240	6	0	0	1		2 509
1998–99 [c]	2 262	0	240	6	0	0			2 508
1999–00	2 262	0	240	6	0	0			2 508
2000–01	2 262	0	240	6	0	0			2 508
2001–02	2 276	0	240	26	0	0			2 542
2002–03	2 276	0	240	26	0	0	0		2 542
2003–04	2 266	0	240	0	0	0	65		2 571
2004–05	2 265	0	240	0	0	0	65		2 570
2005–06	2 278	0	240	0	0	0	65		2 583
2006–07	2 274	0	240	0	105	0	140		2 759
2007–08	2 274	0	240	0	105	0	140	0	2 759
2008–09	2 274	0	0	0	165	210	140	0	2 789
2009–10	2 283	0	0	0	283	208	140	0	2 914
2010–11	2 283	0	0	0	283	208	140	0	2 914
2011–12	2 283	0	0	0	283	208	140	0	2 914
2012–13	2 277	0	0	0	298	208	308	0	3 090
2013–14	2 277	0	0	0	298	208	308	0	3 090
2014–15	2 277	0	0	0	298	208	308	0	3 090
2015–16	2 276	0	0	0	298	208	308	0	3 090
2016–17	2 276	0	0	0	298	208	308	0	3 090
2017–18	2 276	0	0	0	298	208	308	0	3 090

[c] From 1998–99, non–schedule small hydro plants are excluded from estimates.

Note: Data are not readily available for missing years.

Figures represent commissioned scheduled and semi–scheduled generators only and exclude embedded, non–grid private generators and non–scheduled intermittent generators.

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.3g Infrastructure capacity—generation capacity, by type of plant—Northern Territory[h]

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Total
					megawatts				
1979–80	0		141	47	40	0	0		228
1980–81	0		141	56	40	0	0		237
1981–82	0		141	62	40	0	0		243
1982–83	0		141	66	40	0	0		247
1983–84	0		141	66	40	0	0		247
1984–85	0		141	72	30	0	0		243
1985–86	0		141	72	30	0	0		243
1986–87	0		141	81	190	0	0		412
1987–88	0		0	72	162	95	0		330
1988–89	0		0	69	175	95	0		340
1989–90	0		0	92	175	95	0		362
1990–91	0		0	94	180	95	0		369
1991–92	0		0	99	184	95	0		378
1992–93	0		0	99	186	95	0		381
1993–94	0		0	85	188	95	0		368
1994–95									417
1995–96									427
1996–97									436
1997–98	0	0	0	101	209	124	0		434
1998–99	0	0	0	103	229	124			455
1999–00	0	0	0	149	229	123			500
2000–01	0	0	0	136	236	123			495
2001–02	0	0	0	136	245	123			504
2002–03	0	0	0	136	245	123	0		504
2003–04	0	0	0	36	316	96	0		449
2004–05	0	0	0	74	277	131	0		482
2005–06	0	0	0	72	272	131	0		475
2006–07	0	0	0	74	266	131	0	0.2	472
2007–08	0	0	0	76	309	131	0	0.2	516
2008–09	0	0	0	76	352	131	0	0.2	560
2009–10	0	0	0	77	352	131	0	0.2	561
2010–11	0	0	0	77	352	131	0	0.2	561
2011–12	0	0	0	99	420	131	0	0.2	649
2012–13	0	0	0	97	416	122	0	0.2	636
2013–14	0	0	0	100	512	122	0	0.2	735
2014–15	0	0	0	97	482	122	0	0.2	702
2015–16	0	0	0	97	482	122	0	0.2	702
2016–17	0	0	0	108	474	122	0	0.2	704
2017–18	0	0	0	108	474	121	0	0.2	704

[h] The basis for reporting generating plant in Northern Territory changed in 2003–04 and should not be compared to previous years.

Note: Data are not readily available for missing years.
Figures represent commissioned scheduled and semi–scheduled generators only and exclude embedded, non–grid private generators and non–scheduled intermittent generators.

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.3h Infrastructure capacity—generation capacity, by type of plant—Snowy Mountains Hydro Electric Authority

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Total
					megawatts				
1975–76	3 740		0	0	0	0	0		3 740
1976–77	3 740		0	0	0	0	0		3 740
1977–78	3 740		0	0	0	0	0		3 740
1978–79	3 740		0	0	0	0	0		3 740
1979–80	3 740		0	0	0	0	0		3 740
1980–81	3 740		0	0	0	0	0		3 740
1981–82	3 740		0	0	0	0	0		3 740
1982–83	3 740		0	0	0	0	0		3 740
1983–84	3 740		0	0	0	0	0		3 740
1984–85	3 740		0	0	0	0	0		3 740
1985–86	3 740		0	0	0	0	0		3 740
1986–87	3 740		0	0	0	0	0		3 740
1987–88	3 740		0	0	0	0	0		3 740
1988–89	3 740		0	0	0	0	0		3 740
1989–90	3 740		0	0	0	0	0		3 740
1990–91	3 740		0	0	0	0	0		3 740
1991–92	3 740		0	0	0	0	0		3 740
1992–93	3 740		0	0	0	0	0		3 740
1993–94	3 740		0	0	0	0	0		3 740
1994–95									3 756
1995–96									3 756
1996–97									3 756
1997–98	3 006	750	0	0	0	0	0		3 756
1998–99 [c]	3 006	750	0	0	0	0			3 756
1999–00	3 006	750	0	0	0	0			3 756
2000–01	3 006	750	0	0	0	0			3 756
2001–02	3 006	750	0	0	0	0			3 756
2002–03	3 006	750	0	0	0	0	0		3 756
2003–04	3 000	676	0	0	0	0	0		3 676
2004–05	3 676	0	0	0	0	0	0		3 676
2005–06	3 676	0	0	0	0	0	0		3 676
2006–07	3 676	0	0	0	0	0	0	0	3 676
2007–08 [e]	3 676	0	0	0	0	0	0	0	3 676

[c] From 1998–99, non–schedule small hydro plants are excluded from estimates.

[d] From 2003–04, generation capacity of Blowering is included in NSW hydro figures, where previously they were shown in Snowy Mountains Hydro Electric Authority.

[e] The Snowy region was abolished on 1 July 2008. Generation plant previously included within the Snowy region have been reallocated to New South Wales and Victoria.

Note: Data are not readily available for missing years.

Figures represent commissioned scheduled and semi–scheduled generators only and exclude embedded, non–grid private generators and non–scheduled intermittent generators.

Source: esaa (2005) and esaa updates.

Table E 1.3i Infrastructure capacity—generation capacity, by type of plant—Australia

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photovoltaic	Battery Storage	Total
	megawatts									
1979–80	2 363	0	16 789	286	963	0	0	0	0	20 402
1980–81	2 513	0	18 397	325	963	0	0	0	0	22 198
1981–82	2 593	0	20 084	341	1 258	0	0	0	0	24 276
1982–83	2 593	0	20 673	356	1 273	0	0	0	0	24 895
1983–84	2 923	0	22 843	361	1 363	0	0	0	0	27 490
1984–85	3 173	0	23 812	352	1 373	0	0	0	0	28 710
1985–86	3 289	0	24 468	359	1 373	0	0	0	0	29 488
1986–87	3 404	0	25 447	372	1 483	0	0	0	0	30 706
1987–88	3 521	0	25 633	350	1 481	95	0	0	0	31 080
1988–89	3 521	0	25 843	352	1 494	95	0	0	0	31 305
1989–90	3 521	0	25 042	377	1 674	95	0	0	0	30 709
1990–91	3 522	0	24 442	355	1 751	95	0	0	0	30 164
1991–92	3 666	0	24 668	354	2 039	95	0	0	0	30 823
1992–93	3 642	0	25 810	325	2 041	95	0	0	0	31 914
1993–94	3 701	0	27 207	339	2 170	95	2	0	0	33 514
1994–95										34 360
1995–96										34 514
1996–97										35 261
1997–98	2 995	740	29 114	252	2 227	124	3	0	0	35 626
1998–99	2 874	740	29 578	240	2 845	682	0	0	0	36 958
1999–00	2 881	740	29 502	285	3 133	679	0	0	0	37 219
2000–01	2 881	740	30 198	247	3 109	1 157	0	0	0	38 332
2001–02	2 888	740	31 366	268	4 313	1 441	0	0	0	41 016
2002–03	2 929	740	31 624	260	4 058	1 364	25	0	0	41 096
2003–04	3 020	740	31 777	36	4 266	1 317	87	0	0	41 244
2004–05	3 031	740	31 462	114	3 745	2 034	87	0	0	41 213
2005–06	3 059	740	31 462	112	3 742	2 034	87	0	0	41 236
2006–07	3 053	740	31 759	124	5 815	2 154	331	0	0	43 725
2007–08	3 053	740	32 509	126	5 858	2 154	425	0	0	44 866
2008–09	6 729	740	32 237	126	7 179	3 119	684	0	0	50 815
2009–10	6 888	740	32 512	127	8 563	3 887	812	0	0	53 529
2010–11	6 918	740	32 727	127	8 711	4 007	1 095	0	0	54 324
2011–12	6 918	740	32 727	149	9 328	4 007	1 528	0	0	55 396
2012–13	6 920	740	31 736	147	9 516	4 009	2 169	0	0	55 238
2013–14	6 920	740	31 816	150	9 616	4 223	2 736	0	0	56 202
2014–15	6 920	740	30 710	149	9 678	4 225	3 122	122	0	55 665
2015–16	6 920	740	29 031	226	9 818	4 207	3 063	231	0	54 234
2016–17	6 920	740	27 290	237	9 689	4 220	3 527	231	0	52 853
2017–18	6 925	810	27 094	237	9 709	4 215	4 188	766	130	54 073

Source: esaa (2005), esaa (2015), AEC (2019).

Table E 1.4a Infrastructure quality—electricity distribution supply reliability measures, National Electricity Market by state—System Average Interruption Duration Index (SAIDI)

Financial year	New South Wales	Victoria	Queensland	South Australia	Tasmania	Australian Capital Territory	National electricity market weighted average	Western Australia
				minutes				
1999–00		156						
2000–01		152	314	164	198		198	
2001–02	324	151	275	147	198		245	
2002–03	193	161	265	184	214		199	
2003–04	279	132	434	164	324		260	
2004–05	218	165	283	169	314		214	
				change in methodology				
2005–06	169	136	626	208	200	50	232	
2006–07	319	167	180	203	253	45	194	325
2007–08	157	202	218	137	283	26	170	317
2008–09	178	229	304	182	331	33	209	
2009–10	124	130	313	207	471	29	212	
2010–11	158	126	1080	318	210	48	323	
2011–12	156	128	163	171	179	33	138	
2012–13	163	140	549	233	389	48	254	
2013–14	129	162	176	290	312	28	183	
2014–15	445	127	436	160	320	33	254	
2015–16	174	174	173	173	275	40	168	
2016–17	319	96	453	972	265	70	363	
2017–18	116	118	241	137	373	38	170	

Note: Data from 2005–06 onwards excludes planned outages (this note does not refer to Western Australia data; data for Victoria is calender year).

Data are not readily available for missing years.

Source: AER (2019).

Table E 1.4b Infrastructure quality—electricity distribution supply reliability measures, National Electricity Market, by state—System Average Interruption Frequency Index (SAIFI)

Financial year	New South Wales	Victoria	Queensland	South Australia	Tasmania	Australian Capital Territory	National electricity market weighted average	Western Australia
	average number of times a customer's supply is interrupted per year							
1999–00		2.1			2.3			
2000–01		2.0	3.0	1.7	2.8		2.4	
2001–02	2.6	2.0	2.8	1.6	2.3		2.4	
2002–03	1.4	2.2	2.7	1.8	2.4		2.0	
2003–04	1.6	1.9	3.4	1.7	3.1		2.2	
2004–05	1.6	1.8	2.7	1.7	3.1		2.0	
	change in methodology							
2005–06	1.7	1.8	3.0	2.0	2.6	0.8	2.0	
2006–07	1.8	2.0	1.9	1.9	2.4	0.8	1.8	3.3
2007–08	1.6	1.6	2.2	1.4	2.4	0.6	1.6	3.3
2008–09	1.7	2.4	2.6	1.8	2.3	0.6	1.9	
2009–10	1.4	1.5	2.3	1.8	2.4	0.7	1.7	
2010–11	1.3	1.4	2.2	2.2	1.8	0.8	1.6	
2011–12	1.4	1.4	1.6	1.5	2.1	0.6	1.4	
2012–13	1.2	1.7	1.9	1.8	1.9	0.7	1.6	
2013–14	1.2	1.6	1.6	2.0	2.2	0.5	1.5	
2014–15	1.4	1.3	1.8	1.2	1.9	0.6	1.4	
2015–16	1.3	1.4	1.5	1.4	1.9	0.7	1.4	
2016–17	2.3	0.9	1.5	3.1	1.8	0.9	1.8	
2017–18	1.1	1.2	1.7	1.2	2.4	0.6	1.4	

Note: Data from 2005–06 onwards excludes planned outages (this note does not refer to Western Australia data; data for Victoria is calender year).

Data are not readily available for missing years.

Source: AER (2019).

CHAPTER 2
Energy production and usage

Table E 2.1 Energy production and trade—Australian energy production (primary fuels), by fuel type—Australia

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL [k] and naturally occurring LPG	Natural gas [k]	Ethane	Hydro–electricity	Solar hotwater	Uranium [l]	Wind	Solar PV
	kilo–tonnes	*kilo–tonnes*	*kilo–tonnes*	*megalitres*	*giga–litres*	*giga–litres*	*gigawatt hours*	*peta–joules*	*tonnes*	*gigawatt hours*	*gigawatt hours*
1988–89	147 778	51 047	14 409	32 018	15 964	189	15 030	2.40	4 507		
1989–90	158 834	48 932	14 744	35 779	20 077	191	14 880	2.40	4 089		
1990–91	164 937	51 913	14 539	35 502	21 049	180	16 103	2.40	4 367		
1991–92	175 130	53 610	13 088	34 898	23 297	182	15 768	2.50	4 329		11
1992–93	176 527	50 433	14 811	34 483	24 417	194	16 953	2.50	2 686		13
1993–94	176 650	51 444	15 687	32 646	26 567	188	16 649	2.50	2 733	4	16
1994–95	191 055	53 790	16 488	34 799	29 264	203	16 239	2.50	2 622	7	19
1995–96	193 437	56 159	17 572	33 900	29 890	203	15 731	2.60	5 088	7	23
1996–97	206 303	60 750	18 452	34 838	29 861	435	16 852	2.60	5 975	7	28
1997–98	222 369	67 971	18 718	38 398	31 666	566	15 733	2.60	5 788	8	34
1998–99	225 014	69 447	18 346	31 802	32 397	562	16 563	2.60	6 387	28	38
1999–00	239 430	70 237	17 891	41 833	33 541	612	16 720	2.60	8 217	58	44
2000–01	258 218	68 118	17 013	43 895	34 490	676	16 933	2.60	9 549	210	50
2001–02	273 236	70 026	15 420	42 432	35 039	538	16 054	2.70	7 823	364	58
2002–03	271 613	70 049	16 411	38 001	36 826	406	16 490	2.78	9 172	703	58
2003–04	280 753	69 551	16 904	32 515	36 872	380	16 331	2.62	9 569	706	68
2004–05	300 034	70 533	17 481	30 001	41 194	407	15 612	2.62	10 964	886	78
2005–06	303 402	71 216	17 465	27 873	42 701	456	16 029	2.43	9 974	1 714	90
2006–07	321 391	69 493	17 637	32 418	45 301	439	14 517	6.00	9 589	2 612	105
2007–08	322 163	69 907	17 641	29 841	47 199	454	12 057	6.67	10 123	3 094	123
2008–09	335 611	71 871	12 322	31 715	49 470	395	11 869	8.24	10 311	3 824	156
2009–10	363 329	72 547	15 124	30 425	52 651	339	13 549	10.49	7 109	5 052	425
2010–11	344 400	70 403	13 912	28 925	58 118	267	16 807	11.66	7 069	6 085	1 531
2011–12	362 709	71 991	13 991	27 265	55 184	331	14 083	12.38	7 650	6 970	2 559
2012–13	396 095	62 335	15 527	24 277	62 976	327	18 270	13.14	8 918	7 960	3 826
2013–14	429 975	60 606	15 143	23 488	64 767	361	18 421	13.23	5 548	10 252	4 416
2014–15	444 365	66 895	16 417	22 031	68 073	345	13 445	14.84		11 467	5 531
2015–16	437 316	60 639	16 584	21 107	83 170	na	15 318	14.87		12 200	6 838
2016–17	443 002	56 719	17 512	18 824	106 137	na	16 285	15.70		12 597	8 072
2017–18	449 938	45 956	16 241	18 210	121 286	na	16 021	16.56		15 174	9 930

[k] NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

[l] Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: Environment and Energy (2019c).

Table E 2.2 Energy production and trade—Australian energy imports, by fuel type

Financial year	Natural gas	Petroleum products						
		Crude oil and other refinery fuel	LPG	Automotive gasoline	Aviation turbine fuel	Automotive diesel oil	Fuel oil	Bitumen, lubricants and greases
	Mcm	*megalitres*	*megalitres*	*megalitres*	*megalitres*	*megalitres*	*megalitres*	*megalitres*
1975–76		9 702	0	876	101	377	2 123	59
1976–77		10 116	0	922	129	492	2 234	28
1977–78		11 214	0	758	100	529	2 001	57
1978–79		10 407	0	708	193	411	2 482	61
1979–80		11 263	0	488	178	620	2 649	77
1980–81		11 450	1	419	150	637	2 070	71
1981–82		12 460	2	399	106	523	1 529	61
1982–83		11 780	2	553	107	468	1 180	50
1983–84		8 553	6	338	63	322	1 419	30
1984–85		7 294	4	590	95	679	1 102	54
1985–86		6 186	1	505	165	715	1 093	53
1986–87		7 724	38	1 276	219	1 016	1 180	57
1987–88		9 577	42	908	171	708	1 010	54
1988–89		12 058	39	1 565	197	847	309	52
1989–90		11 603	85	1 703	234	1 028	0	122
1990–91		13 389	36	717	104	462	0	30
1991–92		15 332	49	357	103	390	413	38
1992–93		19 421	115	440	36	702	1 124	31
1993–94		20 296	164	447	189	764	944	56
1994–95		20 639	266	745	231	767	948	64
1995–96		23 703	415	447	302	1 110	720	34
1996–97		24 768	588	1 074	306	952	809	36
1997–98		25 017	511	483	111	770	795	53
1998–99		29 730	496	890	140	1 436	596	71
1999–00		26 936	519	1 065	171	1 400	799	137
2000–01		26 489	633	1 189	387	1 129	814	102
2001–02		27 308	588	1 436	225	1 280	557	93
2002–03		27 959	299	1 673	429	1 627	611	313
2003–04		23 499	785	3 242	681	3 374	1 285	461
2004–05		26 056	540	3 131	983	3 944	1 281	716
2005–06	1 295	24 418	599	3 687	817	6 122	1 418	741
2006–07	5 805	25 345	748	2 912	1 045	5 439	1 363	715
2007–08	5 483	26 223	965	3 533	1 846	7 470	1 625	812
2008–09	6 462	24 302	1 002	4 087	2 026	8 246	1 682	752
2009–10	5 643	27 284	1 067	3 884	2 168	8 668	1 797	707
2010–11	6 526	31 766	888	2 944	2 086	8 820	1 559	820
2011–12	5 811	29 495	1 023	3 672	2 252	11 225	1 623	1 047
2012–13	6 517	29 966	920	3 707	3 201	12 504	1 677	1 196
2013–14	6 938	28 310	730	3 598	3 482	13 603	1 338	1 334
2014–15	6 373	24 722	959	5 534	4 299	15 178	262	1 167
2015–16	7 189	19 850	918	6 641	5 591	17 768	333	1 007
2016–17	6 556	20 353	1 003	6 951	5 859	18 516	286	1 250
2017–18	5 921	22 418	833	6 378	6 133	20 135	723	1 459

Source: Environment and Energy (2019b).

Table E 2.3a Energy production and trade—Australian energy exports, by fuel type—petroleum exports

Financial year	Crude oil and other refinery feedstock	LPG	Automotive gasoline	Aviation gasoline	Aviation turbine fuel	Automotive diesel oil	Fuel oil	Bitumen, lubricants and greases
				megalitres				
1977–78	221	2 864	286	23	326	522	396	278
1978–79	371	3 031	339	20	314	735	253	259
1979–80	127	2 764	312	8	210	638	352	251
1980–81	86	2 569	268	18	277	705	323	173
1981–82	44	2 622	340	43	268	669	307	227
1982–83	61	2 334	513	57	267	793	466	222
1983–84	1 056	2 851	592	72	382	1 035	505	247
1984–85	5 819	2 620	342	83	375	576	517	245
1985–86	5 051	2 977	397	70	329	578	723	181
1986–87	5 702	2 675	251	68	303	444	765	230
1987–88	6 453	2 402	360	81	398	682	754	224
1988–89	4 789	2 178	288	63	514	941	639	236
1989–90	7 202	1 983	212	83	541	756	443	253
1990–91	8 830	1 508	314	63	321	882	878	299
1991–92	8 967	1 568	700	158	248	830	1 043	419
1992–93	10 098	1 483	678	69	390	657	1 053	402
1993–94	9 538	1 290	891	59	400	809	713	400
1994–95	11 445	1 189	648	42	284	673	853	448
1995–96	10 899	1 469	1 127	69	552	1 201	629	351
1996–97	12 401	2 421	1 293	43	708	1 363	928	363
1997–98	14 785	2 824	1 521	56	658	1 305	633	402
1998–99	14 291	2 486	1 533	74	547	1 231	253	320
1999–00	20 877	2 857	1 371	79	579	1 070	585	259
2000–01	24 044	2 785	1 288	28	755	1 276	724	281
2001–02	23 936	3 211	1 186	71	549	948	293	171
2002–03	20 950	3 194	1 058	52	645	1 052	95	163
2003–04	17 526	2 916	774	36	528	872	81	122
2004–05	15 731	2 844	774	38	240	367	201	156
2005–06	13 026	2 800	714	85	127	419	490	179
2006–07	15 965	2 824	771	81	120	288	209	207
2007–08	15 975	2 589	628	96	149	462	257	161
2008–09	16 588	2 500	244	56	106	357	188	164
2009–10	18 064	2 776	222	32	72	187	109	189
2010–11	19 638	2 471	175	20	12	117	194	200
2011–12	17 438	2 115	175	25	2	130	485	288
2012–13	15 761	2 386	100	22	13	91	220	429
2013–14	14 817	2 459	131	20	2	61	47	337
2014–15	15 152	2 112	118	10	20	76	108	299
2015–16	13 891	1 989	72	4	2	52	181	268
2016–17	12 804	2 232	219	2	70	105	318	274
2017–18	13 034	2 285	151	2	143	86	237	268

Source: Environment and Energy (2019c).

Table E 2.3b Energy production and trade—Australian energy exports, by fuel type—non-petroleum exports

Financial year	Black coal		Uranium	Briquettes	Coke [k]	LNG
	Coking	Steaming/ thermal				
	kilotonnes	*kilotonnes*	*tonnes*	*kilotonnes*	*kilotonnes*	*kilotonnes*
1977–78	33 634	4 277	1 452	42	149	
1978–79	33 257	5 021	1 317	25	147	
1979–80	36 144	7 017	1 210	25	122	
1980–81	36 404	10 844	1 625	39	21	
1981–82	36 539	9 582	5 460	46	9	
1982–83	38 866	15 779	3 233	47	5	
1983–84	44 509	19 819	3 259	54	14	
1984–85	50 800	35 300	3 441	47	11	
1985–86	51 800	38 500	3 210	62	217	
1986–87	54 400	43 300	4 364	53	108	
1987–88	57 100	45 000	4 552	75	816	
1988–89	57 208	40 448	5 061	24	986	
1989–90	60 605	43 975	4 812	31	574	2 010
1990–91	61 904	51 468	6 129	44	897	3 400
1991–92	65 077	58 225	4 729	82	724	4 660
1992–93	69 533	59 651	2 289	61	599	4 984
1993–94	69 889	59 166	3 992	100	529	6 032
1994–95	73 335	62 901	4 069	105	295	7 018
1995–96	77 412	61 138	5 286	98	421	7 482
1996–97	78 688	67 064	5 701	95	329	7 486
1997–98	84 073	78 538	6 415	28	178	7 650
1998–99	85 260	84 153	5 989		67	7 819
1999–00	96 808	78 970	8 025		24	7 923
2000–01	105 527	87 975	9 722		19	7 530
2001–02	105 833	92 040	7 367		81	7 600
2002–03	107 794	100 930	9 593		262	7 826
2003–04	111 732	107 611	9 099			7 914
2004–05	124 915	107 414	11 249			10 589
2005–06	120 479	111 986	10 253			12 029
2006–07	131 965	112 425	9 518			14 332
2007–08	136 921	115 267	10 140			13 678
2008–09	125 238	136 505	10 114			15 410
2009–10	157 265	135 352	7 555			17 866
2010–11	140 455	144 056	6 950			19 957
2011–12	142 396	159 152	6 917		543	18 866
2012–13	154 193	182 003	8 391		1 039	23 503
2013–14	180 458	194 587	6 596		1 012	23 246
2014–15	187 664	204 685	5 515		684	25 047
2015–16	187 998	201 302	8 417		756	36 852
2016–17	177 199	201 739	7 081		744	52 124
2017–18	179 243	202 701	8 118		730	61 691

Source: Environment and Energy (2019c).

[k] Coke exports have been confidentialised from 2003-04 to 2010-11.

Table E 2.4 Electricity usage—Australian electricity consumption, by state/territory

Financial year	NSW	VIC	QLD	WA	SA	TAS	NT	Australia
				gigawatt hours				
1976–77	30 309	21 023	10 615	6 986	6 520	6 873	729	83 055
1977–78	31 787	21 395	11 300	7 229	6 797	7 201	775	86 484
1978–79	34 201	22 820	11 884	7 492	6 934	7 787	831	91 950
1979–80	36 708	23 595	12 558	7 733	7 074	7 950	1 100	96 717
1980–81	38 845	25 396	13 501	7 885	7 458	8 096	1 175	102 356
1981–82	39 666	26 587	14 640	8 199	7 618	8 173	1 183	106 065
1982–83	38 475	26 457	16 125	8 365	7 879	8 006	1 235	106 542
1983–84	41 253	27 152	18 551	8 647	7 681	8 173	1 296	112 752
1984–85	44 712	28 080	20 626	9 711	8 144	8 320	1 368	120 960
1985–86	46 895	29 176	22 267	10 321	8 370	8 451	1 456	126 936
1986–87	48 900	31 123	23 344	10 881	8 426	8 463	1 494	132 631
1987–88	50 011	33 909	24 313	11 455	8 824	9 011	1 564	139 088
1988–89	51 741	37 435	25 677	12 848	9 254	9 135	1 705	147 796
1989–90	54 216	38 226	27 473	14 261	9 791	9 223	1 828	155 019
1990–91	54 140	38 476	28 423	14 809	9 851	9 219	1 899	156 818
1991–92	54 542	38 907	29 823	15 208	9 979	9 131	1 966	159 556
1992–93	56 167	39 642	30 992	15 624	10 210	9 054	1 961	163 652
1993–94	58 229	39 229	32 214	16 295	10 433	9 099	1 967	167 466
1994–95	59 725	40 229	33 999	17 362	10 876	8 877	2 095	173 162
1995–96	61 371	40 062	35 555	18 106	10 879	9 277	2 351	177 602
1996–97	63 101	41 145	36 967	18 291	11 193	9 783	2 463	182 944
1997–98	65 653	44 258	41 909	19 542	11 571	9 882	2 559	195 375
1998–99	67 487	46 782	43 318	21 407	12 386	10 027	2 585	203 991
1999–00	69 215	47 576	44 911	22 869	12 816	10 137	2 706	210 230
2000–01	71 690	52 153	50 692	23 135	13 676	10 412	2 883	224 641
2001–02	72 547	53 091	51 363	23 378	13 492	10 724	2 969	227 563
2002–03	73 522	49 323	51 777	20 487	13 546	10 963	2 362	221 980
2003–04	75 649	49 972	55 374	20 757	14 188	11 302	2 394	229 636
2004–05	74 318	50 643	54 351	20 935	13 958	11 778	2 388	228 370
2005–06	75 556	51 893	54 403	22 382	14 276	11 503	2 536	232 549
2006–07	78 760	53 669	56 795	23 414	14 950	12 180	3 082	242 849
2007–08	78 317	53 417	56 828	24 370	14 863	12 069	3 060	242 924
2008–09	77 930	52 960	58 932	27 633	15 257	11 800	2 923	247 433
2009–10	79 645	54 376	58 967	29 058	15 164	12 009	3 236	252 454
2010–11	80 299	51 389	58 445	31 395	15 827	12 586	3 139	253 080
2011–12	77 527	51 892	58 741	31 549	15 415	11 717	3 132	249 972
2012–13	73 880	50 503	60 539	33 290	15 689	11 881	3 333	249 115
2013–14	71 999	49 598	59 609	36 680	15 866	11 819	3 466	249 037
2014–15	72 934	49 442	61 867	37 783	15 571	11 799	2 997	252 392
2015–16	74 826	49 296	63 747	38 738	15 915	11 842	3 066	257 430
2016–17	75 816	47 275	64 691	40 049	15 330	11 875	2 991	258 027
2017–18	77 064	47 921	63 827	41 178	15 319	12 321	3 510	261 140

Source: Environment and Energy (2019c).
Note: ACT figures are included in the NSW total.

Table E 2.5 Electricity usage—Australian electricity consumption, by industry—Australia

Financial year	Agric–ulture, forestry and fishing	Mining	Manu–facturing	Electricity, gas, water and waste services	Cons–truction, commercial and services	Transport, postal and ware–housing	Resi–dential	Total electricity consumption	Total energy consumption
					Petajoules				
1975–76	3.90	16.80	90.10	41.70	37.90	2.70	83.60	276.60	2730.80
1976–77	4.20	17.70	94.70	47.10	41.30	2.80	91.20	299.00	2905.90
1977–78	4.50	17.50	97.60	49.10	44.20	2.90	95.50	311.30	2985.10
1978–79	4.40	17.70	103.30	53.30	47.90	2.90	101.50	331.00	3053.10
1979–80	5.00	17.30	109.90	56.20	52.30	3.20	104.30	348.20	3131.40
1980–81	5.30	18.00	115.40	60.10	56.50	3.50	109.80	368.50	3146.30
1981–82	5.60	19.00	118.00	61.20	59.30	3.50	115.20	381.90	3237.60
1982–83	6.20	19.50	116.50	60.70	60.70	3.60	116.40	383.60	3122.70
1983–84	6.00	19.60	133.60	63.10	62.10	4.10	117.50	405.90	3221.20
1984–85	6.50	21.10	147.10	71.10	65.60	4.30	119.90	435.50	3370.70
1985–86	6.70	23.50	155.60	71.80	70.60	4.80	124.10	457.00	3402.50
1986–87	7.00	24.40	163.70	73.70	75.80	5.00	128.00	477.50	3514.40
1987–88	7.50	25.70	177.60	72.40	81.90	5.50	130.20	500.70	3623.00
1988–89	7.60	30.10	190.60	78.20	87.50	6.30	131.90	532.10	3832.70
1989–90	6.30	35.10	196.70	79.10	93.90	6.60	138.80	558.10	3945.90
1990–91	6.70	35.60	197.70	76.60	98.40	6.70	141.30	564.60	3949.90
1991–92	7.00	37.10	198.30	80.70	99.80	6.90	141.50	574.40	3982.70
1992–93	7.50	38.10	204.90	79.80	102.90	6.90	146.30	589.20	4081.80
1993–94	7.50	38.70	213.90	80.70	106.00	7.00	146.00	602.90	4181.90
1994–95	8.00	41.30	214.00	84.80	113.60	7.20	151.80	623.40	4365.40
1995–96	7.80	43.80	213.20	86.00	122.40	7.40	155.50	639.40	4505.50
1996–97	8.00	44.30	219.60	86.50	128.10	7.70	161.20	658.70	4611.10
1997–98	8.50	47.70	238.60	96.80	134.90	7.80	166.30	703.60	4777.60
1998–99	8.20	50.70	249.80	103.60	140.00	8.30	170.00	734.30	4884.70
1999–00	8.20	53.30	259.80	106.00	144.80	8.60	174.00	756.80	4971.00
2000–01	7.80	56.80	265.60	110.30	148.90	8.50	178.50	776.40	5011.80
2001–02	7.30	56.90	267.40	111.40	154.80	8.30	180.20	786.40	5097.00
2002–03	9.92	52.14	236.16	110.68	183.38	12.27	194.04	799.12	5138.67
2003–04	9.64	54.84	237.05	122.68	187.59	12.78	201.52	826.69	5284.77
2004–05	8.67	55.68	241.79	117.39	187.61	12.51	198.50	822.13	5399.20
2005–06	9.04	66.07	238.77	118.95	189.50	13.35	201.49	837.18	5546.75
2006–07	9.28	67.79	251.12	121.93	202.52	13.94	207.69	874.26	5724.00
2007–08	9.12	67.59	249.08	120.77	203.16	14.60	210.20	874.52	5738.33
2008–09	8.28	72.96	253.18	125.74	204.87	12.25	213.48	890.76	5843.56
2009–10	8.41	76.09	260.27	123.78	208.41	13.52	218.36	908.83	5823.13
2010–11	8.04	85.71	248.34	118.10	211.65	14.12	225.13	911.09	5902.18
2011–12	8.36	87.92	243.62	116.84	206.90	14.98	221.30	899.90	5887.98
2012–13	8.01	94.29	235.73	108.62	214.29	17.95	217.94	896.81	5918.54
2013–14	8.82	106.13	233.26	107.00	215.21	18.42	207.70	896.54	5895.92
2014–15	8.48	107.92	217.86	108.00	232.39	20.36	213.60	908.61	5900.77
2015–16	8.01	119.26	217.96	113.26	232.71	21.70	213.85	926.75	6044.58
2016–17	7.10	129.49	206.86	112.69	238.34	21.18	213.24	928.90	6119.43
2017–18	7.64	137.36	207.30	111.44	241.58	21.46	213.32	940.10	6171.70

Note: Electricity does not include thermal electricity.
Source: Environment and Energy (2019c).

Table E 2.6a Electricity usage—number of electricity customers, by state/territory—residential

At end of financial year	NSW [l]	VIC [m]	QLD	SA [n]	WA [o]	TAS	NT [p]	ACT [l]	Australia
					number				
1979–80	1 778 482	1 344 255	686 986	479 005	382 500	148 777	20 930	70 529	4 911 464
1980–81	1 827 382	1 368 502	715 571	486 018	397 740	151 615	21 537	72 518	5 040 883
1981–82	1 871 428	1 390 366	747 572	492 616	400 255	153 942	24 106	75 027	5 155 312
1982–83	1 910 929	1 410 782	778 871	500 328	407 679	156 016	25 678	77 517	5 267 800
1983–84	1 941 518	1 434 797	810 816	510 369	410 000	158 448	27 704	79 306	5 372 958
1984–85	1 977 262	1 463 053	841 251	522 654	443 222	161 755	30 842	81 784	5 521 823
1985–86	2 016 735	1 495 878	866 602	534 823	464 403	165 435	33 535	84 978	5 662 389
1986–87	2 047 229	1 523 100	889 389	544 326	481 310	168 796	33 883	88 542	5 776 575
1987–88	2 076 298	1 552 603	914 714	522 980	514 316	172 109	35 417	91 010	5 879 447
1988–89	2 110 063	1 585 877	954 244	561 293	520 623	175 472	36 592	93 549	6 037 713
1989–90	2 155 493	1 618 058	996 542	571 712	544 680	178 291	37 439	96 122	6 198 337
1990–91	2 197 765	1 639 066	1 031 612	581 503	556 378	182 340	38 252	99 078	6 325 994
1991–92	2 231 018	1 661 567	1 073 548	591 655	571 727	186 134	41 304	101 920	6 458 873
1992–93	2 302 524	1 684 837	1 123 671	594 229	590 546	190 308	42 588	105 588	6 634 291
1993–94	2 329 499	1 709 280	1 174 558	605 481	609 852	194 314	48 190	109 005	6 780 179
1994–95									
1995–96									
1996–97									
1997–98	2 555 906	1 804 169	1 346 548	630 060	673 571	206 926	54 998		7 272 178
1998–99	2 513 792	1 800 026	1 382 747	636 283	676 947	205 138	56 686		7 271 619
1999–00	2 572 324	1 871 775	1 426 420	642 878	692 475	207 285	58 550		7 471 707
2000–01	2 610 259	1 896 991	1 460 916	649 387	722 853	207 336	54 748		7 602 490
2001–02	2 661 016	1 942 595	1 487 968	657 209	736 100	208 380	55 779		7 749 047
2002–03	2 850 155	2 005 664	1 491 127	660 926	742 270	208 795	62 317		8 021 254
2003–04	2 876 498	2 048 182	1 558 783	659 211	748 903	211 422	62 330		8 165 329
2004–05	2 919 583	2 097 560	1 574 167	670 743	820 703	213 832	61 222		8 357 810
2005–06	2 949 376	2 109 756	1 603 756	679 069		216 983	61 555		
2006–07	2 923 107	2 141 284	1 629 232	688 524	807 136	219 809	61 783		8 470 875
2007–08	2 977 603	2 164 899	1 670 789	697 518	883 932	220 148	63 800		8 678 689
2008–09	3 000 551	2 190 588	1 697 545	708 242	909 680		60 805		
2009–10	3 058 479	2 248 207	1 742 545	717 813	928 654	229 420	62 522		8 987 640
2010–11	3 089 086	2 269 037	1 767 850	725 439	946 513	228 128	64 854		9 090 907
2011–12	3 116 809	2 312 250	1 806 860	732 350	961 804	229 663	64 808		9 224 544
2012–13	3 148 350	2 344 031	1 842 983	737 582	971 097	233 979	67 441		9 345 463
2013–14	3 189 194	2 377 337	1 857 602	743 918	996 657	235 170	75 669		9 475 547
2014–15	3 231 203	2 393 125	1 887 425	751 078	1 009 250	237 366	69 729		9 579 176
2015–16 [r]	3 262 471	2 457 181	1 918 491	756 227	1 042 281	239 781	71 090		9 747 522
2016–17	3 317 228	2 493 142	1 947 496	759 071	1 062 135	241 955	73 150		9 894 177
2017–18	3 370 758	2 544 179	1 984 475	790 133	1 075 472	244 282	72 870		10 082 169

[l] From 1997–98, ACT figures are included in the NSW total.
[m] In Victoria, data is on a calendar year basis, which differs from the other states.
[n] The method of compiling South Australian customer numbers changed from 2003–04 and is not comparable to earlier years.
[o] A breakdown of customer connections for Western Australia was not available for 2005–06. The method of compiling Western Australian customer numbers changed from 2007–08 and again in 2008–09. Estimates are not comparable to earlier years.
[p] The method of compiling Northern Territory customer numbers changed from 2005–06 and is not comparable to earlier years.
[r] In 2015–16, the number of customers is based on information provided by companies in the industry. CitiPower and Powercor did not participate in the esaa/AEC survey and their customer breakdown was estimated.
Note: Data are not readily available for missing years.
Source: esaa (2005), esaa (2015), AEC (2019).

Table E 2.6b Electricity usage—number of electricity customers, by state/territory—business

At end of financial year	NSW [l]	VIC [m]	QLD	SA [n]	WA [o]	TAS	NT [p]	ACT [l]	Australia
					number				
1982–83	219 349	228 718	130 232	86 831	68 258	35 842	4 733	7 474	781 437
1983–84	223 425	232 144	135 705	87 792	80 639	36 755	4 795	7 636	808 892
1984–85	227 898	236 536	139 314	89 016	69 073	37 253	5 276	8 173	812 539
1985–86	233 894	238 419	146 119	90 830	71 707	37 849	5 768	8 507	833 093
1986–87	240 513	240 848	150 231	90 847	74 242	38 503	6 140	8 821	850 145
1987–88	247 375	246 856	156 614	91 283	70 558	39 209	6 617	9 369	867 881
1988–89	242 024	255 125	162 348	92 488	75 840	40 063	6 689	9 816	884 393
1989–90	248 015	255 895	165 650	93 570	78 318	40 670	6 950	10 244	899 312
1990–91	252 036	254 817	169 271	93 576	84 304	41 731	7 064	10 697	913 496
1991–92	264 021	256 222	172 743	93 784	85 050	42 000	8 330	10 820	932 970
1992–93	260 095	259 862	175 658	85 228	86 785	42 356	8 133	11 175	929 292
1993–94	270 419	262 286	181 103	85 559	89 622	43 086	9 315	11 669	953 059
1994–95									
1995–96									
1996–97									
1997–98	391 107	283 882	185 486	94 471	88 133	38 572	11 128		1 092 779
1998–99	337 090	285 271	193 566	66 303	98 655	27 821	11 663		1 020 369
1999–00	358 674	226 217	173 719	64 199	102 271	28 653	11 283		965 016
2000–01	337 054	265 878	162 095	66 672	87 715	40 563	10 762		970 739
2001–02	319 964	268 453	164 248	67 743	92 013	27 662	11 093		951 176
2002–03	319 156	301 925	195 682	95 061	104 788	42 098	12 664		1 071 374
2003–04	337 501	303 481	192 454	95 626	118 164	42 100	13 066		1 102 392
2004–05	343 345	271 844	199 802	86 885	109 215	42 190	15 305		1 068 586
2005–06	348 482	311 820	205 283	97 425		42 147	12 078		
2006–07	410 577	313 330	216 421	97 980	117 977	43 102	13 499		1 212 886
2007–08	394 249	313 735	221 671	98 695	128 965	44 159	11 874		1 213 348
2008–09	394 817	315 256	211 191	99 311	141 654		11 275		
2009–10	371 501	313 895	204 783	99 457	127 207	50 369	11 482		1 178 694
2010–11	374 819	316 665	212 902	99 779	113 756	47 408	11 749		1 177 078
2011–12	378 233	321 226	215 740	99 723	124 490	48 293	12 900		1 200 605
2012–13	387 369	319 840	221 300	98 783	128 942	44 777	15 104		1 216 115
2013–14	407 330	321 142	227 379	99 203	129 259	42 356	13 632		1 240 301
2014–15	404 566	323 608	217 113	99 138	125 479	42 208	12 640		1 224 752
2015–16 [r]	380 668	311 465	235 017	98 515	117 794	42 014	13 106		1 198 579
2016–17	380 242	317 677	234 253	98 256	117 027	41 838	12 366		1 201 659
2017–18	381 283	323 549	236 692	100 263	117 004	41 677	12 210		1 212 678

[l] From 1997–98, ACT figures are included in the NSW total.

[m] In Victoria, data is on a calendar year basis, which differs from the other states.

[n] The method of compiling South Australian customer numbers changed from 2003–04 and is not comparable to earlier years.

[o] A breakdown of customer connections for Western Australia was not available for 2005–06. The method of compiling Western Australian customer numbers changed from 2007–08 and again in 2008–09. Estimates are not comparable to earlier years.

[p] The method of compiling Northern Territory customer numbers changed from 2005–06 and is not comparable to earlier years.

[q] The number of "other" electricity customers is not separately available and has been included in estimates of the number of business customers.

[r] In 2015–16, the number of customers is based on information provided by companies in the industry. CitiPower and Powercor did not participate in the esaa/AEC survey and their customer breakdown was estimated.

Note: Data are not readily available for missing years

Source: esaa (2005), esaa (2015), AEC (2019)

Table E 2.6c Electricity usage—number of electricity customers, by state/territory—total

At end of financial year	NSW [l]	VIC [m]	QLD	SA [n]	WA [o]	TAS	NT [p]	ACT [l]	Australia
					number				
1982–83	2 130 945	1 641 282	909 236	587 300	476 138	192 034	30 411	85 792	6 053 138
1983–84	2 165 672	1 668 777	946 654	598 306	490 818	195 387	32 499	87 928	6 186 041
1984–85	2 205 979	1 701 447	980 698	611 837	512 441	199 197	36 118	90 776	6 338 493
1985–86	2 251 361	1 736 223	1 012 854	625 818	536 254	203 489	39 303	94 306	6 499 608
1986–87	2 288 497	1 766 019	1 039 753	635 341	555 698	207 498	40 023	98 201	6 631 030
1987–88	2 324 422	1 801 532	1 071 461	614 435	585 020	211 527	42 039	101 246	6 751 682
1988–89	2 367 718	1 843 039	1 116 725	653 954	596 609	215 743	43 286	104 236	6 941 310
1989–90	2 420 231	1 875 962	1 162 325	665 454	623 146	219 169	44 394	107 278	7 117 959
1990–91	2 479 616	1 895 753	1 201 016	675 252	640 830	224 283	45 321	110 699	7 272 770
1991–92	2 524 339	1 919 796	1 246 424	685 605	656 927	228 348	49 639	113 690	7 424 768
1992–93	2 592 256	1 946 798	1 299 462	680 247	677 477	232 895	50 738	117 765	7 597 638
1993–94	2 625 379	1 985 687	1 355 793	692 536	699 625	237 607	57 538	121 679	7 775 844
1994–95	2 797 616	2 002 363	1 410 842	704 156	706 634	239 876	59 226		7 920 713
1995–96	2 834 776	2 035 584	1 457 364	711 050	725 430	241 818	61 305		8 067 327
1996–97	2 875 350	2 062 587	1 495 900	713 333	742 150	243 522	63 533		8 196 375
1997–98	2 947 013	2 088 051	1 532 034	724 531	761 704	245 498	66 126		8 364 957
1998–99	2 982 253	2 153 429	1 576 313	733 783	775 602	245 185	68 349		8 534 914
1999–00	3 015 336	2 156 391	1 629 495	736 384	794 746	248 260	69 833		8 650 445
2000–01	3 076 397	2 218 712	1 655 507	744 128	810 568	247 899	72 167		8 825 378
2001–02	3 113 869	2 268 466	1 684 488	751 802	828 113	248 544	73 811		8 969 093
2002–03	3 169 311	2 307 589	1 686 809	755 987	847 058	250 893	74 981		9 092 628
2003–04	3 213 999	2 351 663	1 751 237	754 837	867 067	253 522	75 396		9 267 721
2004–05	3 262 928	2 369 404	1 773 969	757 628	929 918	256 022	76 527		9 426 396
2005–06	3 297 858	2 421 576	1 809 039	776 494	892 601	259 130	73 633		9 530 331
2006–07	3 333 684	2 454 614	1 845 653	786 504	925 113	262 911	75 282		9 683 761
2007–08	3 371 852	2 478 634	1 892 460	796 213	1 012 897	264 307	75 674		9 892 037
2008–09	3 395 368	2 505 844	1 908 736	807 553	1 051 334	269 556	72 080		10 010 471
2009–10	3 426 356	2 562 102	1 947 328	817 270	1 055 861	279 789	74 004		10 162 710
2010–11	3 459 414	2 585 702	1 980 752	825 218	1 060 269	275 536	76 603		10 263 494
2011–12	3 485 897	2 633 476	2 022 600	832 073	1 086 294	277 956	77 708		10 416 004
2012–13	3 535 719	2 663 871	2 064 283	836 365	1 100 039	278 756	82 545		10 561 578
2013–14	3 596 524	2 698 479	2 084 981	843 121	1 125 916	277 526	89 301		10 715 848
2014–15 [r]	3 635 769	2 716 733	2 104 538	850 216	1 134 729	279 574	82 369		10 803 928
2015–16	3 643 139	2 768 646	2 153 508	854 742	1 160 075	281 795	84 196		10 946 101
2016–17	3 697 470	2 810 819	2 181 749	857 327	1 179 162	283 793	85 516		11 095 836
2017–18	3 752 041	2 867 728	2 221 167	890 396	1 192 476	285 959	85 080		11 294 847

[l] From 1997–98, ACT figures are included in the NSW total.
[m] In Victoria, data is on a calendar year basis, which differs from the other states.
[n] The method of compiling South Australian customer numbers changed from 2003–04 and is not comparable to earlier years.
[o] A breakdown of customer connections for Western Australia was not available for 2005–06. The method of compiling Western Australian customer numbers changed from 2007–08 and again in 2008–09. Estimates are not comparable to earlier years.
[p] The method of compiling Northern Territory customer numbers changed from 2005–06 and is not comparable to earlier years.
[q] The number of "other" electricity customers is not separately available and has been included in estimates of the number of business customers.
[r] In 2015–16, the number of customers is based on information provided by companies in the industry. CitiPower and Powercor did not participate in the esaa/AEC survey and their customer breakdown was estimated.
Note: Data are not readily available for missing years
Source: esaa (2005), esaa (2015), AEC (2019).

Table E 2.7 Electricity usage—price index for residential electricity supply, by capital city

Average over financial year ending	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	base of each index: 2011–12 = 100							
Jun–1982	17.3	21.2	22.3	17.1	28.3	16.8	26.1	17.7
Jun–1983	23.7	24.7	26.8	21.3	32.5	18.7	32.2	24.9
Jun–1984	24.3	26.9	30.0	23.5	37.4	21.4	35.9	26.0
Jun–1985	25.3	28.1	34.0	26.6	38.8	23.6	38.7	26.8
Jun–1986	27.1	29.5	37.6	27.3	40.5	24.5	48.7	28.8
Jun–1987	27.8	31.5	38.7	28.3	45.1	27.8	53.9	30.5
Jun–1988	30.0	33.2	39.7	30.5	47.7	29.1	54.7	34.6
Jun–1989	32.9	34.3	40.3	32.0	47.7	30.6	54.7	36.8
Jun–1990	34.0	35.9	40.3	33.0	51.1	32.2	54.7	38.3
Jun–1991	33.6	38.5	40.9	34.1	55.1	36.1	55.2	39.9
Jun–1992	37.2	41.0	41.8	36.1	56.2	38.1	58.3	41.3
Jun–1993	38.3	44.8	42.5	36.9	56.2	39.8	59.4	43.4
Jun–1994	38.3	47.8	42.8	37.5	56.2	41.4	59.7	43.4
Jun–1995	38.3	47.8	43.1	37.1	56.2	41.8	59.7	43.5
Jun–1996	38.3	47.8	43.1	37.8	56.2	42.3	59.7	44.6
Jun–1997	38.9	48.2	43.1	39.5	56.2	43.7	59.7	44.6
Jun–1998	38.9	48.5	43.1	40.0	58.3	45.1	59.7	45.3
Jun–1999	38.9	42.1	43.1	40.8	58.3	45.4	62.9	46.5
Jun–2000	39.0	42.6	43.1	41.6	58.3	46.6	62.9	48.0
Jun–2001	42.7	48.0	48.7	46.7	63.7	53.0	68.6	54.1
Jun–2002	42.9	53.5	50.3	48.1	63.7	52.9	68.6	55.8
Jun–2003	44.3	55.3	51.9	56.2	63.7	55.0	68.6	56.3
Jun–2004	45.5	55.3	54.1	63.6	63.7	56.8	68.6	63.1
Jun–2005	49.4	55.0	55.5	62.8	63.7	58.2	68.6	63.9
Jun–2006	52.9	55.1	57.8	60.7	63.7	59.6	68.6	66.3
Jun–2007	55.9	55.8	59.9	62.3	63.7	62.0	70.5	69.1
Jun–2008	60.1	61.0	66.8	64.9	63.7	67.1	74.2	81.6
Jun–2009	65.5	69.1	72.4	69.8	65.3	73.8	77.1	87.0
Jun–2010	79.7	79.8	83.6	73.0	82.0	78.0	93.2	93.3
Jun–2011	86.9	91.9	94.5	81.9	95.2	86.6	97.6	94.9
Jun–2012	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Jun–2013	118.6	121.8	113.4	116.7	112.1	110.7	120.1	118.7
Jun–2014	123.5	127.0	134.8	117.4	116.4	109.7	134.3	122.3
Jun–2015	114.5	120.4	139.4	118.0	111.2	98.3	132.4	112.6
Jun–2016	109.3	122.7	141.4	107.5	118.0	100.2	131.9	107.4
Jun–2017	120.7	126.3	145.9	121.0	121.6	103.7	128.1	114.2
Jun–2018	138.4	141.8	147.4	146.8	133.4	104.6	128.8	126.3
Jun–2019	137.2	146.3	138.3	143.7	143.2	106.8	130.3	139.3

Source: ABS (2019f).

Table E 2.8 Natural gas usage—Australian natural gas consumption, by industry—Australia

Financial year	Agriculture, forestry and fishing	Mining	Manufacturing	Electricity, gas, water and waste services	Construction, commercial and services	Transport, postal and warehousing	Residential	Total natural gas consumption	Total energy consumption
					Petajoules				
1975–76		20.30	103.30	48.60	8.60	0.50	29.90	211.20	2730.80
1976–77		20.90	117.50	69.80	10.30	1.20	36.50	256.20	2905.90
1977–78		20.20	134.20	76.50	11.40	1.70	39.10	283.00	2985.10
1978–79		21.90	148.80	85.70	13.70	1.50	43.30	314.90	3053.10
1979–80		24.20	179.10	96.90	15.10	2.30	45.10	362.60	3131.40
1980–81		23.30	198.60	126.00	16.20	2.80	48.90	416.00	3146.30
1981–82		25.50	206.10	152.20	19.60	3.30	55.20	462.00	3237.60
1982–83		31.30	212.50	139.90	21.40	4.00	57.20	466.20	3122.70
1983–84		39.00	215.70	146.50	23.50	4.60	60.60	490.00	3221.20
1984–85		49.10	245.70	134.20	25.40	4.50	64.40	523.30	3370.70
1985–86		47.70	264.30	156.40	27.00	6.60	68.70	570.70	3402.50
1986–87		50.20	278.50	151.10	29.30	4.50	74.80	588.40	3514.40
1987–88		59.00	284.50	159.40	29.80	5.10	72.70	610.50	3623.00
1988–89		61.60	291.30	162.30	31.40	5.00	76.10	627.80	3832.70
1989–90		81.00	300.20	179.50	34.20	5.20	87.90	688.00	3945.90
1990–91		84.70	303.70	137.40	35.40	4.80	89.40	655.40	3949.90
1991–92		90.90	303.20	148.00	37.60	5.50	93.30	678.70	3982.70
1992–93		103.10	309.20	151.40	39.10	6.50	97.80	707.00	4081.80
1993–94		105.40	327.20	160.70	39.60	7.80	96.20	736.80	4181.90
1994–95		117.30	338.20	181.50	42.80	8.70	104.70	793.10	4365.40
1995–96		130.40	336.00	164.80	45.20	9.20	111.30	797.00	4505.50
1996–97	0.10	133.70	354.40	161.50	45.90	10.10	112.80	818.40	4611.10
1997–98	0.10	145.90	356.30	180.10	49.90	10.80	116.20	859.30	4777.60
1998–99	0.10	145.00	356.60	209.00	50.60	12.10	115.20	888.40	4884.70
1999–00	0.10	152.10	368.40	219.80	51.30	14.40	118.50	924.30	4971.00
2000–01	0.10	126.10	397.80	257.60	44.80	13.60	121.60	961.60	5011.80
2001–02	0.10	128.30	397.50	264.70	45.60	15.50	124.90	976.40	5097.00
2002–03	0.10	106.52	407.05	240.92	46.01	16.60	124.94	942.13	5138.67
2003–04	0.10	109.22	417.42	259.86	46.32	15.72	125.34	973.99	5284.77
2004–05	0.10	116.18	423.73	263.96	47.14	16.94	128.40	996.44	5399.20
2005–06	0.10	128.80	422.96	252.83	45.70	17.96	132.51	1000.86	5546.75
2006–07	0.10	151.36	435.78	345.87	45.64	18.64	134.53	1131.91	5724.00
2007–08	0.10	152.71	435.12	378.61	46.29	19.01	136.86	1168.70	5738.33
2008–09	0.12	163.91	420.38	464.78	48.53	14.04	141.12	1252.87	5843.56
2009–10	0.12	160.76	422.94	465.16	50.82	13.92	144.11	1257.83	5823.13
2010–11	0.13	166.78	412.63	480.65	52.75	13.23	148.05	1274.21	5902.18
2011–12	0.57	169.82	425.06	526.46	52.47	13.36	150.80	1338.54	5887.98
2012–13	0.88	183.60	439.56	530.51	52.87	14.26	154.81	1376.48	5918.54
2013–14	1.41	194.98	439.17	542.02	56.87	13.80	158.92	1407.15	5895.92
2014–15	1.33	198.77	420.36	564.64	57.96	14.68	162.27	1420.00	5900.77
2015–16	1.30	242.46	404.56	573.81	60.06	16.83	165.78	1464.81	6044.58
2016–17	1.14	310.04	386.35	555.62	61.40	17.34	165.75	1497.64	6119.43
2017–18	1.16	344.79	381.61	579.25	62.98	19.21	165.64	1554.64	6171.70

Note: Data are not redily avaliable for missing years
Source: Environment and energy (2019c).

Table E 2.9 Gas usage—price index for gas and other household fuels, by capital city

Average over financial year ending	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	base of each index: 2011–12 = 100							
Jun–1991	39.1	42.0	39.2	37.6	38.0	51.2	41.8	35.2
Jun–1992	40.0	44.1	40.5	39.2	38.5	49.6	42.7	36.2
Jun–1993	39.8	47.5	40.8	39.8	38.5	49.7	43.5	36.5
Jun–1994	39.7	49.6	41.0	39.9	38.5	51.2	43.8	37.1
Jun–1995	39.8	51.7	41.2	40.8	38.7	51.3	45.0	37.8
Jun–1996	42.3	51.7	41.8	42.4	38.8	52.2	47.9	40.4
Jun–1997	43.3	52.7	41.8	44.0	39.0	53.6	49.2	41.9
Jun–1998	45.9	53.3	41.8	45.4	38.9	51.7	51.9	42.9
Jun–1999	47.3	50.8	41.8	46.0	39.4	51.2	54.2	44.5
Jun–2000	46.6	49.5	41.9	47.4	39.6	55.2	59.8	45.1
Jun–2001	53.2	54.1	47.8	53.7	43.9	62.9	68.0	52.1
Jun–2002	57.4	55.3	49.4	56.2	46.2	63.7	68.7	51.8
Jun–2003	62.5	58.5	51.0	59.2	47.7	67.0	70.3	55.1
Jun–2004	67.6	62.1	52.8	62.5	49.6	71.6	70.4	58.5
Jun–2005	70.1	65.4	56.1	66.9	51.4	75.1	73.4	62.2
Jun–2006	72.7	68.0	65.8	71.2	54.2	81.0	76.8	65.9
Jun–2007	75.0	70.9	70.6	74.7	56.6	80.8	83.2	68.9
Jun–2008	78.7	74.6	77.3	77.8	58.7	87.2	91.4	74.0
Jun–2009	83.0	81.8	83.8	84.9	68.5	94.8	97.9	84.8
Jun–2010	89.1	88.6	88.6	87.9	81.5	94.8	98.7	92.1
Jun–2011	94.0	94.5	93.1	93.1	89.7	96.5	104.7	95.1
Jun–2012	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Jun–2013	114.8	120.1	115.8	117.7	113.0	101.2	103.0	111.1
Jun–2014	125.8	124.8	122.2	131.6	119.2	104.2	113.5	116.1
Jun–2015	140.9	122.0	125.6	144.5	118.1	108.2	109.2	125.2
Jun–2016	121.8	130.8	128.3	150.0	119.7	110.7	105.8	131.1
Jun–2017	122.7	140.1	129.4	135.1	121.3	114.9	99.6	125.2
Jun–2018	133.1	154.3	133.6	146.0	122.2	120.2	104.2	147.5
Jun–2019	131.9	158.6	134.7	144.3	119.3	124.2	107.0	157.5

Source: ABS (2019f).

Table E 2.10 Black coal usage—Australian black coal consumption, by industry—Australia

Financial year	Agriculture, forestry and fishing	Mining	Manu-facturing	Electricity, gas, water and waste services	Cons-truction, commercial and services	Transport, postal and ware-housing	Residential	Total electricity cons-umption	Total energy cons-umption
					Petajoules				
1975–76		0.90	318.50	376.20	4.70	0.30	1.60	702.20	2 730.80
1976–77		0.80	301.60	441.50	4.70	0.30	1.00	749.70	2 905.90
1977–78		0.80	296.70	473.70	4.40	0.20	1.00	776.80	2 985.10
1978–79		0.90	302.70	483.30	4.70	0.20	0.80	792.70	3 053.10
1979–80		1.00	294.10	545.90	4.60	0.10	0.90	846.50	3 131.40
1980–81		1.10	309.80	571.40	4.40	0.10	0.80	887.60	3 146.30
1981–82		1.40	291.50	578.70	4.30	0.10	0.80	876.70	3 237.60
1982–83		1.00	243.70	619.30	4.30	0.70	0.70	869.60	3 122.70
1983–84		1.40	245.30	659.20	4.30	3.70	0.60	914.40	3 221.20
1984–85		1.70	264.20	695.10	4.30	3.40	0.60	969.20	3 370.70
1985–86		1.90	262.10	708.90	4.20	3.30	0.50	980.90	3 402.50
1986–87		3.00	265.90	730.90	4.10	3.80	0.50	1 008.10	3 514.40
1987–88		4.00	270.50	753.30	4.00	3.60	0.40	1 035.60	3 623.00
1988–89		4.30	295.70	799.00	3.90	4.00	0.30	1 107.30	3 832.70
1989–90		6.50	282.10	836.00	3.80	3.50	0.30	1 132.10	3 945.90
1990–91		6.00	279.20	848.70	3.40	3.70	0.30	1 141.30	3 949.90
1991–92		6.50	282.50	872.40	2.70	4.00	0.10	1 168.20	3 982.70
1992–93		6.50	277.10	905.60	2.30	4.10	0.10	1 195.60	4 081.80
1993–94		5.90	283.90	917.40	2.10	3.90	0.10	1 213.30	4 181.90
1994–95		7.80	282.50	946.60	1.80	4.00	0.10	1 242.80	4 365.40
1995–96		8.20	268.00	1 001.40	1.50	4.00	0.10	1 283.10	4 505.50
1996–97		8.20	276.60	1 018.50	1.30	4.30	0.10	1 309.00	4 611.10
1997–98		6.80	271.20	1 061.40	1.10	4.20	0.10	1 344.80	4 777.60
1998–99		6.70	269.20	1 081.20	1.00	4.20	0.10	1 362.40	4 884.70
1999–00		7.00	248.10	1 126.80	1.20	4.40	0.10	1 387.50	4 971.00
2000–01		6.70	231.00	1 176.10	1.30	4.90	0.10	1 418.60	5 011.80
2001–02		6.70	232.00	1 213.70	1.20	5.00	0.10	1 457.10	5 097.00
2002–03			245.45	1 176.22	1.28	5.00	0.05	1 427.99	5 138.67
2003–04			257.97	1 245.09	1.32	5.80	0.05	1 510.23	5 284.77
2004–05			265.52	1 279.52	1.32	8.00	0.05	1 554.41	5 399.20
2005–06			264.45	1 304.02	0.94	6.90	0.05	1 576.36	5 546.75
2006–07			268.12	1 325.41	0.88	7.40	0.05	1 601.86	5 724.00
2007–08			274.99	1 297.40	0.73	8.00	0.05	1 581.16	5 738.33
2008–09		8.32	225.74	1 361.18	0.66	4.87		1 600.76	5 843.56
2009–10		5.69	254.75	1 223.17	0.57	4.14		1 488.30	5 823.13
2010–11		5.58	247.81	1 146.17	0.19	2.95		1 402.69	5 902.18
2011–12		4.84	221.68	1 123.31	0.15	2.52		1 352.51	5 887.98
2012–13		3.10	224.08	1 084.68	0.11	0.00		1 311.98	5 918.54
2013–14		3.12	212.92	1 023.98	0.09	0.00		1 240.11	5 895.92
2014–15		1.35	204.62	1 045.73	0.10	0.02		1 251.81	5 900.77
2015–16		3.17	211.14	1 111.34	0.10	0.00		1 325.75	6 044.58
2016–17		3.74	212.64	1 148.76	0.10	0.01		1 365.25	6 119.43
2017–18		4.25	208.61	1 176.08	0.10	0.00		1 389.04	6 171.70

Note: data are not readily available for missing years
:Source: Environment and energy (2019c).

Table E 2.11 Black coal usage—coal prices (export)

Average over financial year ending	Hard coking coal	Semisoft coking coal	Thermal coal
		$A/tonne	
Jun–2003	69.63	50.59	39.10
Jun–2004	72.94	58.92	51.47
Jun–2005	133.55	90.72	63.34
Jun–2006	151.10	105.77	63.25
Jun–2007	117.04	75.59	59.47
Jun–2008	188.87	155.96	93.34
Jun–2009	203.04	164.57	99.19
Jun–2010	212.18	162.61	96.27
Jun–2011	266.63	207.69	100.16
Jun–2012	202.95	156.02	103.38
Jun–2013	152.38	124.09	86.66
Jun–2014	118.40	102.36	79.33
Jun–2015	117.67	105.71	77.44
Jun–2016	112.68	93.16	68.11
Jun–2017	246.88	181.70	100.83
Jun–2018	244.77	187.64	116.18

Source: Industry (2019).

Table E 2.12 Brown coal usage—Australian brown coal consumption, by industry—Australia

Financial year	Agriculture, forestry and fishing	Mining	Manu-facturing	Electricity, gas, water and waste services	Cons-truction, commercial and services	Transport, postal and ware-housing	Residential	Total electricity cons-umption	Total energy cons-umption
					Petajoules				
1975–76	0.00	21.90	4.80	260.00	0.20	0.00	0.00	286.80	2 730.80
1976–77	0.00	24.00	3.90	276.00	0.00	0.00	0.00	304.00	2 905.90
1977–78	0.00	24.80	3.80	268.80	0.00	0.00	0.00	297.40	2 985.10
1978–79	0.00	26.20	4.40	282.30	0.00	0.00	0.00	312.90	3 053.10
1979–80	0.00	29.10	3.90	288.00	0.00	0.00	0.00	321.00	3 131.40
1980–81	0.00	25.10	4.10	282.80	0.00	0.00	0.00	312.00	3 146.30
1981–82	0.00	23.10	3.70	330.90	0.00	0.00	0.00	357.70	3 237.60
1982–83	0.00	17.00	3.80	308.70	0.00	0.00	0.00	329.40	3 122.70
1983–84	0.00	17.30	3.60	295.70	0.00	0.00	0.00	316.50	3 221.20
1984–85	0.00	18.50	3.40	347.30	0.00	0.00	0.00	369.20	3 370.70
1985–86	0.00	18.80	3.50	327.80	0.00	0.00	0.00	350.10	3 402.50
1986–87	0.00	18.20	3.30	383.60	0.00	0.00	0.00	405.00	3 514.40
1987–88	0.00	18.00	3.60	403.30	0.00	0.00	0.00	424.90	3 623.00
1988–89	0.00	15.80	2.10	457.00	0.00	0.00	0.00	474.80	3 832.70
1989–90	0.00	15.80	0.80	434.10	0.00	0.00	0.00	450.70	3 945.90
1990–91	0.00	16.00	0.50	467.60	0.00	0.00	0.00	484.10	3 949.90
1991–92	0.00	17.90	0.50	478.90	0.00	0.00	0.00	497.30	3 982.70
1992–93	0.00	11.30	0.50	455.00	0.00	0.00	0.00	466.80	4 081.80
1993–94	0.00	13.10	0.60	460.60	0.00	0.00	0.00	474.30	4 181.90
1994–95	0.00	12.70	0.60	478.70	0.00	0.00	0.00	492.00	4 365.40
1995–96	0.00	11.60	0.50	502.20	0.00	0.00	0.00	514.40	4 505.50
1996–97	0.00	13.70	0.50	544.90	0.00	0.00	0.00	559.10	4 611.10
1997–98	0.00	11.10	0.40	625.00	0.00	0.00	0.00	636.50	4 777.60
1998–99	0.00	8.60	0.00	660.40	0.00	0.00	0.00	669.10	4 884.70
1999–00	0.00	10.30	0.00	662.20	0.00	0.00	0.00	672.50	4 971.00
2000–01	0.00	8.10	0.00	657.80	0.00	0.00	0.00	666.00	5 011.80
2001–02	0.00	11.80	0.00	661.60	0.00	0.00	0.00	673.40	5 097.00
2002–03	0.00	0.00	13.18	685.90	0.00	0.00	0.00	699.08	5 138.67
2003–04	0.00	0.00	9.85	704.71	0.00	0.00	0.00	714.55	5 284.77
2004–05	0.00	0.00	10.33	701.41	0.00	0.00	0.00	711.74	5 399.20
2005–06	0.00	0.00	7.94	717.20	0.00	0.00	0.00	725.14	5 546.75
2006–07	0.00	0.00	7.47	714.45	0.00	0.00	0.00	721.92	5 724.00
2007–08	0.00	0.00	7.03	718.03	0.00	0.00	0.00	725.06	5 738.33
2008–09	0.00	0.00	6.22	743.52	0.00	0.00	0.00	749.74	5 843.56
2009–10	0.00	0.00	4.92	737.05	0.00	0.00	0.00	741.96	5 823.13
2010–11	0.00	0.00	5.56	722.60	0.00	0.00	0.00	728.16	5 902.18
2011–12	0.00	0.00	6.51	732.79	0.00	0.00	0.00	739.30	5 887.98
2012–13	0.00	0.00	6.10	639.60	0.00	0.00	0.00	645.70	5 918.54
2013–14	0.00	0.00	5.96	621.83	0.00	0.00	0.00	627.78	5 895.92
2014–15	0.00	0.00	1.05	668.06	0.00	0.00	0.00	669.12	5 900.77
2015–16	0.00	0.00	0.05	642.84	0.00	0.00	0.00	642.89	6 044.58
2016–17	0.00	0.00	0.05	576.24	0.00	0.00	0.00	576.29	6 119.43
2017–18	0.00	0.00	0.00	466.78	0.00	0.00	0.00	466.78	6 171.70

Source: Environment and energy (2019c).

Table E 2.13 Petroleum usage—Australian petroleum consumption, by industry—Australia

Financial year	Agriculture, forestry and fishing	Mining	Manu-facturing	Electricity, gas, water and waste services	Cons-truction, commercial and services	Transport, postal and ware-housing	Residential	Total electricity cons-umption	Total energy cons-umption
					Petajoules				
1981–82	47.90	24.10	266.10	58.40	57.40	824.90	24.80	1 331.10	3 237.60
1982–83	43.30	22.30	221.20	51.50	51.70	809.13	21.60	1 250.13	3 122.70
1983–84	49.60	22.20	244.20	50.10	49.20	832.76	19.90	1 293.36	3 221.20
1984–85	48.30	23.40	228.70	44.10	47.00	862.24	19.80	1 295.64	3 370.70
1985–86	47.30	24.10	217.50	38.40	51.00	870.36	18.00	1 290.56	3 402.50
1986–87	49.30	26.90	215.30	29.70	51.40	887.93	17.90	1 297.73	3 514.40
1987–88	48.10	27.30	231.00	24.30	56.40	931.65	16.60	1 356.05	3 623.00
1988–89	51.00	32.10	237.30	31.50	59.10	965.66	16.10	1 413.86	3 832.70
1989–90	48.70	36.90	232.20	42.10	59.30	971.48	16.60	1 428.28	3 945.90
1990–91	49.20	37.90	235.80	42.60	56.30	962.43	16.40	1 421.93	3 949.90
1991–92	50.10	39.50	229.60	30.60	55.70	977.53	16.90	1 423.53	3 982.70
1992–93	51.60	41.70	243.90	30.90	54.40	1005.09	17.90	1 468.29	4 081.80
1993–94	53.40	43.90	248.50	30.70	53.40	1028.92	16.50	1 505.32	4 181.90
1994–95	55.20	46.60	255.70	34.50	52.40	1092.43	16.30	1 585.23	4 365.40
1995–96	55.40	53.80	257.70	35.90	51.10	1127.10	15.90	1 630.40	4 505.50
1996–97	57.60	60.30	223.50	28.80	50.10	1144.86	16.00	1 620.36	4 611.10
1997–98	59.00	62.00	235.40	26.80	49.00	1150.39	15.50	1 639.29	4 777.60
1998–99	61.10	63.30	239.30	25.40	47.60	1161.77	14.70	1 653.97	4 884.70
1999–00	63.20	64.90	243.70	23.80	47.10	1190.54	15.40	1 697.54	4 971.00
2000–01	77.70	73.80	222.80	20.70	45.00	1190.71	15.10	1 682.71	5 011.80
2001–02	78.80	79.40	220.40	20.90	46.20	1190.68	15.20	1 696.68	5 097.00
2002–03	87.73	95.93	235.69	29.33	44.30	1232.04	15.75	1 740.86	5 138.67
2003–04	87.90	100.80	265.26	36.23	45.83	1293.53	14.23	1 843.87	5 284.77
2004–05	92.69	115.25	284.06	37.93	45.64	1320.61	12.77	1 909.05	5 399.20
2005–06	87.76	110.64	283.66	40.62	47.40	1349.97	15.23	1 935.48	5 546.75
2006–07	84.78	105.92	285.71	38.58	48.03	1384.75	14.50	1 962.46	5 724.00
2007–08	85.75	112.28	290.40	53.82	48.87	1413.65	16.25	2 021.21	5 738.33
2008–09	85.47	122.16	269.03	39.87	48.71	1423.10	16.29	2 004.83	5 843.56
2009–10	87.58	127.34	265.47	35.70	48.37	1451.63	15.85	2 032.14	5 823.13
2010–11	88.01	146.59	307.64	34.72	50.12	1485.31	16.71	2 129.42	5 902.18
2011–12	89.26	182.76	345.06	39.23	50.61	1508.42	16.38	2 231.90	5 887.98
2012–13	90.44	217.56	344.12	40.35	51.73	1532.87	16.74	2 294.04	5 918.54
2013–14	89.40	223.48	331.07	52.03	52.82	1551.06	16.49	2 316.50	5 895.92
2014–15	94.74	209.33	272.55	62.98	54.12	1573.45	16.06	2 283.38	5 900.77
2015–16	100.45	208.98	241.52	57.23	53.37	1600.62	17.56	2 279.93	6 044.58
2016–17	108.06	222.41	230.94	56.09	54.40	1647.33	15.44	2 334.90	6 119.43
2017–18	108.77	240.93	218.72	54.42	56.64	1684.97	15.54	2 380.07	6 171.70

np: Not available for publication but included in the totals.

Notes: Manufacturing figures do not include solvents, lubricants or bituman which are included in the total energy consumption.

Construction, commercial and services figures do not include LPG which is included in the total energy consumption.

Total petroleum consumption figures do not include crude oil and other refinary feedstock which are included in the total energy consumption.

petroleum products includes: Crude oil and other refinery feedstock, LPG, auto-gasoline leaded, auto-gasoline unleaded, aviation gasoline, aviation turbine fuel, lighting kerosene, power kerosene, heating oil, automotive diesel oil (ADO), industrial diesel fuel (IDF), Fuel oil, petroleum products nec, Solvents, Lubricants and greases

Source: Environment and energy (2019c).

Table E 2.14 Petroleum usage—world crude oil prices, by region of origin

Average over financial year	World Trade Weighted	Dubai	Brent	West Texas Intermediate	Gippsland	Tapis
			US$/bbl			
1991–92	17.76	16.96	19.61	20.89		
1992–93	17.74	16.91	19.08	20.52		
1993–94	14.45	13.88	15.51	16.74		
1994–95	16.83	16.20	17.31	18.48		
1995–96	17.44	16.30	17.92	19.38		
1996–97	20.55	19.35	21.20	22.47		
1997–98	14.88	15.10	16.47	17.59	16.52	18.04
1998–99	12.08	12.61	13.01	14.49	13.33	13.07
1999–00	23.73	22.96	25.07	25.84	25.00	24.33
2000–01	26.35	26.25	28.90	30.10	29.48	29.23
2001–02	21.24	21.78	22.75	23.80	23.01	24.15
2002–03	26.21	25.90	27.78	29.86	28.59	28.79
2003–04	29.20	29.47	31.31	33.76	32.99	33.20
2004–05	41.43	40.80	46.24	48.80	48.36	49.18
2005–06	57.52	58.32	62.42	64.27	64.60	66.73
2006–07	59.96	61.27	63.94	63.37	67.53	69.32
2007–08	92.23	90.42	95.27	96.85	98.45	100.87
2008–09	67.21	63.88	68.75		71.07	74.13
2009–10	73.39	73.44	74.51	75.15	76.53	77.46
2010–11	93.11	75.07	96.00	89.29	98.87	100.74
2011–12	106.27	109.17	112.09	95.05	116.07	120.53
2012–13	na	105.71	108.63	92.15	109.25	114.45
2013–14	na	105.94	109.34	101.27	na	115.55
2014–15	na	73.12	74.21	70.03	na	77.13
2015–16	na	43.04	46.01	45.53	na	47.45
2016–17	na	49.74	50.19	48.18	na	51.38
2017–18	na	71.75	74.56	67.97	na	76.12

See end notes.

Note: Data are not readily available for missing years.

na: not available.

Source: Industry (2019).

CHAPTER 3
Energy safety and emissions

Table E 3.1a Energy safety—number of hospital admissions (separations) due to exposure to electricity, radiation, extreme temperature/pressure—public hospitals

Financial year	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Australia
2003–04	364	254	376	175	98	112	4	33	1 416
2004–05	349	212	302	167	99	95	7	12	1 243
2005–06	354	223	299	132	89	54	18	20	1 189
2006–07	357	242	272	128	85	61	10	14	1 169
2007–08	361	263	300	245	88	52	8	24	1 341
2008–09	340	223	251	381	85	49	11	15	1 355
2009–10	292	250	282	506	80	34	12	17	1 473
2010–11	290	262	326	325	55	27	5	21	1 311
2011–12	np	np	np	np	np	np	np	np	1 256
2012–13	np	np	np	np	np	np	np	np	1 108
2013–14	np	np	np	np	np	np	np	np	1 073
change in methodology									
2014–15	np	np	np	np	np	np	np	np	695
2015–16	np	np	np	np	np	np	np	np	766
2016–17	np	np	np	np	np	np	np	np	826
2017–18	np	np	np	np	np	np	np	np	782

See end notes.

Note: Data since 2014–15 should not be compared with previous years see end notes
Data on state of hospitalisation should be interpreted with caution because of cross-border flows of patients.

np Not available for publication but included in the totals.

Source: AIHW (2019a).

Table E 3.1b Energy safety—number of hospital admissions (separations) due to exposure to electricity, radiation, extreme temperature/pressure—private hospitals

Financial year	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Australia
2003–04	59	12	85	10	7	np	np	np	180
2004–05	34	18	114	17	7	np	np	np	194
2005–06	40	19	128	19	9	np	np	np	219
2006–07	37	11	84	26	48	np	np	np	212
2007–08	35	9	68	38	59	np	np	np	214
2008–09	50	17	107	16	5	np	np	np	204
2009–10	32	17	92	30	2	np	np	np	178
2010–11	49	26	78	22	5	np	np	np	186
2011–12	np	np	np	np	np	np	np	np	140
2012–13	np	np	np	np	np	np	np	np	189
2013–14	np	np	np	np	np	np	np	np	196
change in methodology									
2014–15	np	np	np	np	np	np	np	np	39
2015–16	np	np	np	np	np	np	np	np	23
2016–17	np	np	np	np	np	np	np	np	36
2017–18	np	np	np	np	np	np	np	np	31

See end notes.

Note: Data since 2014–15 should not be compared with previous years.
Data on state of hospitalisation should be interpreted with caution because of cross–border flows of patients.
Data are not readily available for missing years.

np: Not available for publication but included in the totals.

Source: AIHW (2019a).

Table E 3.2 Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions, by type of emissions

Year	Carbon dioxide	Methane	Nitrous oxide
		gigagrams of CO_2 equivalent	
1991	131 266.5	33.4	421.8
1992	134 115.6	34.0	428.0
1993	135 024.2	34.5	444.5
1994	136 597.2	35.6	445.6
1995	142 196.8	38.2	464.3
1996	147 213.2	39.4	476.2
1997	152 193.0	40.0	527.3
1998	164 724.5	83.8	587.4
1999	170 956.4	85.2	577.4
2000	174 647.8	149.3	612.2
2001	181 825.9	157.0	699.3
2002	183 036.4	149.4	795.4
2003	185 522.3	144.3	883.4
2004	193 540.4	150.6	907.9
2005	195 666.7	143.9	948.4
2006	200 199.6	157.4	954.2
2007	202 966.7	340.2	996.9
2008	204 797.8	174.4	980.3
2009	210 254.0	392.5	1 048.0
2010	203 738.6	356.8	1 000.1
2011	197 146.0	243.4	1 108.2
2012	197 716.7	330.7	1 069.5
2013	185 720.4	283.7	1 044.5
2014	179 408.7	394.8	985.4
2015	187 753.4	463.5	772.4
2016	193 307.2	660.2	775.4
2017	188 411.2	606.5	752.9

Source: Environment and Energy (2019a).

Table E 3.3 Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions, selected fuels

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Automotive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
	gigagrams of CO_2 equivalent									
1991	77 388.6	47 785.2		1 239.2	2 740.7	12.1		11 571.7		
1992	79 268.3	49 323.2		447.4	2 687.2	3.6		12 446.5		
1993	82 256.2	46 811.2		463.8	2 733.8	3.6		13 364.9		
1994	81 818.9	47 215.0		445.4	2 791.8	3.6		13 962.6		
1995	83 891.3	48 936.2		431.4	3 134.2	3.6		15 468.2		
1996	86 719.4	51 069.8		486.3	3 210.2	1.2		15 183.1		
1997	89 615.0	55 355.1		413.0	2 915.1	1.2		15 468.9		
1998	93 739.1	62 141.0		248.6	3 064.7	1.2	284.0	16 613.3		
1999	96 118.6	64 791.2		331.9	2 904.7	17.3	318.7	18 263.9		
2000	97 989.0	66 161.4		305.4	2 863.3	16.1	391.6	18 700.4	0.3	59.5
2001	103 727.1	65 802.0		468.7	2 630.8	27.3	463.8	20 679.6	0.2	58.3
2002	106 684.5	64 062.5		340.3	2 808.4	13.3	485.8	21 859.8	0.0	47.1
2003	107 959.5	65 397.9		360.3	5 269.6	27.2	847.9	19 491.7	5.9	48.9
2004	111 663.8	68 158.4		293.4	6 375.0	19.0	872.4	21 744.2	1.6	50.3
2005	112 053.6	67 216.0		349.8	7 196.8	34.2	1 385.0	23 396.6	7.2	38.9
2006	115 722.9	67 498.6		426.7	7 055.9	39.9	2 081.7	23 980.7	7.8	42.7
2007	115 212.8	67 175.2		444.4	6 432.4	25.1	2 473.7	27 660.7	7.5	42.2
2008	115 938.9	66 837.2		464.9	7 066.4	24.1	2 241.0	28 699.8	12.6	58.4
2009	116 986.5	69 078.1		233.6	7 062.0	106.4	2 331.0	31 044.3	7.6	71.8
2010	110 374.5	68 937.9		179.6	7 066.0	84.8	3 604.2	30 343.2	9.5	73.0
2011	104 215.2	67 600.7		154.4	7 645.0	69.2	4 086.6	31 074.7	6.9	76.6
2012	101 993.7	68 936.1		124.2	9 057.7	88.5	5 932.5	30 671.0	4.7	81.4
2013	99 172.3	59 660.6		113.9	10 186.4	2.3	4 970.7	31 553.8	27.2	72.1
2014	93 506.4	57 282.9		510.2	10 607.5	28.6	3 923.9	33 646.4	29.9	87.7
2015	94 913.7	61 996.5		190.4	11 142.7	24.3	5 478.5	33 412.2	32.5	89.1
2016	101 433.9	60 198.8		254.1	10 997.8	2.7	6 616.0	36 796.0	38.1	89.2
2017	104 070.8	53 858.6		456.5	11 532.4	2.0	3 014.6	41 623.7	43.3	85.9

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: Environment and Energy (2019a).

Table E 3.4 Energy emissions—Public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—by type of fuel—Australia

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petro-leum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
	gigagrams of CO_2 equivalent									
2000	97 125.7	66 115.9		218.8	1 310.9		391.6	9 894.5	0.3	59.5
2001	103 117.3	65 743.3		348.9	1 006.3		463.8	11 655.1	0.2	58.3
2002	105 985.7	63 941.4		208.1	1 152.1		485.8	12 015.4	0.0	47.1
2003	106 737.3	65 160.2		267.7	1 691.4	8.4	602.1	11 841.1	5.9	48.9
2004	110 673.5	67 585.8		205.0	2 247.7		609.8	13 486.0	1.6	50.3
2005	111 263.1	66 913.2		271.2	2 261.9	0.7	1 103.5	14 826.3	7.2	38.9
2006	114 299.9	67 434.6		357.0	2 357.6	1.0	1 780.8	14 929.5	7.8	42.7
2007	113 499.8	67 114.0		376.6	2 225.8	0.9	2 152.3	18 609.6	7.5	42.2
2008	114 256.9	66 745.2		396.4	2 769.9	0.9	1 834.8	19 715.3	12.6	58.4
2009	116 147.1	68 996.7		113.1	2 426.7	0.8	1 827.0	21 666.9	7.6	71.8
2010	109 114.6	68 873.8		101.2	2 171.8		3 134.3	21 263.5	9.5	73.4
2011	102 830.5	67 523.4		97.4	2 188.6		3 379.3	22 091.7	6.9	76.6
2012	100 824.8	68 801.4		90.0	2 423.7		5 187.8	21 377.9	4.7	81.4
2013	97 898.0	59 584.3		80.4	2 489.8		4 191.3	22 391.2	27.2	72.1
2014	92 436.6	57 162.3		492.3	2 810.9	22.6	3 051.5	24 203.2	29.9	87.7
2015	94 096.5	61 993.0		170.5	3 859.3	4.7	4 141.8	24 169.7	32.5	89.1
2016	100 605.5	60 198.8		242.4	3 493.2	1.2	3 253.0	26 506.9	38.1	89.2
2017	103 330.8	53 858.6		429.0	3 445.1	0.0	1 860.7	26 445.8	43.3	85.9

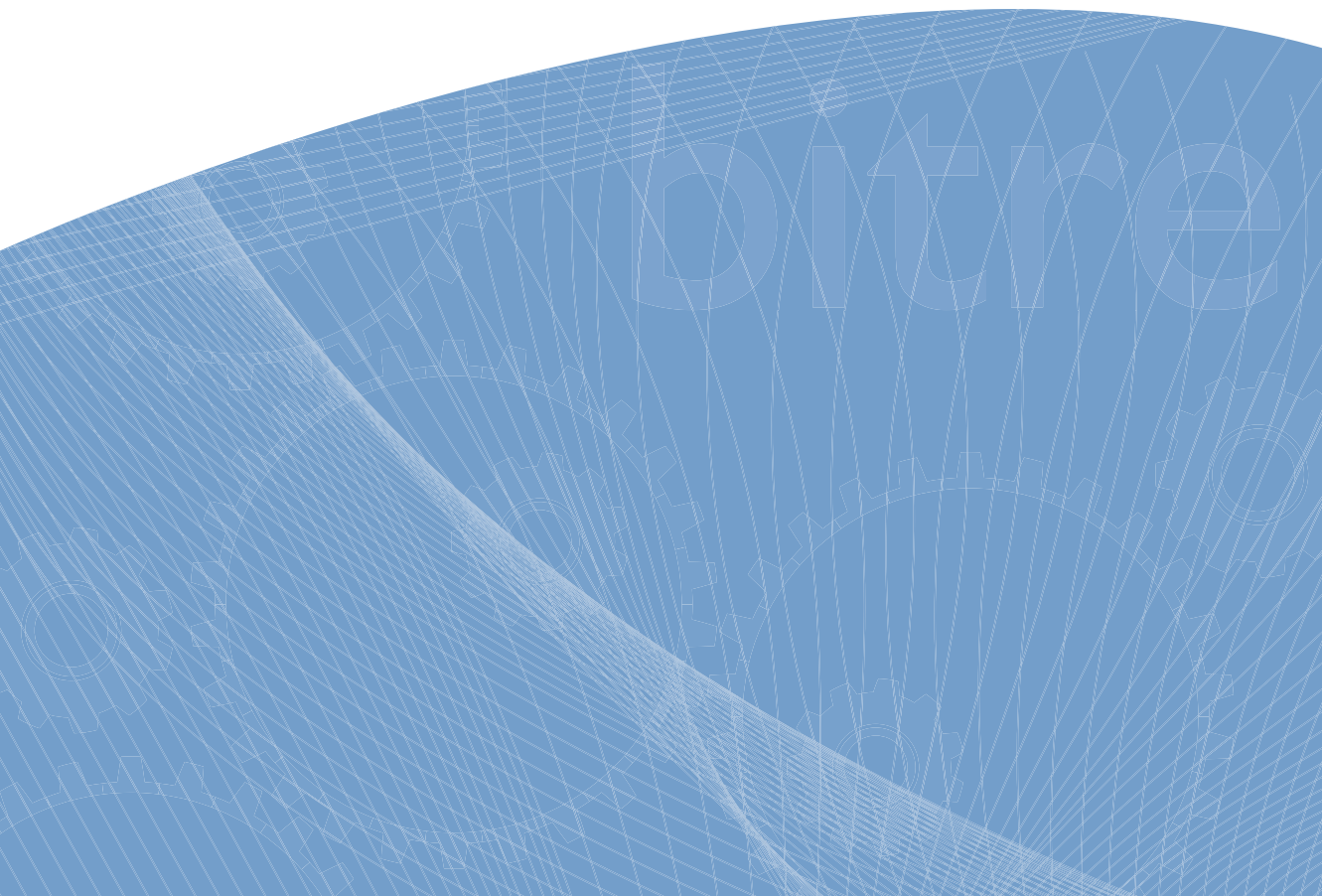
Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: Environment and Energy (2019a).

Table E 3.5 Energy emissions—Natural gas transmission greenhouse gas (carbon dioxide equivalent) emissions, by type of fuel—Australia

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petro-leum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
	gigagrams of CO_2 equivalent									
1991								102.7		
1992								108.0		
1993								112.2		
1994								118.1		
1995								125.2		
1996								137.8		
1997								146.3		
1998								146.5		
1999								180.3		
2000								197.6		
2001								203.1		
2002								208.7		
2003								214.4		
2004								221.2		
2005								230.0		
2006								252.2		
2007								268.0		
2008								279.6		
2009								283.2		
2010								297.6		
2011								293.5		
2012								294.6		
2013								288.9		
2014								290.9		
2015								308.0		
2016								314.8		
2017								320.7		

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: Environment and Energy (2019a).

PART C: Communications



PART C
Communications

Telecommunications networks are a vital part of Australian infrastructure, with networks now in a period of significant transition.

Readers should take the rapid developments in communications technology into account when analysing time series statistics for communications networks. The deployment of the National Broadband Network (NBN) represents a significant investment in a fibre optic network. This investment is reflected in the statistics over the years of the NBN deployment.

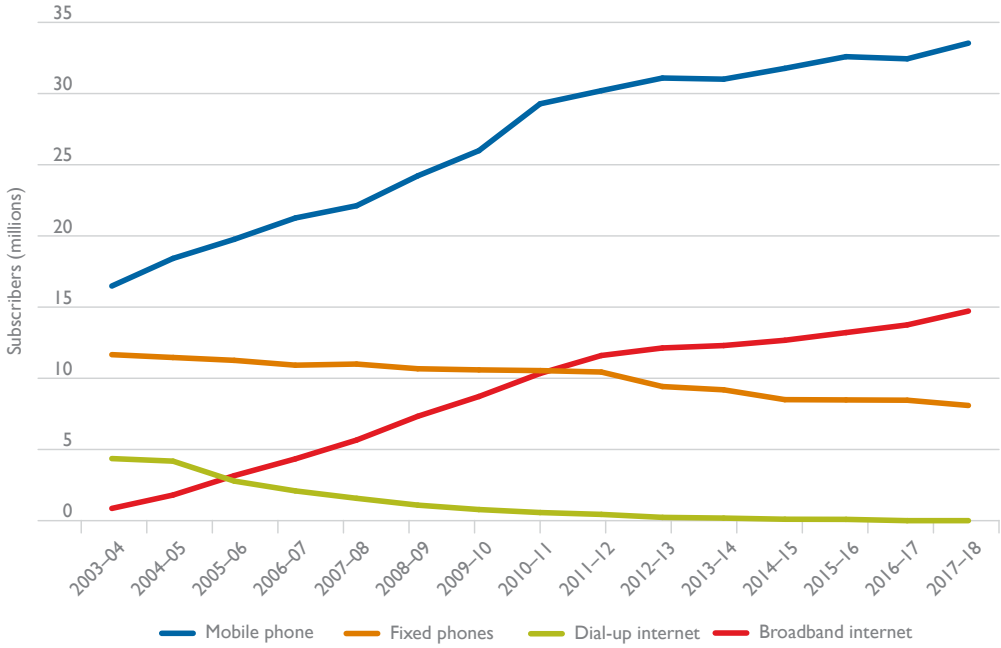
Traditional measures of infrastructure construction activity only provide a partial picture of the capacity and usage of communications infrastructure as they only measure investment in the physical infrastructure networks. Information technology upgrades that provide additional functionality or new services on existing networks, along with network upgrades that extend geographic coverage, have been major drivers of increased infrastructure capacity in the communications industry.

Major drivers of communications infrastructure activity over recent years have been:

- increasing international bandwidth capacity;
- growth in domestic backhaul transmission capacity (infrastructure connecting access nodes to the core network);
- a broadening range of internet access technologies available, including digital subscriber line (DSL) and wireless broadband network deployments (with increasing intensity of use and reliance on radio communications spectrum allocations);
- mobile network extensions for 3G and 4G mobile services; and
- the convergence of networks, devices and service.

Figure C1 demonstrates the take-up of mobile phones and broadband internet over the last ten years, and the decline of the number of subscribers to the older technologies of dial-up internet and fixed phones.

Figure C 1 Communications services—number of services, by communications medium



Source: BITRE (2019) and ACMA (2019).

CHAPTER 1
Communications infrastructure

Table C 1.1 Flow of new infrastructure—value of telecommunications engineering construction work done by sector of construction and sector of ownership, adjusted by chain volume index, 2016–17 prices

Financial year	Private sector for the private sector	Private sector for the public sector	Public sector	Telecommunications infrastructure engineering construction work done	Telecommunications percentage of total major infrastructure engineering construction work done
		$ million			*per cent*
1987–88	16.2	64.3	3 896.2	3 976.8	22.93
1988–89	17.1	14.6	4 189.3	4 221.1	24.42
1989–90	13.7	22.6	4 593.3	4 629.6	23.93
1990–91	18.1	42.7	4 662.0	4 722.8	23.70
1991–92	13.7	61.9	3 546.7	3 622.4	20.04
1992–93	138.1	45.4	3 519.6	3 703.1	19.06
1993–94	164.6	61.2	3 180.8	3 406.5	16.52
1994–95	141.8	23.4	4 275.2	4 440.5	20.99
1995–96	370.6	49.6	4 963.5	5 383.8	24.01
1996–97	314.4	13.4	4 939.9	5 267.8	23.44
1997–98	125.3	60.0	5 063.0	5 248.2	21.46
1998–99	204.1	40.5	5 329.1	5 573.7	20.86
1999–00	626.3	236.0	6 127.6	6 989.9	24.18
2000–01	1 086.0	453.1	5 205.5	6 744.6	25.58
2001–02	618.5	548.1	4 754.3	5 920.9	22.88
2002–03	588.4	465.4	4 199.4	5 253.1	18.36
2003–04	1 238.8	71.5	3 514.4	4 824.7	14.92
2004–05	1 416.6	244.2	3 696.4	5 357.2	14.47
2005–06	1 755.9	84.1	4 960.5	6 800.4	16.59
2006–07	4 555.2	50.1	1 856.8	6 462.1	14.75
2007–08	5 470.3	30.0	[a] 8.5	5 500.3	10.88
2008–09	4 536.1	55.7	8.2	4 600.0	8.55
2009–10	4 214.0	196.9	11.2	4 422.1	8.16
2010–11	4 064.6	297.2	6.7	4 368.6	7.37
2011–12	4 792.8	573.4	5.2	5 371.5	8.18
2012–13	4 823.4	1 269.5	10.2	6 103.1	8.82
2013–14	5 015.3	2 138.9	8.2	7 162.3	11.73
2014–15	4 770.2	2 760.0	1.9	7 532.2	14.67
2015–16	5 050.2	3 847.0	11.9	8 909.1	19.29
2016–17	6 210.2	5 027.4	6.1	11 243.7	22.78
2017–18	5 607.8	4 666.1	10.2	10 284.1	17.01
2018–19	4 104.5	5 046.1	7.2	9 157.8	15.97

[a] Following the third tranche of privatisation of Telstra, ABS classifies Telstra investment as private sector rather than public sector investment.

Source: ABS (2019h).

Table C 1.2a Flow of new infrastructure—capital investment by selected communications industries—gross fixed capital formation[e]

Financial year	Broadcasting (except internet)	Internet publishing and broadcasting [b]	Telecom-munications services	Internet service providers, web search portals and data processing services [b]	Publishing, motion picture and sound recording, and library and other information services [c d]	TOTAL information media and telecom-munications industry
	$ million, 2016–17 prices					
2008–09	552	23	np	np	1 037	10 018
2009–10	496	30	7 779	199	687	9 191
2010–11	475	38	7 997	236	688	9 434
2011–12	349	23	8 403	178	770	9 723
2012–13	282	34	9 035	245	666	10 263
2013–14	504	63	9 287	490	804	11 148
2014–15	599	103	9 641	498	630	11 471
2015–16	529	40	10 457	615	628	12 271
2016–17	461	66	12 133	1 323	592	14 269
2017–18	542	111	11 742	2 273	605	15 273

[b] Estimate has a relative standard error between 10% and 25%.

[c] Estimate has a relative standard error of 25% to 50%.

[d] This series groups several industries into the one measure. Relative standard errors were calculated for component series, but are not available for the new measure.

[e] Gross fixed capital expenditure represents expenditure on fixed assets that excludes repair and maintenance expenses, but includes all costs associated with own-account capital formation. Fixed assets include all produced assets (physical assets, cultivated assets and intellectual property products) that are used in processes of production for more than one year. Non-produced assets such as spectrum assets are not included in gross fixed capital formation.

np Not available for publication but included in total where applicable.

Source: ABS (2019b, 2019f).

Table C 1.2b Flow of new infrastructure—capital investment by selected communications industries—net capital expenditure[f]

Financial year	Broadcasting (except internet)	Internet publishing and broadcasting	Tele–communications services	Internet service providers, web search portals and data processing services	Publishing, motion picture and sound recording, and library and other information services[d]	TOTAL information media and tele–communications industry
	$ million, 2016–17 prices					
2008–09	565	np	np	np	904	10 216
2009–10	520	np	7 816	263	843	9 490
2010–11	424	154	8 203	[b] 354	679	9 509
2011–12	np	32	np	np	845	10 206
2012–13	282	np	np	np	733	np
2013–14	560	33	np	691	858	np
2014–15	np	np	np	np	np	12 032
2015–16	607	np	np	777	310	12 971
2016–17	491	np	np	1 664	965	np
2017–18	np	np	np	2 918	644	np

[b] Estimate has a relative standard error between 10% and 25%.

[d] This series groups several industries into the one measure. Relative standard errors were calculated for component series, but are not available for the new measure.

[f] Net capital expenditure represents expenditure on all forms of capital, net of depreciation of fixed capital. This measure of capital expenditure includes non-produced assets such as spectrum assets.

np: Not available for publication but included in total where applicable.

Source: ABS (2019b, 2019f).

Table C 1.2c Flow of new infrastructure—capital investment by selected communications industries—depreciation and amortisation

Financial year	Broadcasting (except internet)	Internet publishing and broadcasting	Tele-communications services	Internet service providers, web search portals and data processing services	Publishing, motion picture and sound recording, and library and other information services[d]	TOTAL information media and tele-communications industry
	$ million, 2016–17 prices					
2008–09	976	12	7 262	183	880	9 315
2009–10	871	26	7 329	208	910	9 343
2010–11	894	36	7 385	233	789	9 336
2011–12	1 047	37	7 217	336	831	9 466
2012–13	1 241	39	7 366	323	832	9 801
2013–14	1 301	np	7 623	353	816	10 139
2014–15	1 272	38	7 372	380	837	9 900
2015–16	1 361	38	7 348	382	713	9 842
2016–17	1 360	110	8 078	695	579	10 822
2017–18	1 301	113	np	967	238	11 632

[b] Estimate has a relative standard error between 10% and 25%.

[c] Estimate has a relative standard error of 25% to 50%.

[d] This series groups several industries into the one measure. Relative standard errors were calculated for component series, but are not available for the new measure.

Source: ABS (2019b, 2019f).

CHAPTER 2
Investment in information technology

Table C 2.1 Investment in information technology—information media and telecommunications industry [g] investment in information technology gross fixed capital formation [1], chain volume measures

Financial year	Information media and telecommunications industry investment in IT				Total Australian investment in information technology	Information media and telecommunications industry percentage of total
	Computers and peripherals	Electrical and electronic equipment	Intellectual property products—Computer software	TOTAL investment in IT by the information media and telecommunications industry		
	$ million					*per cent*
1976–77	0	88	4	92	525	17.52
1977–78	0	85	4	89	552	16.12
1978–79	0	99	5	104	619	16.80
1979–80	0	96	6	102	619	16.48
1980–81	0	108	9	117	750	15.60
1981–82	1	122	12	135	853	15.83
1982–83	1	119	16	136	827	16.44
1983–84	1	171	21	193	1 201	16.07
1984–85	1	216	25	242	1 344	18.01
1985–86	2	315	35	352	1 559	22.58
1986–87	2	233	39	274	1 729	15.85
1987–88	2	253	66	321	1 853	17.32
1988–89	3	275	72	350	2 034	17.21
1989–90	3	366	112	481	2 364	20.35
1990–91	4	320	130	454	2 224	20.41
1991–92	4	344	186	534	2 558	20.88
1992–93	8	564	330	902	3 209	28.11
1993–94	5	389	388	782	3 378	23.15
1994–95	10	500	415	925	3 742	24.72
1995–96	14	558	479	1 051	4 209	24.97
1996–97	20	703	555	1 278	5 036	25.38
1997–98	18	502	571	1 091	6 119	17.83
1998–99	31	598	666	1 295	6 445	20.09
1999–00	56	1 002	787	1 845	8 294	22.24
2000–01	82	1 468	1 048	2 598	9 709	26.76
2001–02	68	1 167	1 085	2 320	10 056	23.07
2002–03	76	1 139	1 053	2 268	12 398	18.29
2003–04	52	923	1 018	1 993	14 165	14.07
2004–05	71	1 119	1 135	2 325	15 815	14.70
2005–06	98	1 151	1 258	2 507	17 185	14.59
2006–07	89	1 288	1 217	2 594	18 749	13.84
2007–08	148	1 351	1 159	2 658	20 963	12.68
2008–09	138	1 279	1 131	2 548	21 498	11.85
2009–10	163	959	1 268	2 390	21 547	11.09
2010–11	223	1 072	1 673	2 968	23 754	12.49
2011–12	207	1 075	1 800	3 082	25 962	11.87
2012–13	181	895	1 852	2 928	27 556	10.63
2013–14	164	963	2 127	3 254	27 150	11.99
2014–15	134	1 149	2 080	3 363	29 264	11.49
2015–16	218	1 459	2 364	4 041	29 894	13.52
2016–17	227	1 442	2 794	4 463	32 172	13.87
2017–18	142	1 158	3 474	4 774	35 887	13.30
2018–19	196	1 525	3 672	5 393	38 922	13.86

See end notes.

[g] Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2.

Source: ABS (2019d).

Table C 2.2 Consumption of information technology—information media and telecommunications industry[g] consumption of information technology fixed capital, chain volume measures

Financial year	Information media and telecommunications industry consumption of IT				Total Australian consumption of information technology fixed capital	Information media and telecommunications industry percentage of total
	Computers and peripherals	Electrical and electronic equipment	Intellectual property products—Computer software	TOTAL consumption of IT fixed capital by the information media and telecommunications industry		
			$ million			*per cent*
1975–76	0	76	1	77	376	20.48
1976–77	0	77	2	79	395	20.00
1977–78	0	79	2	81	417	19.42
1978–79	0	80	3	83	441	18.82
1979–80	0	82	4	86	466	18.45
1980–81	0	84	5	89	496	17.94
1981–82	0	87	6	93	535	17.38
1982–83	0	90	8	98	576	17.01
1983–84	0	94	11	105	626	16.77
1984–85	1	103	14	118	699	16.88
1985–86	1	117	18	136	791	17.19
1986–87	1	131	23	155	907	17.09
1987–88	1	142	30	173	1 043	16.59
1988–89	2	155	40	197	1 192	16.53
1989–90	2	172	57	231	1 402	16.48
1990–91	2	189	83	274	1 657	16.54
1991–92	3	206	115	324	1 916	16.91
1992–93	4	230	167	401	2 224	18.03
1993–94	5	256	237	498	2 557	19.48
1994–95	5	278	304	587	2 876	20.41
1995–96	7	305	366	678	3 193	21.23
1996–97	9	339	431	779	3 574	21.80
1997–98	12	369	493	874	4 071	21.47
1998–99	15	394	552	961	4 637	20.72
1999–00	23	439	624	1 086	5 312	20.44
2000–01	35	520	728	1 283	6 153	20.85
2001–02	48	607	849	1 504	7 027	21.40
2002–03	58	678	951	1 687	8 014	21.05
2003–04	63	734	1 034	1 831	9 248	19.80
2004–05	66	786	1 111	1 963	10 620	18.48
2005–06	72	845	1 190	2 107	12 029	17.52
2006–07	79	907	1 252	2 238	13 439	16.65
2007–08	90	972	1 273	2 335	14 951	15.62
2008–09	107	1 030	1 258	2 395	16 471	14.54
2009–10	121	1 063	1 252	2 436	17 868	13.63
2010–11	142	1 081	1 323	2 546	19 354	13.15
2011–12	165	1 098	1 465	2 728	21 050	12.96
2012–13	177	1 103	1 615	2 895	22 742	12.73
2013–14	181	1 099	1 772	3 052	24 156	12.63
2014–15	176	1 101	1 896	3 173	25 432	12.48
2015–16	176	1 122	1 982	3 280	26 649	12.31
2016–17	185	1 153	2 112	3 450	27 856	12.39
2017–18	186	1 168	2 353	3 707	29 453	12.59
2018–19	183	1 185	2 679	4 047	31 530	12.84

See end notes.

[g] Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2.

Source: ABS (2019d).

Table C 2.3 Stock of information technology—information media and telecommunications industry[g] net capital stock of information technology assets, chain volume measures

Financial year	Information media and telecommunications industry stock of IT assets				Total stock of information technology	Information media and telecommunications industry percentage of total
	Computers and peripherals	Electrical and electronic equipment	Intellectual property products—Computer software	TOTAL stock of IT held by the information media and telecommunications industry		
			$ million			*per cent*
1975–76	0	556	6	562	3 156	17.81
1976–77	0	562	8	570	3 259	17.49
1977–78	0	563	10	573	3 370	17.00
1978–79	0	577	13	590	3 517	16.78
1979–80	1	585	15	601	3 642	16.50
1980–81	1	603	20	624	3 864	16.15
1981–82	1	631	27	659	4 150	15.88
1982–83	1	654	35	690	4 372	15.78
1983–84	2	721	46	769	4 903	15.68
1984–85	3	822	60	885	5 510	16.06
1985–86	4	1 002	79	1 085	6 237	17.40
1986–87	4	1 091	98	1 193	7 034	16.96
1987–88	5	1 187	137	1 329	7 825	16.98
1988–89	6	1 291	173	1 470	8 638	17.02
1989–90	7	1 464	235	1 706	9 591	17.79
1990–91	8	1 576	291	1 875	10 174	18.43
1991–92	9	1 695	374	2 078	10 849	19.15
1992–93	13	1 996	556	2 565	11 877	21.60
1993–94	13	2 107	729	2 849	12 759	22.33
1994–95	17	2 300	864	3 181	13 693	23.23
1995–96	23	2 525	997	3 545	14 749	24.04
1996–97	33	2 858	1 154	4 045	16 321	24.78
1997–98	37	2 975	1 267	4 279	18 494	23.14
1998–99	52	3 176	1 417	4 645	20 527	22.63
1999–00	85	3 743	1 611	5 439	23 716	22.93
2000–01	133	4 726	1 959	6 818	27 543	24.75
2001–02	155	5 327	2 222	7 704	30 900	24.93
2002–03	174	5 837	2 401	8 412	35 983	23.38
2003–04	164	6 068	2 519	8 751	42 038	20.82
2004–05	171	6 449	2 694	9 314	48 448	19.22
2005–06	202	6 825	2 879	9 906	54 939	18.03
2006–07	216	7 272	2 939	10 427	61 407	16.98
2007–08	279	7 709	2 855	10 843	68 063	15.93
2008–09	314	7 985	2 741	11 040	73 504	15.02
2009–10	353	7 868	2 812	11 033	77 554	14.23
2010–11	431	7 848	3 247	11 526	82 393	13.99
2011–12	473	7 824	3 681	11 978	87 917	13.62
2012–13	474	7 607	4 000	12 081	93 149	12.97
2013–14	456	7 461	4 403	12 320	96 373	12.78
2014–15	413	7 501	4 607	12 521	100 309	12.48
2015–16	457	7 844	4 995	13 296	103 608	12.83
2016–17	499	8 133	5 667	14 299	107 888	13.25
2017–18	456	8 123	6 788	15 367	114 324	13.44
2018–19	469	8 463	7 781	16 713	121 715	13.73

See end notes.

[g] Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2.

Source: ABS (2019d).

CHAPTER 3
Subscriptions and prices

Table C 3.1a Number of services, by communications medium

End of financial year	Number of payphones	Terrestrial mobile (voice and data)	Fixed line	Mobile handset internet subscribers	Internet (excluding mobile handset subscribers)	
					Dial-up	Broadband
		Number of subscriptions (millions)				
2004-05 [i]	61 735	18.42	11.46	np	[h] 4.18	[h] 1.80
2005-06 [j]	58 230	19.76	11.26	np	2.78	3.16
2006-07	49 862	21.26	10.92	np	[h] 2.09	[h] 4.34
2007-08	45 114	22.12	11.00	np	1.57	5.66
ISPs with more than 1000 active subscribers						
2008-09 [k]	39 328	24.22	10.67	np	1.09	7.33
2009-10	35 012	25.99	10.59	np	0.78	8.72
2010-11	33 201	29.28	10.54	np	0.57	10.34
2011-12	31 032	30.20	10.44	16.19	0.44	11.60
2012-13	29 523	31.09	9.42	19.65	0.23	12.13
2013-14	28 068	31.01	9.19	20.57	0.18	12.30
2014-15	25 876	31.77	[l] 8.50	23.65	0.10	12.67
2015-16	24 573	32.59	[l] 8.48	24.82	0.09	13.21
2016-17	23 226	32.44	8.46	26.33	np	13.75
2017-18	22 716	33.54	8.09	26.98	np	14.72

[h] Internet subscriptions for the end of the March quarter.

[i] Internet subscriptions prior to 2005–06 reflect data from all ISPs.

[j] From 2005–06 to 2007–08 internet subscriptions reflect data from ISPs with more than 10 000 active subscribers.

[k] Internet subscriptions for 2008–13 reflect data from ISPs with more than 1000 active subscribers.

[l] Change in data source in 2016 to ACCC retail and resale data collected from the providers. 2015 data has been revised to be consistent with the 2016 data collection method and differs from data reported in the previous Communications report.

np: refers to non available data.

Source: ACMA (2019).

Table C 3.1b Number of internet subscriptions, by technology type

End of financial year	Fixed internet subscriptions								Mobile internet subscriptions			Total internet subscriptions
	ADSL	Cable	Dial-up	Satelite	Fixed wireless	Fibre	Other	Total fixed internet subscriptions	Mobile wireless (dongle, data card, USB modem service)	Mobile handset	Total mobile internet subscriptions	
	millions											
2014	5.07	0.95	0.18	0.08	0.05	0.20	0.002	6.53	5.95	20.57	26.52	33.05
2015	5.11	1.00	0.10	0.07	np	0.42	np	6.76	6.00	23.65	29.66	36.41
2016	5.03	1.03	0.09	0.06	0.08	0.96	0.001	7.26	6.04	24.82	30.86	38.12
2017	4.23	1.01	np	np	0.14	2.14	np	7.64	6.11	26.33	32.44	40.08
2018	3.23	0.94	np	np	0.22	3.64	0.001	8.16	6.56	26.98	33.54	41.70

np: Refers to non available data but included in totals where possible.
Source: ACMA (2019).

Table C 3.2 Number of internet subscriptions, by download speed—total all subscriptions (excluding mobile handset subscriptions)

	Less than 1.5Mbps	1.5Mbps to less than 8Mbps	8Mbps to less than 24Mbps	24Mbps or greater	Total broadband	Total all subscriptions
Census of all ISPs						
September 2001						4 289
September 2002						4 555
September 2003	5 043	np	np	np	656	5 211
September 2004	5 287	np	np	np	1 290	5 741
March 2005	5 380	np	np	np	1 787	5 980
September 2006	5 525	np	np	np	3 900	6 657
December 2007	4 589	1 045	1 293	180	5 218	7 105
December 2008	3 959	2 012	1 653	373	6 678	7 996
ISPs with more than 1000 active subscribers						
December 2009	3 286	3 188	1 973	503	8 046	8 951
December 2010	1 948	4 067	3 530	901	9 739	10 446
December 2011	1 283	5 115	3 985	1 213	11 121	11 596
December 2012	897	4 213	5 406	1 645	11 873	12 161
December 2013	542	4 159	5 608	2 088	12 187	12 397
December 2014	334	3 305	6 715	2 337	12 531	12 691
December 2015	193	2 183	np	np	12 871	12 946
December 2016	92	2 158	3 368	7 843	13 461	13 461
December 2017	np	np	3 598	8 939	14 209	14 209
December 2018	np	np	3 928	9 614	15 639	15 639

Note: Data are not readily available for missing years.
As at 31 December 2018, internet subscriptions via mobile handsets are excluded.
Total subscribers equal total broadeband subscribers as dial-up subscribers are not recorded.
Changing thresholds represent increasing download speed.
np: not available for publication but included in the totals.
Source: ABS (2019l).

Table C 3.3 Number of internet subscribers, by access connection (exlcuding mobile handset subscriptions)

	Dial-up	Non dial-up							
		DSL	Cable and fibre	Satellite	Wireless (excluding mobile handset connections)			Other	Combined connections	
					Fixed	Mobile	Total wireless (excluding mobile handset connections)			
	Number of subscriptions('000)									
Census of all ISPs										
September 2001	4 088		30	np	np				np	
September 2002	4 204		127	np	np				np	
September 2003	4 522		372	np	np	np	3	8	np	
September 2004	4 441		822	np	np	np	9	15	np	
March 2005	4 177		1 256	np	np	np	7	38	np	
September 2006	2 749		2 995	np	np	np	np	186	np	727
December 2007	1 887		3 815	np	np	np	np	481	np	922
December 2008	1 311		4 208	916	80	np	1 369	1 462	19	na
ISPs with more than 1000 active subscribers										
December 2009	891		4 178	np	107	22	2 838	2 860	np	na
December 2010	707		4 458	np	np	24	4 230	4 254	np	na
December 2011	473		4 553	937	100	35	5 491	5 526	8	na
December 2012	282		4 727	1 009	92	49	5 995	6 044	7	na
December 2013	205		4 898	1 111	91	48	6 040	6 088	3	na
December 2014	159		5 099	1 290	75	67	5 996	6 063	5	na
December 2015	93		5 030	1 649	np	84	6 025	6 109	np	na
December 2016	na		4 716	2 479	76	102	6 087	6 189	1	na
December 2017	na		3 706	3 897	120	199	6 286	6 485	0	na
December 2018	na		2 445	4 792	117	316	7 970	8 286	na	na

Note: Data in column Cable and fibre has been updated to include fibre. Data has been revised back to 2011.
Data are not readily available for missing years from 2016 'dial up' is no longer a valid access connection response.
np: not available for publication but included in the totals.
na: not applicable.
Source: ABS (2019l).

Table C 3.4 Communications providers—number of internet service providers (ISP), by size

	Very small	Small	Medium	Large	Very large	Total all subscribers
	1 to 100 subscribers	101 to 1,000 subscribers	1,001 to 10,000 subscribers	10,001 to 100,000 subscribers	100,000 + subscribers	
	Number of ISPs					
September 2000	132	377	173	28	8	718
September 2001	112	299	155	30	6	602
September 2002	102	254	172	29	6	563
September 2003	153	316	163	27	8	667
September 2004	171	323	157	26	10	687
March 2005	180	312	162	25	10	689
September 2006	124	199	112	22	10	467
December 2007	108	179	96	28	10	421
December 2008			88	27	11	126
December 2009			66	27	10	103
December 2010			71	21	12	104
December 2011			58	23	10	91
December 2012			46	22	8	76
December 2013			48	19	9	76
December 2014			41	21	9	71
December 2015			31	21	10	62
December 2016			34	19	10	63

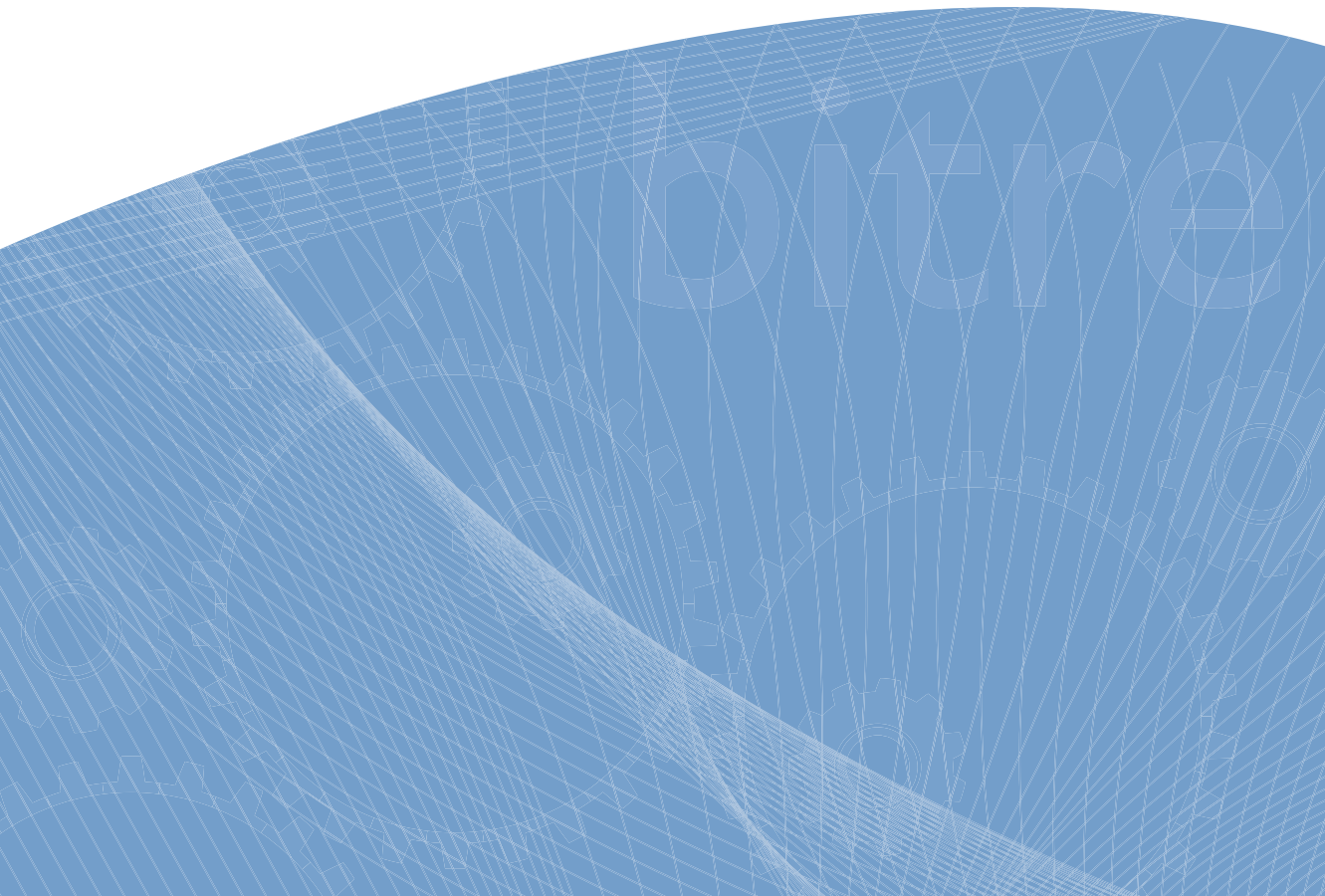
Note: Data are not readily available for missing years.
Source: ABS (2019l).

Table C 3.5 Communications prices—consumer price index, telecommunication services, index numbers by capital city

Average over financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Australia
	base of each index: 2011–12 = 100								
1981–82	62.7	64.2	60.5	63.4	62.2	63.6	70.6	64.1	63.1
1982–83	69.1	70.7	66.7	69.9	68.7	69.9	77.8	70.8	69.5
1983–84	74.9	76.6	71.9	75.7	74.4	75.5	84.6	76.8	75.3
1984–85	78.0	79.9	74.6	78.9	77.5	78.6	88.1	80.0	78.4
1985–86	81.8	83.5	78.0	82.4	81.4	82.2	91.1	83.6	82.0
1986–87	84.0	85.0	81.0	83.9	84.2	84.3	93.7	85.6	84.1
1987–88	90.9	91.9	88.1	90.6	91.1	91.1	101.1	92.7	91.0
1988–89	92.5	93.3	89.1	91.9	93.1	92.0	101.3	94.1	92.4
1989–90	90.9	91.2	87.4	89.9	91.9	89.5	98.1	92.2	90.7
1990–91	93.3	93.6	89.2	92.1	94.2	91.4	100.1	94.7	93.0
1991–92	97.5	97.9	92.9	96.3	98.5	95.0	104.1	99.1	97.1
1992–93	96.9	97.4	92.1	95.8	98.1	93.7	103.3	98.6	96.5
1993–94	96.1	96.6	91.5	95.1	97.5	92.7	102.3	97.7	95.8
1994–95	97.5	97.7	93.7	96.3	98.9	94.5	104.3	99.1	97.1
1995–96	97.1	97.2	93.8	95.9	98.8	94.3	104.2	98.7	96.8
1996–97	96.4	96.4	93.1	94.3	98.1	93.2	103.4	97.8	96.0
1997–98	96.5	96.4	93.4	93.9	97.9	93.3	102.7	97.7	96.0
1998–99	92.6	92.9	90.8	90.4	93.3	90.7	95.1	93.5	92.3
1999–00	87.5	87.5	86.5	85.8	86.8	86.6	87.6	87.9	87.1
2000–01	93.7	93.9	92.9	92.1	92.5	93.1	93.4	94.2	93.4
2001–02	93.8	94.4	93.4	93.1	93.2	93.3	93.6	94.0	93.8
2002–03	96.6	97.2	96.3	96.5	96.2	96.3	96.2	96.8	96.7
2003–04	97.8	98.3	97.5	97.7	97.4	97.5	97.4	98.0	97.8
2004–05	98.7	99.2	98.5	98.7	98.3	98.4	98.2	98.8	98.8
2005–06	97.1	97.7	96.9	97.2	96.7	96.9	96.7	97.3	97.2
2006–07	98.3	98.7	98.2	98.3	98.0	98.0	97.9	98.4	98.3
2007–08	98.6	98.9	98.5	98.6	98.2	98.3	98.1	98.7	98.6
2008–09	99.1	99.4	99.1	99.2	98.8	98.9	98.7	99.2	99.2
2009–10	99.4	99.7	99.4	99.4	99.1	99.3	99.1	99.5	99.4
2010–11	99.0	99.1	99.0	99.0	98.9	99.0	99.0	99.0	99.0
2011–12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2012–13	101.6	101.7	101.7	101.7	101.5	101.6	101.6	101.6	101.6
2013–14	102.7	102.8	102.9	102.8	102.5	102.8	102.6	102.7	102.7
2014–15	99.2	99.3	99.4	99.2	98.9	99.2	99.1	99.2	99.2
2015–16	93.0	93.1	93.2	93.1	92.8	93.0	92.9	92.9	93.0
2016–17	87.5	87.6	87.7	87.6	87.3	87.6	87.4	87.5	87.5
2017–18	84.1	84.2	84.3	84.2	84.0	83.7	83.6	84.0	84.1
2018–19	80.1	81.9	80.3	80.2	80.0	79.5	79.4	80.0	80.1

Source: ABS (2019f).

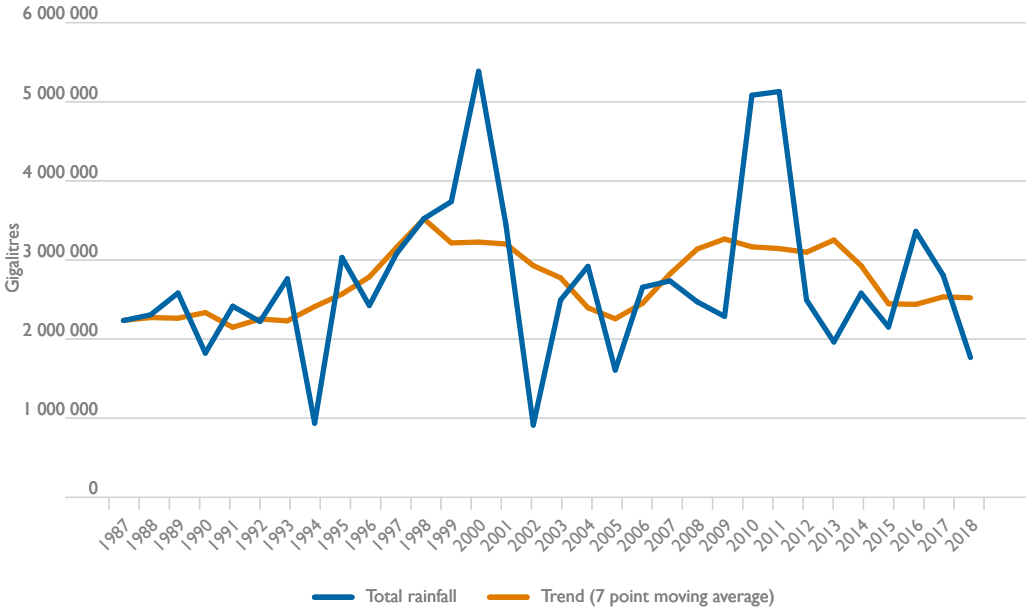
PART W: Water



PART W
Water

Australian water utilities use infrastructure networks to provide water to urban and rural areas and to provide wastewater collection and treatment services to large areas of the country. Part W: Water provides statistics on both physical and financial measures of water infrastructure, water supply and wastewater treatment activity, and measures of water health and emissions issues.

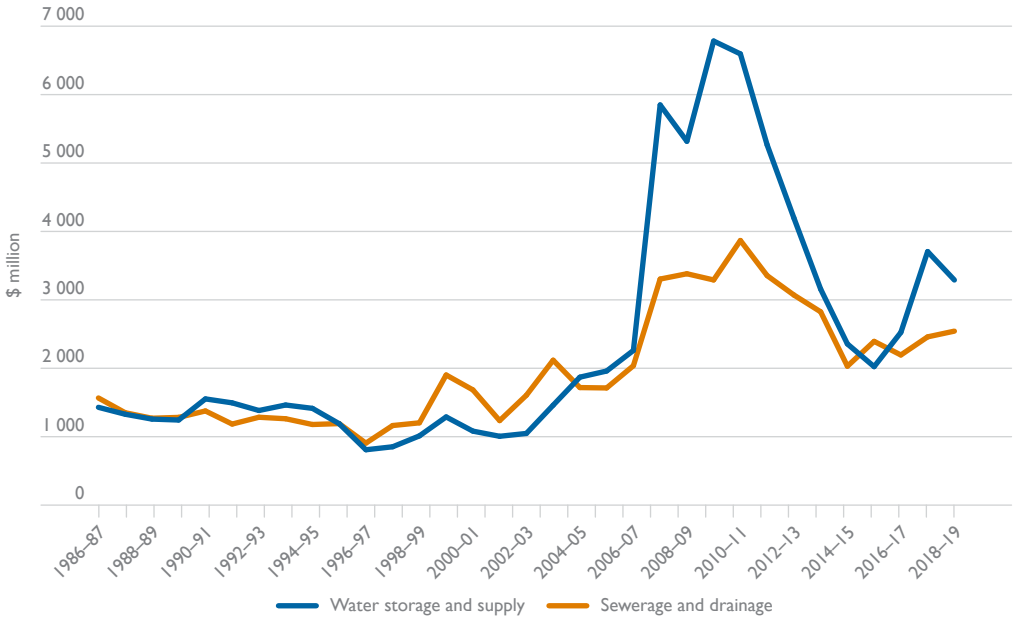
Figure W 1 Total volume of rainfall in Australia



Source: BoM (2019b).

Total rainfall is subject to significant annual variations. Rainfall was considerably higher than average in 2010 and 2011 – the years in which parts of Queensland, Victoria and New South Wales were flooded. In the following four years rainfall decreased sharply to finish just below trend.

Figure W 2 Water infrastructure engineering construction, adjusted by chain volume index



Source: ABS (2019h).

Infrastructure construction activity was relatively constant (in chain volume adjusted terms) until about 2002–03. Water infrastructure construction expenditure increased sharply from 2003–04 in real terms. This increase was due to water storage and supply projects, which reflect construction work on the South–East Queensland water grid and the construction of desalination plants in Western Australia, New South Wales, Queensland and Victoria. Expenditure declined from 2011–12 to 2013–14 with the completion of these projects, returning to trend.

CHAPTER 1
Water infrastructure

Table W 1.1a Flow of new infrastructure—value of water infrastructure engineering construction work done by the private sector for the private sector, adjusted by chain volume index, 2016–17 prices

Financial year	Water storage and supply	Sewerage and drainage	Water infrastructure engineering construction work done	Water percentage of total major infrastructure engineering construction work done
		$ million		*per cent*
1987–88	135.2	138.5	273.6	10.19
1988–89	145.2	142.8	288.0	9.79
1989–90	161.4	119.0	280.4	8.75
1990–91	206.5	193.1	399.6	13.22
1991–92	119.9	113.5	233.3	8.11
1992–93	163.7	148.5	312.1	10.29
1993–94	287.3	217.7	505.0	13.43
1994–95	521.3	141.8	663.1	17.70
1995–96	484.2	282.1	766.3	15.83
1996–97	228.7	142.5	371.2	7.34
1997–98	259.3	190.6	449.9	6.98
1998–99	262.9	144.4	407.3	5.44
1999–00	307.3	267.6	574.9	7.16
2000–01	319.1	331.0	650.1	9.02
2001–02	241.1	265.4	506.6	6.66
2002–03	271.2	464.9	736.1	7.13
2003–04	471.8	773.4	1 245.2	8.64
2004–05	540.6	451.7	992.4	6.00
2005–06	649.9	462.7	1 112.6	6.50
2006–07	634.3	484.2	1 118.5	5.38
2007–08	932.7	1 111.8	2 044.5	9.04
2008–09	690.5	1 181.7	1 872.2	7.98
2009–10	1 999.5	595.6	2 595.1	11.93
2010–11	3 303.5	731.0	4 034.4	15.33
2011–12	2 229.4	744.3	2 973.8	9.28
2012–13	1 520.4	683.3	2 203.8	5.99
2013–14	1 232.6	619.3	1 852.0	5.60
2014–15	937.1	426.4	1 363.5	5.16
2015–16	595.5	565.4	1 161.0	5.91
2016–17	670.7	501.9	1 172.6	5.96
2017–18	1 230.6	638.5	1 869.1	7.21
2018–19	957.0	583.2	1 540.3	5.97

Source: ABS (2019h).

Table W 1.1b Flow of new infrastructure—value of water infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index, 2016–17 prices

Financial year	Water storage and supply	Sewerage and drainage	Water infrastructure engineering construction work done	Water percentage of total major infrastructure engineering construction work done
	$ million			*per cent*
1987–88	416.8	427.4	844.2	20.58
1988–89	323.1	358.9	681.9	18.57
1989–90	281.2	418.2	699.4	17.77
1990–91	419.9	465.6	885.5	18.34
1991–92	574.6	338.8	913.5	18.53
1992–93	463.9	435.6	899.4	16.88
1993–94	661.8	495.6	1 157.4	18.53
1994–95	420.6	458.6	879.2	16.08
1995–96	327.2	475.4	802.6	15.02
1996–97	322.9	401.9	724.7	12.19
1997–98	279.6	494.9	774.4	11.77
1998–99	328.5	567.1	895.6	12.72
1999–00	412.2	1 119.6	1 531.7	20.50
2000–01	337.8	942.4	1 280.1	18.42
2001–02	361.5	581.8	943.3	15.40
2002–03	301.8	701.8	1 003.6	15.92
2003–04	559.1	901.6	1 460.7	23.39
2004–05	862.8	778.4	1 641.1	19.72
2005–06	854.7	592.3	1 447.0	16.12
2006–07	923.3	685.7	1 609.0	17.45
2007–08	3 733.3	1 262.3	4 995.7	38.06
2008–09	3 534.9	1 268.7	4 803.6	30.82
2009–10	3 173.0	1 580.8	4 753.8	29.57
2010–11	1 716.6	1 761.9	3 478.5	20.56
2011–12	1 493.5	1 332.5	2 826.0	15.98
2012–13	1 217.8	950.8	2 168.6	12.24
2013–14	733.4	1 021.5	1 754.9	10.66
2014–15	597.4	625.0	1 222.5	8.40
2015–16	582.7	500.3	1 083.0	6.61
2016–17	726.1	460.5	1 186.6	5.92
2017–18	1 145.0	435.5	1 580.5	6.34
2018–19	900.9	440.7	1 341.5	6.17

Source: ABS (2019h).

Table W 1.1c Flow of new infrastructure—value of water infrastructure engineering construction work done by the public sector, adjusted by chain volume index, 2016–17 prices

Financial year	Water storage and supply	Sewerage and drainage	Water infrastructure engineering construction work done	Water percentage of total major infrastructure engineering construction work done
	$ million			*per cent*
1987–88	796.8	805.5	1 602.4	15.18
1988–89	806.4	785.9	1 592.4	14.92
1989–90	817.2	762.6	1 579.8	12.94
1990–91	945.1	733.4	1 678.5	13.90
1991–92	818.6	746.5	1 565.1	15.24
1992–93	771.3	715.3	1 486.6	13.44
1993–94	527.6	561.7	1 089.3	10.27
1994–95	477.9	592.0	1 069.8	8.96
1995–96	382.0	444.4	826.4	6.75
1996–97	263.8	373.6	637.4	5.56
1997–98	319.3	492.8	812.1	7.11
1998–99	428.0	507.3	935.4	7.66
1999–00	576.1	533.4	1 109.5	8.27
2000–01	429.6	427.8	857.4	7.02
2001–02	409.8	398.6	808.3	6.66
2002–03	478.5	451.2	929.7	7.76
2003–04	437.7	457.7	895.4	7.67
2004–05	476.1	495.8	971.9	7.99
2005–06	467.8	664.7	1 132.5	7.60
2006–07	700.7	867.6	1 568.3	11.35
2007–08	1 163.4	922.6	2 085.9	15.73
2008–09	1 043.9	912.8	1 956.7	13.26
2009–10	1 586.5	1 102.7	2 689.2	16.41
2010–11	1 570.8	1 376.5	2 947.2	18.35
2011–12	1 568.0	1 306.8	2 874.8	18.09
2012–13	1 482.3	1 461.4	2 943.7	20.03
2013–14	1 199.0	1 197.8	2 396.8	20.73
2014–15	833.5	996.4	1 829.9	17.68
2015–16	851.0	1 335.0	2 186.0	21.51
2016–17	1 125.9	1 230.2	2 356.1	24.50
2017–18	1 306.5	1 363.9	2 670.4	27.70
2018–19	1 401.1	1 489.8	2 890.9	29.49

Source: ABS (2019h).

Table W 1.1d Flow of new infrastructure—total value of water infrastructure engineering construction work done, adjusted by chain volume index, 2016–17 prices

Financial year	Water storage and supply	Sewerage and drainage	Water infrastructure engineering construction work done	Water percentage of total major infrastructure engineering construction work done
	$ million			*per cent*
1987–88	1 348.8	1 371.4	2 720.2	15.69
1988–89	1 274.7	1 287.6	2 562.3	14.82
1989–90	1 259.8	1 299.8	2 559.6	13.23
1990–91	1 571.5	1 392.1	2 963.6	14.87
1991–92	1 513.1	1 198.8	2 711.9	15.00
1992–93	1 398.9	1 299.3	2 698.2	13.89
1993–94	1 476.7	1 275.0	2 751.7	13.35
1994–95	1 419.8	1 192.3	2 612.1	12.35
1995–96	1 193.4	1 201.9	2 395.2	10.68
1996–97	815.3	918.0	1 733.3	7.71
1997–98	858.2	1 178.2	2 036.4	8.33
1998–99	1 019.4	1 218.9	2 238.2	8.37
1999–00	1 295.6	1 920.6	3 216.2	11.12
2000–01	1 086.5	1 701.1	2 787.6	10.57
2001–02	1 012.4	1 245.8	2 258.3	8.73
2002–03	1 051.5	1 618.0	2 669.5	9.33
2003–04	1 468.6	2 132.8	3 601.3	11.14
2004–05	1 879.4	1 725.9	3 605.4	9.74
2005–06	1 972.4	1 719.6	3 692.1	9.01
2006–07	2 258.3	2 037.6	4 295.8	9.81
2007–08	5 829.4	3 296.7	9 126.1	18.62
2008–09	5 269.3	3 363.2	8 632.5	16.04
2009–10	6 759.0	3 279.1	10 038.1	18.51
2010–11	6 590.9	3 869.3	10 460.2	17.64
2011–12	5 290.9	3 383.6	8 674.6	13.22
2012–13	4 220.5	3 095.6	7 316.1	10.58
2013–14	3 165.1	2 838.7	6 003.7	9.83
2014–15	2 368.0	2 047.8	4 415.9	8.60
2015–16	2 029.2	2 400.7	4 429.9	9.59
2016–17	2 522.7	2 192.6	4 715.3	9.55
2017–18	3 682.1	2 437.9	6 120.0	10.12
2018–19	3 259.0	2 513.7	5 772.7	10.07

Source: ABS (2019h).

Table W 1.2 Infrastructure capacity—major Australian water storage dams

End of financial year	Storage capacity (accessible capacity)	Water held in dams at end of year (accessible volume)	Percentage of capacity used
	gigalitres		*per cent*
1974–75	66 211		
1975–76	68 491		
1976–77	68 700		
1977–78	68 738		
1978–79	72 816		
1979–80	72 966		
1980–81	73 900		
1981–82	74 365		
1982–83	76 153		
1983–84	77 061		
1984–85	78 293		
1985–86	78 615		
1986–87	80 997		
1987–88	81 138		
1988–89	81 210		
1989–90	82 860		
1990–91	82 876		
1991–92	82 972		
1992–93	83 016		
1993–94	83 109		
1994–95	83 111		
1995–96	83 112		
1996–97	83 292		
1997–98	83 296		
1998–99	83 297		
1999–00	83 312		
2000–01	83 312		
2001–02	83 853	48 684	58.1
2002–03	83 853	39 575	47.2
2003–04	83 853	44 164	52.7
2004–05	83 853	39 958	47.7
2005–06			
2006–07			
2007–08			
2008–09		37 144	
2009–10		47 529	
2010–11	79 383	61 154	77.0
2011–12	79 532	66 945	84.2
2012–13	80 406	55 194	68.6
2013–14	80 958	51 364	63.4
2014–15	80 962	47 688	58.9
2015–16	80 962	43 078	53.2
2016–17	80 860	54 053	66.8
2017–18	80 824	47 869	59.2
2018–19	80 824	37 966	47.0

See end notes.
Note: Data are not readily available for missing years.
Source: BoM (2019b).

Table W 1.3 Infrastructure capacity—water storage in major dams—accessible volume of major water storage dams, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
				gigalitres				
2002–03	8 629	2 815	5 602	105	10 236	11 886	241	61
2003–04	7 970	4 371	6 287	111	11 352	13 744	251	78
2004–05	8 200	4 729	5 309	116	10 135	11 191	196	82
2005–06								
2006–07								
2007–08								
2008–09	5 636	1 908	7 447	998	10 871	10 044	204	36
2009–10	7 258	3 432	9 372	1 393	8 813	16 990	215	56
2010–11	14 924	9 455	10 014	2 148	10 723	13 541	269	80
2011–12	17 911	10 243	10 121	2 001	10 727	15 594	262	86
2012–13	13 455	8 981	9 679	1 977	8 453	12 377	215	57
2013–14	10 461	9 185	8 624	2 101	10 863	9 772	265	93
2014–15	9 591	7 250	8 265	2 052	9 858	10 321	260	101
2015–16	9 994	5 297	7 634	2 068	7 877	9 866	239	109
2016–17	12 851	9 889	7 403	2 173	9 867	13 625	239	126
2017–18	8 646	7 968	7 673	2 061	8 493	12 652	278	107
2018–19	5 395	5 603	7 040	2 007	6 004	11 608	224	83

Note: 2018–19 data is for June 2019.
Source: BoM (2019b).

CHAPTER 2
Water inputs and prices

Table W 2.1 Inputs to water supply—total rainfall on Australian land, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	Australia
				gigalitres				
2004	400 733	132 356	1 079 924	212 432	1 173 862	83 860	868 839	3 946 008
2005	399 930	140 088	827 250	202 597	774 142	85 501	643 535	3 069 118
2006	280 272	83 462	1 050 503	150 473	1 226 989	59 988	926 852	3 769 092
2007	436 069	139 179	1 135 305	211 449	966 412	71 274	867 490	3 822 936
2008	420 007	114 618	1 159 534	184 895	974 002	67 717	724 482	3 646 019
2009	399 127	121 440	1 188 955	197 680	832 329	103 628	685 358	3 522 947
2010	654 504	196 487	1 960 824	360 938	855 098	95 077	1 269 530	5 392 109
2011	534 847	182 160	1 436 438	347 169	1 525 515	99 318	1 314 052	5 422 877
2012	456 145	143 045	1 166 457	171 126	938 584	90 289	696 151	3 661 403
2013	372 546	138 451	850 960	193 156	1 030 165	105 550	622 083	3 306 801
2014	375 276	125 056	985 777	204 171	1 026 876	79 756	931 978	3 719 094
2015	434 061	115 345	855 805	201 811	895 070	76 301	861 419	3 432 950
2016	530 743	179 177	1 109 986	367 350	1 075 475	124 456	858 127	4 241 536
2017	363 744	141 184	964 629	244 710	1 213 834	80 433	871 753	3 870 780
2018	266 620	111 843	912 744	168 470	950 474	95 036	679 421	3 175 268

See end notes.

Note: Data are not readily available for missing years.

Source: BOM (2019b), GA (2010).

Table W 2.2 Volume of water sourced in each urban centre

Financial year	Surface Water	Groundwater	Desalination	Recycled water	Total
			megalitres		
Adelaide					
2016–17	131 741	0	4 112	21 316	157 169
2017–18	143 284	0	4 268	26 564	174 116
Canberra					
2016–17	49 916	0	0	33 210	83 126
2017–18	52 157	0	0	30 296	82 453
Darwin					
2016–17	34 818	5 396	0	541	40 755
2017–18	38 292	4 449	0	451	43 192
Melbourne					
2016–17	428 407	0	46 209	32 442	507 058
2017–18	448 864	0	14 972	42 085	505 921
Perth					
2016–17	0	139 598	149 823	9 568	298 989
2017–18	1 135	131 948	148 905	12 100	378 584
South East Queensland					
2016–17	299 372	7 686	1 562	14 755	323 375
2017–18	325 370	13 368	2 803	13 056	354 597
Sydney					
2016–17	558 226	0	0	38 340	596 566
2017–18	601 069	0	0	42 833	643 902

Source: BoM (2019a).

Table W 2.3 Urban Water prices—consumer price index, water and sewerage services, index numbers by capital city

Average over financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Australia
				base of each index: 2011–12 = 100					
1999–00	49.9	38.9	40.2	47.2	58.8	53.3	49.0	39.5	45.1
2000–01	49.9	38.9	44.1	47.6	60.2	55.9	51.5	41.7	45.9
2001–02	50.8	40.9	46.0	49.6	62.1	57.6	52.8	43.3	47.5
2002–03	52.2	42.4	48.0	52.2	63.9	61.3	54.8	45.0	49.2
2003–04	54.0	44.6	50.0	56.2	66.3	64.1	55.5	48.1	51.5
2004–05	55.4	46.7	51.7	57.9	66.3	67.4	55.5	50.5	53.2
2005–06	59.6	49.1	54.6	59.9	67.8	73.5	55.5	54.7	56.1
2006–07	63.9	51.8	57.9	61.9	70.6	76.9	57.0	65.2	59.5
2007–08	66.8	54.5	64.2	64.1	75.6	81.3	59.6	71.3	63.0
2008–09	77.0	64.1	68.3	69.7	82.6	85.3	61.7	80.3	71.3
2009–10	88.9	75.4	78.4	76.9	87.6	91.9	74.6	85.7	81.4
2010–11	94.7	88.2	94.1	87.7	96.6	95.5	83.2	89.2	91.8
2011–12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2012–13	101.0	100.4	101.6	110.5	111.0	106.3	114.7	105.7	103.2
2013–14	103.8	124.7	109.1	111.6	119.1	111.6	130.4	101.4	113.6
2014–15	106.2	112.1	120.6	114.9	124.7	117.6	136.6	104.6	113.4
2015–16	107.4	115.8	123.9	116.8	129.2	122.3	140.6	104.7	116.1
2016–17	99.4	115.2	127.2	109.5	134.5	127.0	141.2	105.4	114.0
2017–18	101.4	117.4	131.6	112.4	145.1	131.9	141.9	114.1	117.6
2018–19	102.2	116.7	134.5	114.4	150.4	136.1	143.2	109.8	118.7

Source: ABS (2019f).

CHAPTER 3
Rural water use and value

Table W 3.1a Rural water use—water consumption by agricultural activity, by State or Territory—irrigation water

Financial year	NSW [e]	VIC	QLD	SA	WA	TAS	NT	Australia
				megalitres				
2005–06	4 534 108	2 448 485	2 325 003	897 197	306 284	203 931	22 356	10 737 364
2006–07	2 605 019	1 648 914	1 840 252	966 057	293 186	263 029	19 737	7 636 194
2007–08	1 677 083	1 332 045	1 842 729	880 268	284 878	252 113	15 683	6 284 799
2008–09	1 910 033	1 194 501	2 058 471	827 230	226 085	262 296	21 962	6 500 577
2009–10	2 002 797	1 504 742	1 823 870	711 992	252 058	281 953	18 629	6 596 040
2010–11	2 746 189	1 134 701	1 693 994	621 308	253 759	172 709	22 713	6 645 375
2011–12	3 527 444	1 646 243	1 884 062	655 898	246 369	192 035	22 271	8 174 320
2012–13	4 975 661	2 449 685	2 359 653	769 097	239 225	248 786	17 892	11 059 999
2013–14	4 295 313	2 519 880	2 702 867	704 621	259 404	231 290	17 509	10 730 882
2014–15	3 196 461	2 305 061	2 232 053	705 406	258 199	225 126	27 992	8 950 298
2015–16	2 610 952	1 946 125	1 882 355	777 769	287 506	308 689	16 879	8 381 399
2016–17	3 814 556	1 754 769	2 422 507	544 010	274 958	239 553	np	9 103 759
2017–18	3 949 460	2 154 636	2 454 762	605 808	234 173	278 275	np	9 626 013

np not avaliable for publication but included in totals
[e] Includes the Australian Capital Territory.
Source: ABS (2019w).

Table W 3.1b Rural water use—water consumption by agricultural activity,[a] by State or Territory—other water use

Financial year	NSW[e]	VIC	QLD	SA	WA	TAS	NT	Australia
				megalitres				
2005–06	262 364	192 653	255 633	78 378	121 241	25 789	15 369	951 428
2006–07	240 062	174 371	243 980	68 723	118 806	24 816	14 477	885 234
2007–08	178 691	138 822	196 442	53 685	85 026	18 795	32 994	704 455
2008–09	198 070	139 351	237 211	74 419	92 310	22 634	21 062	785 056
2009–10	202 053	139 366	213 380	60 291	88 207	23 413	36 006	762 716
2010–11	236 524	165 648	265 908	77 721	93 349	28 490	37 587	905 227
2011–12	223 787	166 683	224 189	65 628	90 221	25 922	35 823	832 253
2012–13	226 652	164 339	263 575	73 786	84 782	23 097	32 503	868 734
2013–14	211 085	157 755	254 978	58 611	84 481	24 391	39 670	830 971
2014–15	229 697	157 344	235 224	65 412	85 652	22 440	33 790	829 559
2015–16	194 741	148 844	212 614	80 988	85 110	23 456	30 140	775 892
2016–17	206 236	192 392	241 788	66 505	88 881	27 678	np	865 239
2017–18	176 571	165 453	228 554	53 955	76 285	21 174	np	865 239

np not avaliable for publication but included in totals
[e] Includes the Australian Capital Territory.
Source: ABS (2019w).

Table W 3.1c Rural water use—water consumption by agricultural activity,[a] by State or Territory—total

Financial year	NSW[e]	VIC	QLD	SA	WA	TAS	NT	Australia
				megalitres				
2005–06	4 796 472	2 641 138	2 580 636	975 575	427 525	229 720	37 725	11 688 792
2006–07	2 845 081	1 823 285	2 084 232	1 034 780	411 992	287 845	34 214	8 521 428
2007–08	1 855 774	1 470 867	2 039 171	933 953	369 904	270 908	48 677	6 989 254
2008–09	2 108 103	1 333 852	2 295 682	901 649	318 395	284 930	43 024	7 285 633
2009–10	2 204 850	1 644 108	2 037 251	772 283	340 265	305 366	54 635	7 358 756
2010–11	2 982 713	1 300 349	1 959 902	699 029	347 108	201 199	60 300	7 550 602
2011–12	3 751 231	1 812 926	2 108 251	721 526	336 590	217 957	58 094	9 006 573
2012–13	5 202 313	2 614 024	2 623 228	842 884	324 006	271 884	50 394	11 928 733
2013–14	4 506 398	2 677 634	2 957 845	763 232	343 885	255 680	57 178	11 561 853
2014–15	3 426 159	2 462 405	2 467 277	770 818	343 851	247 566	61 781	9 779 856
2015–16	2 805 693	2 094 969	2 094 969	858 757	372 616	332 145	47 019	9 157 291
2016–17	4 020 792	1 947 161	2 664 295	610 515	363 839	267 231	95 165	9 968 998
2017–18	4 126 031	2 320 089	2 683 316	659 763	310 458	299 448	92 147	10 491 253

[e] Includes the Australian Capital Territory.
Source: ABS (2019w).

Table W 3.2 Rural water use—area of irrigated crops and pastures, by agricultural activity—Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed [f]	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consump–tion or seed	Nurseries, cut flowers and cultivated turf	Grapevines
	'000 hectares								
2005–06	1445.0	102.0	270.0	210.0	55.0	139.0	114.0	15.0	183.0
2006–07	1077.0	20.0	134.0	202.0	37.0	141.0	105.0	15.0	178.0
2007–08	1095.1	2.1	58.0	187.2	57.7	130.7	113.8	14.2	167.5
2008–09	932.3	7.2	141.9	191.9	51.8	128.0	104.6	12.9	172.3
2009–10	952.0	18.9	153.2	212.6	59.1	134.2	104.3	13.1	162.6
2010–11	np	75.8	359.3	129.5	61.5	139.0	112.7	12.8	151.9
2011–12	997.1	103.1	397.2	166.1	48.8	134.5	105.2	11.9	137.9
2012–13	1203.6	113.6	437.8	170.2	87.9	135.3	102.9	11.0	137.5
2013–14	1264.8	74.5	337.4	211.0	68.4	136.4	94.6	9.8	129.9
2014–15	1258.6	69.7	162.8	211.2	60.0	124.9	92.2	10.2	130.5
2015–16	1169.0	26.2	211.3	230.0	95.8	148.7	107.6	13.0	123.5
2016–17	1106.1	82.2	328.0	212.3	123.1	141.6	98.1	12.4	123.0
2017–18	1152.1	61.2	359.4	212.0	97.9	155.8	99.3	14.2	124.1

np: not available

[f] Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

Source: ABS (2019v).

Table W 3.3 Rural water use—volume of irrigation water applied, by agricultural activity—Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed [f]	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consump-tion or seed	Nurseries, cut flowers and cultivated turf	Grapevines
	megalitres								
2005–06	4 720 613	1 253 227	1 734 951	1 056 598	166 673	629 639	431 417	81 666	633 183
2006–07	3 627 630	239 432	867 662	977 611	108 939	648 443	413 889	72 099	638 590
2007–08	3 260 070	26 664	309 442	863 198	185 394	559 924	430 649	62 257	516 790
2008–09	2 915 937	101 474	880 003	761 086	144 683	597 535	433 093	65 425	543 252
2009–10	2 840 592	246 909	851 950	756 317	139 292	654 663	419 229	63 483	515 484
2010–11	np	286 156	1 882 243	459 405	138 052	550 422	372 472	54 337	355 719
2011–12	2 516 018	1 138 287	2 068 908	668 252	109 192	666 627	376 165	50 093	415 622
2012–13	3 083 503	1 434 209	2 850 803	715 741	247 953	760 826	392 411	54 546	529 912
2013–14	3 837 059	916 559	2 773 395	1 052 096	165 947	922 225	383 373	44 752	484 276
2014–15	3 833 380	878 347	1 212 693	1 121 460	176 591	715 372	371 835	49 236	505 106
2015–16	3 064 686	317 327	1 432 093	1 295 871	219 600	966 624	428 918	60 190	503 859
2016–17	2 682 803	940 205	2 566 428	973 912	166 854	835 791	385 952	60 545	436 302
2017–18	3 115 103	732 501	2 753 377	1 008 789	183 801	939 020	398 846	58 588	474 099

[f] Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

np: Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2019w).

Table W 3.4 Rural water use—application rate for irrigation water, by agricultural activity—Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consump-tion or seed	Nurseries, cut flowers and cultivated turf	Grapevines
	megalitres per hectare								
2004–05	3.3	12.1	6.7	5.5	2.8	5.0	3.8	4.7	4.0
2005–06	3.3	12.3	6.4	5.0	3.0	4.5	3.8	5.4	3.5
2006–07	3.4	12.2	6.5	4.9	2.9	4.6	3.9	5.0	3.6
2007–08	3.0	12.9	5.3	4.6	3.2	4.3	3.8	4.4	3.1
2008–09	3.1	14.1	6.2	4.0	2.8	4.7	4.1	5.1	3.2
2009–10	0.0	13.0	5.6	3.6	2.4	4.9	4.0	4.8	3.2
2010–11	np	10.1	5.2	3.5	2.2	4.0	3.3	4.2	2.3
2011–12	2.6	11.0	5.2	4.0	2.2	5.0	3.6	4.2	3.0
2012–13	3.4	12.6	7.8	4.2	2.8	5.6	3.8	4.9	3.9
2013–14	[h] 2.4	12.3	8.2	5.0	2.4	6.8	4.1	4.6	3.7
2014–15	[h] 3.0	12.6	7.5	5.3	2.9	5.7	4.0	4.8	3.9
2015–16	[h] 2.7	12.1	6.8	5.6	2.3	6.5	4.0	4.6	4.1
2016–17	[h] 2.6	11.4	7.8	4.6	1.4	5.9	3.9	4.9	3.6

See end notes.

[h] Figure for pasture, cereal and other crops for grazing, hay, silage, grain or seed is an average of given ABS statistics.

Source: ABS (2019w).

Table W 3.5 Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Australia

Financial year	Dairy production	Livestock, pasture, grains and other	Rice	Cotton	Sugar	Fruit (and nuts from 2012–13)	Vegetables for human consumption	Nurseries, cut flowers and turf	Grapes
	$ million								
2004–05	1 802.5	1 596.2	100.6	908.1	459.9	1 948.8	1 741.3	651.0	1 361.9
2005–06	1 877.7	np	273.7	869.8	496.9	2 137.2	2 453.2	1 165.9	1 251.5
2006–07	1 697.1	np	55.0	485.8	583.1	2 913.2	2 677.9	1 187.4	1 040.5
2007–08	2 288.8	np	7.3	208.1	451.6	2 291.9	2 971.9	1 171.8	1 597.2
2008–09	2 273.8	1 289.3	34.5	620.3	537.1	2 389.6	2 624.9	982.8	1 200.4
2009–10	1 825.6	1 420.4	89.9	664.3	750.4	2 242.3	2 385.8	1 036.5	1 069.5
2010–11	2 143.3	1450.6	173.6	1 566.2	374.2	2 522.9	2 878.1	908.6	928.6
2011–12	2 055.4	1 368.2	248.1	2 155.3	645.9	2 428.6	2 630.5	893.7	971.5
2012–13	1 908.0	1 236.0	302.0	1 789.0	599.0	2 801.0	2 745.5	824.6	1 074.0
2013–14	2 743.0	1 903.0	276.0	1 944.0	640.0	2 717.0	2 525.0	731.0	909.0
2014–15	2 831.0	2 677.0	273.0	907.0	737.0	2 882.0	2 676.0	833.0	1 027.0
2015–16	2 092.0	1 839.0	115.0	1 165.0	774.0	3 799.0	2 802.0	1 063.0	1 259.0
2016–17	1 623.5	1 677.1	252.4	1 517.9	834.6	3 525.4	3 295.6	1 326.4	1 340.6

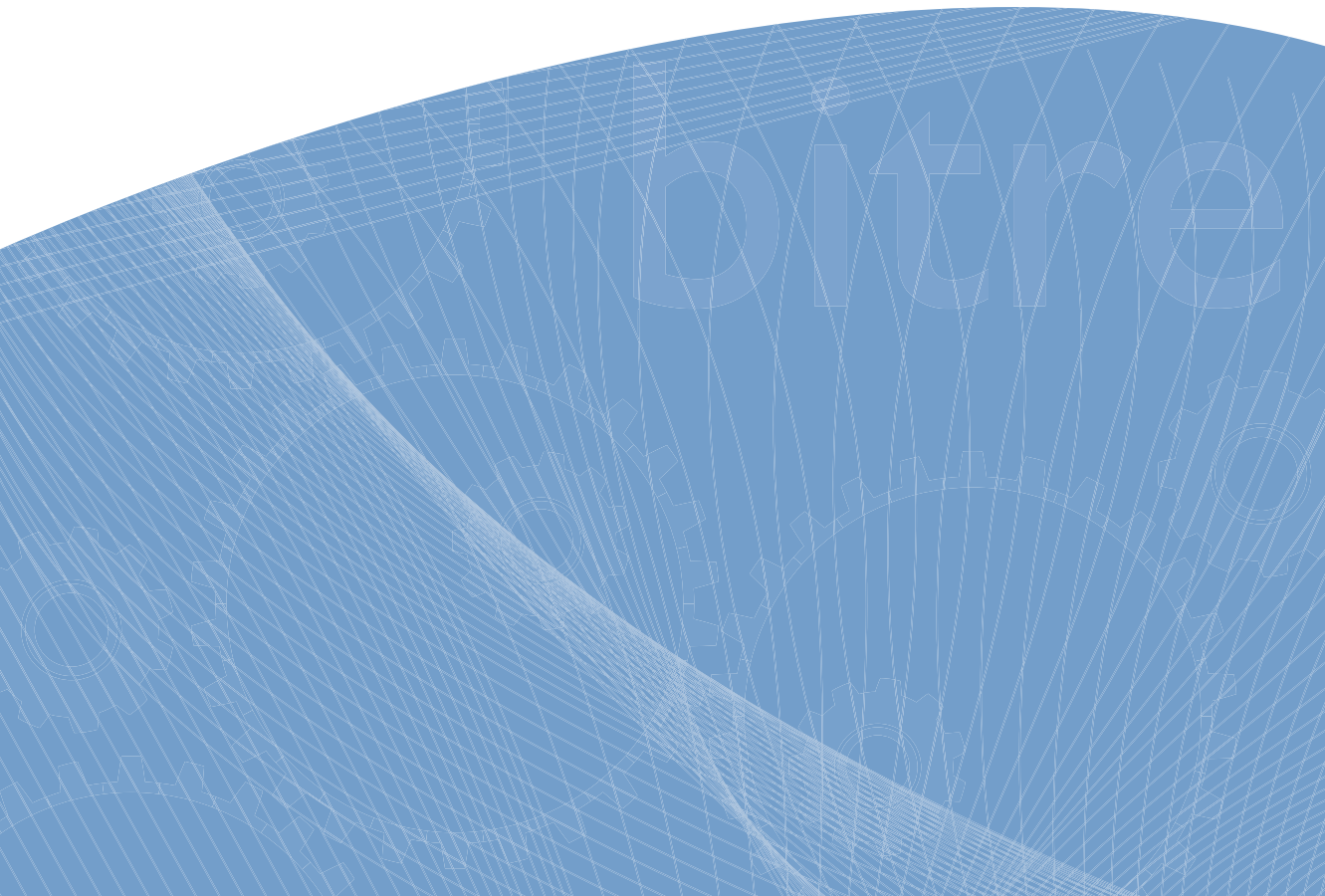
See end notes.

[f] Estimate has a relative standard error of 10% to less than 25% and should be used with caution

np: Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2019v).

End notes and definitions



End notes and definitions

Part 1 Infrastructure and the economy

The economy

Table 1 1.1

Gross value added is the value of output at basic prices minus the value of intermediate consumption at purchasers' prices. Gross value added is a measure of the contribution to gross domestic product by industry and by sector.

- Chain volume measures are an application of the Consumer Price Index based on a reference year. Changes to current price production measures may be due to either price or volume changes. Chain volume measures are provided to allow analysis of variations in production volumes; however, component chain volume measures do not sum to a total in the way original current price components do.
- Gross value added at basic values represents the amounts received by producers (including the value of any subsidies on products) but before any taxes on products. The difference between the sum over all industries of gross value added at basic prices and Gross Domestic Product at market (or purchasers') prices is the value of taxes less subsidies on products.
- In-house transport gross value added figures in Table 1 1.1b and 1 1.1c are converted to 2016–17 prices using a deflator calculated by dividing the gross value add in current prices for 'transport, postal and warehousing' by the equivalent chain volume measure.
- Water transport is included in the estimate under rail, pipeline and other transport industry.

Table 1 1.2

Table 1 1.2 provides estimates for total employment by major infrastructure industries in August each year, including both full–time and part–time employment. Total Transport and Storage employment includes some employees with no industry subdivision defined.

From 1986, the definition of employed persons changed to include persons who worked without pay between 1 and 14 hours per week in a family business or on a farm (i.e. contributing family workers).

Table 1 1.3

Average weekly earnings statistics provide an estimate of the average weekly income of wage and salary earners in key infrastructure industries. The estimates reflect the overall level of earnings of employees and the changes in the composition of the infrastructure industries' workforce (e.g. changes to the proportions of full-time, part-time and casual employees and changes to the proportions of occupations over time).

The Australian Bureau of Statistics (ABS) compiles average weekly earnings statistics on a quarterly basis in the Survey of Average Weekly Earnings and on a biennial basis in more detail in the Survey of Employee Earnings and Hours. The Australian Infrastructure Statistics Yearbook provides data sourced from the Survey of Employee Earnings and Hours as the Survey of Average Weekly Earnings does not provide adequate industry detail.

Estimates of average weekly earnings in Table I 1.3 exclude amounts salary sacrificed (the collection of salary sacrifice amounts are a relatively recent addition to the survey). Average weekly earnings represent gross earnings (before tax, superannuation and other items are deducted).

Caution should be exercised when comparing data across years. The Survey of Employee Earnings and Hours is not designed as a time series. In addition, the industry classification used in compiling average weekly earnings statistics changed in 2008. Earlier industry estimates were based on the 1993 version of ANZSIC, while the 2008 estimate was compiled based on an updated (2006) version of ANZSIC.

Estimates are compiled from a sample survey of employers and are subject to sampling variability. Table I 1.3 includes a number of estimates that are subject to high relative standard errors (greater than 25 per cent).

Table I 1.4

The indexes provided in Table I 1.4 relate to the prices received by businesses classified to major infrastructure industries. For the transport industry, indexes are only available for freight transport and storage services. Indexes for prices received by businesses providing passenger transport services are not currently available from the ABS.

Index numbers for financial years are simple averages of the four relevant quarterly index numbers.

Table I 1.5

Population estimates are classified by capital city and rest of state on the last day of the financial year (30 June). Population estimates are based on census counts for census years. ABS Regional Population Growth (ABS cat. no. 3218.0) explain that 'Population estimates for Australia and the states and territories are updated by adding, to the estimated population at the beginning of each period, the components of natural increase (births minus deaths, on a usual residence basis) and net overseas migration. A person is regarded as a usual resident if they have been (or expected to be) residing in Australia for a period of 12 months or more over a 16-month period'.

After each census, population estimates are revised to remove discrepancies between census outcomes.

In 2013, the ABS conducted a one-off exercise to revise (recast) population estimates for a longer time period back to 1991. Please note that:

- ACT includes Jervis Bay Territory up to June 1994.
- Data for 1991 to 1995 are based on 2001 Australian Standard Geographical Classification (ASGC) boundaries.
- Data for 1995–96 onwards are based on 2006 Australian Standard Geographical Classification boundaries.
- In June 2011, the ABS replaced the nation's official statistical geography, the ASGC with the new Australian Statistical Geography Standard (ASGS).
- Rest of state estimates are calculated by subtracting the capital city population from the corresponding state/territory total population.

Table 11.6

Table 11.6 provides a number of measures of economic activity that may influence Australian infrastructure activity. Goods exports and goods imports figures provide measures of the flow of physical goods into and out of Australia, over the full financial year. The Consumer Price Index provides a measure of annual changes in the price of consumer goods for the June quarter of each financial year, while exchange rate and interest rate data were measured in respect of the last day of the financial year (30 June).

- The exchange rate data provided represent the $US value of one Australian dollar.
- The interest rate provided is the 90 day bank accepted bill rate at the close of trading at the end of the financial year (30 June).

Infrastructure construction

Table 12.1

Table 12.1 provides estimates of engineering construction work done on major economic infrastructure by both private and public sector organisations. Estimates exclude the cost of land; the cost of repair and maintenance activity; the construction of buildings; the value of transfers of existing assets; the value of installed machinery and equipment not integral to the structure; and expenses for relocation of utility services.

Statistics are provided for the sector providing engineering construction services and the sector that is expected to own the project at the time of completion. Thus, statistics for work done by the private sector for the public sector summarise the work done by private sector engineering construction companies on projects that are owned by the public sector at the time of completion. When a project is undertaken as a Private Public Partnership (PPP) or similar arrangement, it is classified according to the expected ownership of the project at completion. PPPs may be classified as private sector even if ownership eventually resides with the public sector.

ABS provides both current price and chain volume measures for the value of engineering construction work done by the private sector for the private sector; by the private sector for

the public sector; and by the public sector. Figures presented in this table are in real terms, adjusted for price changes using a deflator calculated by dividing the current value of total engineering construction for each quarter by the equivalent chain volume measure, and then aggregating to financial year data.

Part T Transport

Transport infrastructure

Table T 1.1

Table T 1.1 provides estimates of engineering construction work done on transport infrastructure, providing transport detail to the data provided in Table I 2.1. Estimates for the construction of airport runways are included in the roads and bridges measure. Figures presented in this table are in real terms, adjusted for price changes using a deflator calculated by dividing the current value of total engineering construction for each quarter by the equivalent chain volume measure, and then aggregating to financial year data.

Table T 1.2

BITRE prepares estimates of road expenditure based on unpublished ABS Government Finance Statistics (GFS) data and internal Department of Infrastructure, Transport, Cities and Regional Development data. There have been a number of methodological changes in the compilation of estimates over time, with the most significant being the ABS adoption of accrual-based accounting for GFS in 1998–99.

Tables T 1.2a to T 1.2d aim to provide estimates of construction and maintenance expenditure by each jurisdiction on road infrastructure by:

- each level of government, net of identified road-specific contributions from other levels of Government;
- the non-public sector; and
- national aggregates for the Non-financial Public Sector which includes expenditure by Public Non-Financial Corporations (PNFC).

The total public sector includes government expenditure and PNFC. Total government includes expenditure by departments of the Commonwealth Government, State governments and Local Government. It also includes agencies and government authorities under the departmental administration that are engaged in the provision of public administration, law enforcement, welfare, public education and health. Also included are non-departmental bodies that independently perform the government functions of regulation (e.g. Nurses Registration Boards and the Australian Maritime Safety Authority), provision of non-market services (e.g. the Australian Broadcasting Corporation) and redistribution of income. Some of these bodies may be called 'corporations', but they are still considered part of the government sector if they perform general government functions. Public universities are also considered part of the government sector.

Enterprises in the PNFC sector differ from those in the government sector in that their production costs are more likely to be recovered from consumers, rather than being financed from the general taxation revenue of government. Some enterprises, however, do receive subsidies to make up for shortfalls incurred as a result of government policy, for example, in the provision of 'community service obligations' at concessional rates.

Road expenditure estimates presented here exclude payments from the Attorney General's Department through the Natural Disaster Relief and Recovery Arrangement (NDRRA), on advice from the Attorney General's Department that "the NDRRA does not fund road/bridge maintenance, rather it reimburses for replacement or restoration post a disaster".

Transfers of funding from Commonwealth to Local governments are netted out using data on Commonwealth road programs, and transfers of funding from State/Territory governments to Local government are netted out based on an estimate of such transfers from the GFS.

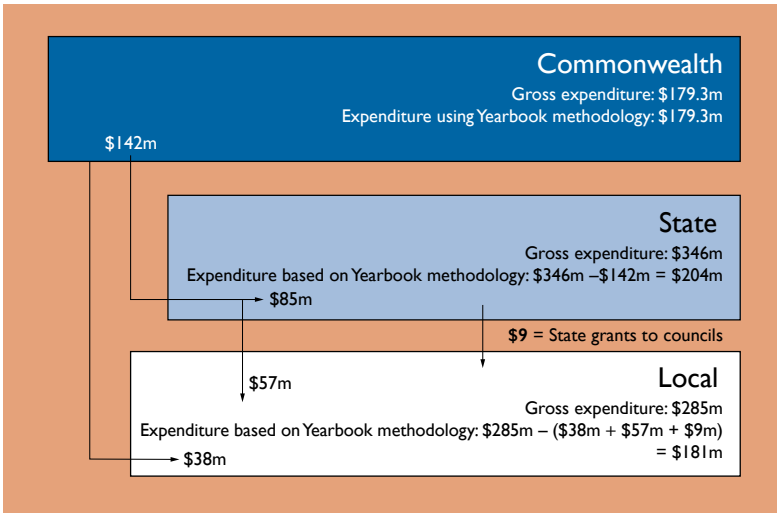
In 2017 there were two significant revisions to the methodology which impact the figures for Local Government and total road expenditure. The revisions have been applied to the full series back to 1998–99.

- In previous editions of the Yearbook, and in BITRE's separate publications on road-related expenditure, transfers from State/Territory governments were not netted out of Local Government expenditure (except for those for which funding originated from the Commonwealth). This resulted in double counting, as these grants were assigned to both to Local Governments and to states. Since the 2017 edition of Australian Infrastructure Statistics Yearbook, figures have been revised to adjust for state grants to local governments, also derived from the GFS.
- An additional change in methodology for the 2017 edition is in the treatment of Financial Assistance Grants to local governments. Previously, it had been assumed that these were captured in transfer payment codes in the GFS, and so were fully netted out of State and Local Government expenditure. Since the 2017 edition, for states where the total transfer payments in the GFS are less than the Financial Assistance Grants to that state (in a particular year), it has been assumed that none of the Financial Assistance Grants value was included in the GFS for that state, and the State and Local Government figures have both been revised upward by this amount (i.e., those grants are no longer netted off the State and Local Government figures).

From 2017 onwards the ABS have implemented a new GFS framework based on the Australian System of Government Finance Statistics: Concepts, Sources and Methods – 2015 (AGFS15) manual. Under this new framework, BITRE is now able to exclude bus-related expenditure, which previously was captured under 'Road transport n.e.c.'. This change was applied in the 2019 Yearbook back to 1998-99.

The schematic diagram below represents the flows of road funding expenditure diagrammatically, with figures for Tasmania in 2015-16. It highlights the flows of funds between different levels of government, and how these relates to the figures in our Yearbook.

Figure A 1 Schematic representation of flow of road expenditure funds for 2016–17 (Tasmania)



Source: BITRE estimates based on ABS data provided for the Yearbook in 2018.

Estimates are adjusted for inflation and are presented at constant 2016–17 prices calculated using the Consumer Price Index. Use of CPI is consistent with Treasury's approach in budget papers since 2008-09, as well as the Intergenerational Report. According to Treasury "the change from using the non-farm GDP deflator to the CPI provides a more accurate depiction of real government spending growth." This is due to volatility in the non-farm GDP deflator, driven by commodity price fluctuations (Treasury, 2008).

Table T 1.3

Table T 1.3 provides estimates of road expenditure adjusted by BITRE Road Construction and Maintenance Price Index (RCMPI). The RCMPI is an indicator of the change in input costs faced by the road construction and maintenance industry in Australia. The RCMPI is used here as a deflator to convert nominal (current prices) road expenditure into real (current prices) values (BITRE information sheet, no. 83). It shows road expenditure in real terms as experienced by suppliers of road construction and maintenance services in Australia.

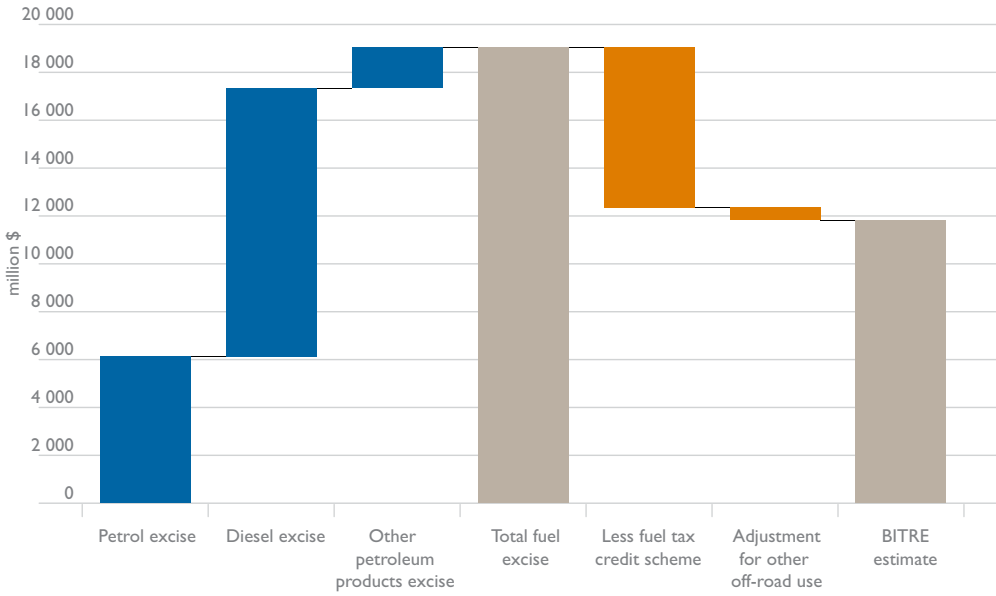
Table T 1.4

This table provides estimates of selected road-related taxes and charges in constant 2017–18 prices, adjusted by ABS Consumer Price Index (ABS 2019f). The following Commonwealth taxes and charges are included in the table:

- Net road-related petroleum products excise;
- Road-related Goods and Service Tax (GST);
- Road-related Fringe Benefits Tax (FBT);
- Luxury car tax
- Passenger motor vehicles customs duty.

Estimates of the road-related component of petroleum products excise are based on a combination of sources including Australian Taxation Office's (ATO) Taxation Statistics (ATO 2019b) and Commonwealth budget papers. The figures are net of rebates to industry through the Fuel Tax Credit Scheme and are modified using ABS survey of motor vehicle usage to net out excise on products for other off-road fuel use (including non-business use which is not eligible for rebates). Figure A.2 shows how the estimates of the road-related component relate to the total petrol and diesel excise revenue, as published by the ATO. Note that other components' excise, including on crude and condensate production, are not included.

Figure A 2 Composition of BITRE estimate of net road-related petroleum products excise, 2017–18



Source: ATO 2019b, BITRE estimates

Federal Interstate Registration Scheme revenue data is sourced from the Department of Infrastructure, Transport, Cities and Regional Development's internal records.

Total road-related GST figures are sourced directly from the ATO, and are calculated as the sum of net GST for the relevant Business Industry Codes. Items included are Motor vehicle retailing, Motor vehicle parts retailing, Fuel retailing, Road freight transport, Road passenger transport, Other transport support services, Motor vehicle and transport equipment rental and hiring, Automotive repair and maintenance and Car park operations. Net GST for Motor vehicle insurance, Toll road operation and Driver training are excluded. It is not possible to extract the GST from their Business Industry Codes which include other non road-related items.

The total road-related FBT estimates are based on available data in ATO's Taxation Statistics publication. It is calculated as the difference between FBT payable for motor vehicles and the associated FBT rebates.

Luxury car tax (LCT) is a tax imposed on luxury cars, which is a car with a GST-inclusive value above the LCT threshold. Luxury car tax is collected when a luxury car is sold or imported, and the data series is sourced from ATO's Taxation Statistics publication. Customs duty is

payable when passenger motor vehicles are imported into Australia, and this data series is sourced from Australian Government budgets and Treasury's internal records.

State and Territory Government road-related revenues include vehicle registration fees, driver license fees and stamp duty on vehicles. They are based on data supplied by relevant state and territory road agencies.

The time series on tolls is constructed from annual reports of various toll road operators such as Transurban. In 2019 Transurban stopped reporting 100 percent of revenue from toll roads as they own a percentage of some toll roads. Where a percentage of the revenue is reported the remaining amount to make a total of 100 per cent assumed and reported as toll revenue. Where possible, information on total toll revenue collected is used, exclusive of GST. However, in many cases it is not possible to conclusively determine whether the figures presented in different companies' annual reports are comparable or not. This is an inherent limitation of this data.

Table T 1.5

The National Transport Commission (NTC) obtains arterial road construction and maintenance expenditure estimates from states and territories for the most recent financial year. This data is used in the annual adjustment procedure for heavy vehicle charges. The figures presented in Table T 1.5 are the arterial road and bridge maintenance expenditure estimates provided by each state and territory, excluding Commonwealth-funded National Disaster Relief and Recovery Arrangements road expenditure and insurance-related expenditure as approved by transport ministers.

The definition of arterial roads used by the NTC differs from that used in Table T 1.6. The following table, provided by the NTC, lists the road classification types used in each state and territory for arterial roads:

Table A 1 Road classification types included in NTC definition of Arterial Roads.

NSW	State roads and regional roads.
Victoria	All State declared roads, i.e. Freeways, State Highways, Tourists' Roads, Forest Roads and Main Roads.
Queensland	National Network, State Strategic Roads, Regional Roads and some District Roads.
South Australia	NAASRA (Austroads) Classes 1 to 3 and 6 and 7 are considered arterials.
Western Australia	NAASRA (Austroads) Classes 1 to 3 and 6 and 7 are considered arterials.
	In applying the NAASRA classifications, a Key Town is defined as having a dominating influence over the surrounding region, with a population greater than 5 000 in agricultural areas or 3 000 in pastoral or arid areas.
	An Important Centre is defined as a town with a population greater than 500, or other significant traffic generator (e.g. mining development).
Tasmania	Category 1, Category 2 and Category 3 roads. (These are equivalent to NAASRA Functional Classes 1, 2 and 3 roads, but with definitions specific for Tasmania based on traffic levels and freight values).
Northern Territory	NAASRA (Austroads) Classes 1, 2, 3 and 7.
ACT	* Note currently the NT has no class 2 roads.
	NAASRA (Austroads) Functional Classes 1 to 3, 6 and 7 (including sub-arterial roads).

Source: NTC (2016).

Road and bridge maintenance expenditure is calculated as the sum of the relevant road expenditure categories:

Road and bridge maintenance expenditure =

B1 Routine maintenance +

B2 Periodic surface maintenance of sealed roads +

C Bridge maintenance & rehabilitation +

D Road rehabilitation

Estimates are adjusted for inflation and presented at constant 2016–17 prices calculated using the BITRE Road Construction and Maintenance Price Index—Road maintenance sub-index. The 2015–16 index value was based on final values for seven of the eight RCMPI inputs. The bituminous materials component was estimated based on changes to petroleum prices over the same period.

Table T 1.6

- Lengths are derived from the digital PSMA road layer centrelines and are estimates only. Changes to PSMA data from year to year, including but not limited to resolution and classification schema, may cause discontinuities in the series.
- State boundaries are derived from the 2011 Australian Statistical Geography Standard (ASGS) (ABS, 2010).
- Busway lengths are not available for 2010 and 2011 because PSMA did not classify 'Busway' as a road type until 2012. Small variations in busway lengths year on year may reflect re-classification of some segments such as interchanges.
- Reported road lengths represent approximate total route-kilometres. Dual carriageway section lengths are the approximate length of the centreline between each carriageway. PSMA data was used to determine dual carriageway lengths for New South Wales, Victoria, South Australia, Tasmania and the Australian Capital Territory. Due to limitations in the PSMA data, OpenStreetMap data was used to estimate dual carriageway lengths for Queensland and Western Australia. Dual carriageway estimates derived from OpenStreetMap data are typically larger than equivalent PSMA estimates, and may vary more from year to year. Estimation of dual carriageway length was not necessary for Northern Territory or Other Territories.
- Arterial and local roads are defined based on PSMA classifications, as based on the function roads play within the hierarchy of the road system. The definition of arterial roads differs from the definition used in Table T 1.5, and also will not in general be the same as in each State Government's classification. The definition of local roads differs from 'LGA-managed roads', the definition more commonly used by state and local road authorities, the Australian Local Government Association (ALGA) and previous BITRE publications.
- Roads designated as either 'access only', of undetermined type, for non-vehicular use, or which are not openly accessible to the public (limited-access) are excluded from the road length counts. These include fire trails, forestry roads, military roads, agricultural and mining access and haulage roads, private driveways, bike paths and walking trails. Busways are a special case: limited-access busways are included. Tollways are not considered to be limited-access roads.

- The proportion of limited-access roads is determined from PSMA data.
- The decline in total road length in 2012 and 2013 is driven by a reclassification of several Queensland local roads as 'Undetermined', excluding them from the count. This effect reduced Queensland's non-urban local road total by an estimated 1,100 kilometres in 2011 (relative to 2010), a further 1,900 kilometres in 2012, and another 3,500 kilometres in 2013. This trend has continued at a reduced rate in subsequent years, with an estimated 350 kilometres reclassified in 2014, and 400 kilometres in 2015, for a cumulative total of approximately 7,250 kilometres in the period 2010–2015. Western Australia sees a similar pattern in the latest two years, with an estimated 350 kilometres of local roads excluded in 2014 (relative to 2013) and an additional 400 kilometres in 2015..

Table T 1.6b

The local roads length is defined as roads controlled by local governments. The local councils report the road lengths to the Local Government Grants Commission in their state or the Northern Territory. The data is sourced internally from the Department of Infrastructure, Transport, Cities and Regional Development and was previously published in the Local Government National Reports.

Table T 1.7

Table T 1.7 includes a mix of indexes from ABS and BITRE sources.

The ABS Producer Price Indexes presented here are the price of road construction facing the project owners (primarily governments), i.e. the price that road construction companies sell their services. In contrast, the BITRE RCMPI is a weighted average of input costs facing construction companies.

ABS Producer Price Indexes for Australian road and bridge construction commence in September 1997 (base of index 2011–12 = 100), with state data only available from September 1998 for New South Wales, Victoria, Queensland, South Australia and Western Australia. The ABS does not publish road and bridge construction indexes for Tasmania, the Northern Territory or the Australian Capital Territory. The ABS Producer Price Index series is provided quarterly. Estimates provided in Table T 1.7 are a mean of the four relevant quarters. The 2018-19 BITRE index is preliminary, based on final values for seven of the eight RCMPI inputs. The June 2019 quarter bituminous materials component was estimated based on changes to petroleum prices over the same period.

Table T 1.8

From the 2014 issue of the Yearbook onwards, BITRE publishes estimates of expenditure on rail infrastructure based on unpublished ABS Government Finance Statistics (GFS) data and internal Department of Infrastructure, Transport, Cities and Regional Development data. Tables T 1.8a to T 1.8c provide estimates of construction and maintenance expenditure on railway infrastructure:

- by Commonwealth and State/Territory government net of rail-specific grants from other levels of government; and

- national aggregates for the Non-financial Public Sector which includes expenditure by Public Non-Financial Corporations (PNFC). An example of a PNFC included in the rail expenditure aggregate is the Australian Rail Track Corporation (ARTC). These corporations may fund expenditure from their own revenue sources, such as fares or access charges.

It should be noted that in state expenditure table T 1.8b the difference between the expenditure totals for Non-financial Public Sector and General Government (GG) will not equal the expenditure total for Public Non-Financial Corporations, due to the existence of payments between General Government and Public Non-Financial Corporations. The sum of Public Corporations and Total Government in Table T 1.8c will not add to Total Public Sector for the same reason. Table T 1.8b, which presents net state rail expenditure, contains some negative values. This is due to some mismatch between Commonwealth expenditure, and reported state expenditure from the ABS GFS. Issues include some state expenditure being reported under GPC code 128 (Other Transport) which includes GPC 1281 (Multi-model Urban Transport).

Estimates adjusted for inflation are calculated using the Consumer Price Index. Issues of BITRE's Australian Infrastructure Statistics Yearbook prior to 2016 used non-farm GDP deflator to adjust for price. This has been replaced with Consumer Price Index. This is consistent with Treasury's approach in budget papers since 2008-09, as well as the Intergenerational Report. According to Treasury "the change from using the non-farm GDP deflator to the CPI provides a more accurate depiction of real government spending growth." This is due to volatility in the non-farm GDP deflator, driven by commodity price fluctuations (Treasury, 2008).

Freight

Table T 2.1

Tonne kilometres (TKM) is a measure of freight task. It is measured as the number of tonnes moved by a vehicle multiplied by the distance the load travelled in kilometres. Individual trips are aggregated to provide estimates for total TKM by mode.

Road freight

The aggregate road freight estimates in this chapter are modelled by BITRE based on estimates from the Survey of Motor Vehicle Use (SMVU) by the Australian Bureau of Statistics.

The SMVU is not designed for time series usage, with the sample design and survey methodology changing several times since the survey commenced in 1963. In addition, the survey was only conducted annually between 1998 and 2007 (the survey was undertaken approximately triennially between 1971 and 1995, and biennially since 2007).

BITRE modelling modifies SMVU estimates to enable time series analysis by adjusting estimates to a common reference period, interpolating data for years when the survey was not conducted and imposing consistency requirements between SMVU and related data from other sources. An analysis of data discrepancies was undertaken in a joint ABS/BITRE project and published in an ABS research paper, Survey of Motor Vehicle Use—An investigation into coherence (ABS 2006). A detailed description of BITRE modelling techniques for freight data is provided in Freight Measurement and Modelling (BTRE 2006a).

Rail freight

From 2001 to 2003, the ABS published estimates of Australian rail freight in Freight Movements, Australia (ABS 2002) and Rail Freight Movements, Australia, Summary (ABS 2004). These data have been used in BITRE modelling to estimate the tonne kilometres moved by rail for 1970–71 through to 2001–02. Estimates of total tonnes moved by rail and tonne kilometres moved for 2002–03 to 2006–07 were based on the results of the 2007 Australian Rail Survey as published in the Australian Rail Industry Report 2007 (ARA 2008). The Australasian Railway Association Inc commissioned the Apelbaum Consulting Group to prepare the report. The Australian Rail Industry Report 2007 provides measures of bulk and non–bulk freight based on definitions that differ from BITRE models and, therefore, are only included in estimates of total rail freight in this publication. Estimates for state rail freight are derived from the Australian estimates using BITRE models (BTRE 2006a).

- From the 2007–08 financial year, BITRE expanded the scope of direct collection activities to include businesses for which rail transport was not their primary activity (eg: large mining companies). Previously this information had been estimated using data from other sources. Recent estimates should not be compared with earlier data.
- Estimates of tonne kilometres and tonnes moved by rail for 2010–11 and 2011–12 are based on the Australian Rail Industry Report 2012 (ARA 2013). Data from 2007–08 to 2009–10 are taken from TrainLine 1 (BITRE 2012). The calculation methodologies differ between publications. The values for 2014-15 and 2015-16 are as described in Trainline 6 (BITRE 2018b). They do not include traffic data for some of the smaller train operators.

Air freight

For some time, estimates have only been available in respect of Australia's international air freight tonnage (Table T 6.2). Air freight statistics (Table T 2.1 and Table T 6.3) are compiled from surveys undertaken by the Aviation Statistics Unit of BITRE.

Sea freight

Australia's international freight task relies heavily on shipping in terms of tonnage moved, with all of Australia's international trade in bulk commodities transported by sea. Specific bulk shipping statistics are not readily available. For some time BITRE estimated bulk sea freight under the assumption that all non–liner freight transport was for bulk commodities (non–liner cargo consisted of all dry and liquid bulk cargo, but also comprised cargo not shipped on regular liner services such as charters, dedicated car carriers and passenger ships). Liner/non-liner statistics are no longer available from ABS.

Tables T 2.1–T 2.5

Measures of domestic freight moved by mode are provided in terms of tonnes moved and tonne kilometres, where data are available. BITRE used the Survey of Motor Vehicle Use (SMVU) results to estimate road fright, however, BITRE values tend to differ somewhat from the underlying SMVU values due to the data adjustments/standards required. The values do not include 'tools of trade'. State and territory boundaries are based on the ABS, Greater Capital City Statistical Areas.

For road and rail, figures refer to freight activity undertaken within each state. For interstate trips, components of the journey will be counted in each state or territory passed through. In the case of sea freight, the figures refer to the state or territory in which the freight was loaded.

- The total road freight estimates in Tables T 2.2a and T 4.5 differ slightly because they were derived from independent methodologies. The main difference between the series is that the estimates in Table T 4.5 net out the transport of 'tools of trade'.

Passengers

Passenger kilometres (PKM) is a measure of total passenger travel. It is the number of kilometres travelled by a vehicle multiplied by the number of occupants in the vehicle. Individual trips are aggregated to provide estimates for total PKM.

Tables T 3.1–T 3.2

BITRE modelling uses data from a range of sources to provide a consistent time series of Australian passenger travel (PKM). Estimates of air passenger travel (Table T 3.1) differ from survey results for revenue passenger travel on domestic airlines (Table T 6.3) as Table T 3.1 also includes rough allowance for passenger travel by general aviation or charter aircraft. Vehicles not classified to passenger cars, buses, rail or air are included in 'other transport mode' (Table T 3.1).

- The other transport mode represents primarily non–freight use of light commercial vehicles (with contributions from motorcycles, non–business use of trucks and ferries).

For intercapital city passenger travel, estimates of the land based component include travel between origin and principle destination, while the aviation component includes all travel between city pairs.

Table T 3.3

These estimates draw on BITRE models developed for estimating congestion costs and public transport trends in Australian cities (BITRE 2015b, BITRE 2015c and BITRE 2015d). Estimates of passenger kilometres travelled in commercial vehicles primarily represent non–freight use of light commercial vehicles. Data for cars, light commercial vehicles and motorcycles were drawn from successive Surveys of Motor Vehicle Use, updated where possible using information on fuel sales, vehicle registrations, city traffic monitoring and household travel surveys. Data on rail, light rail and buses up to 2 000 were drawn from quarterly surveys of state authorities with updates relying on performance results reported in each of the transit operators' Annual Reports.

Bus values refer to all bus use, both by urban transit operators (route buses) and by private buses (such as charter/hire).

Table T 3.4

Method of travel to work statistics are compiled every five years as part of the Population Census conducted by the ABS. These statistics show the method used to travel to work on

the day of the Census by the entire Australian working population, attributed to the state or territory where each worker spent Census night.

- Public transport and other method refers to the total number of persons who used more than one method of travel for the day which included bus or trains.

Road

Vehicle kilometres travelled (VKT) is a measure of the total distance travelled by vehicles in a year.

Figure T 4

A map of the National road network is provided. The National road network follows Australia's national land transport plan, linking cities, regions and communities.

Table T 4.1

Intercapital road distances are calculated from capital city GPO to capital city GPO using the fastest route as provided by Google Maps.

Tables T 4.2–T 4.5

Estimates for motor vehicle usage are modelled by BITRE, primarily from data compiled by the SMVU (ABS 2015b). In addition to the SMVU, modelling of passenger transport also incorporates fuel use statistics from the monthly Australian Petroleum Statistics published by the Office of the Chief Economist (OCE). Freight Measurement and Modelling (BTRE 2006a) provides an outline of modelling techniques used for freight estimation, while Greenhouse Gas Emissions From Transport (BTRE 2002 and 2006b) provide an outline of modelling techniques used for passenger estimation.

The total road freight estimates in Tables T 2.2a and T 4.5 differ slightly because they were derived from independent methodologies. The main difference between the series is that the estimates in Table T 4.5 net out the transport of 'tools of trade'.

Table T 4.6

The Australian motor vehicle producer price index reflects movements in the prices received by manufacturers for new motor vehicles. The motor vehicle retail price index reflects the prices consumers pay for new and used motor vehicles and vehicle hire and lease expenses (non–holiday).

The other indexes in this table reflect changes in the prices consumers pay for a range of motor vehicle goods and services.

Tables T 4.7–T 4.8

The ABS Motor Vehicle Census (ABS 2018i) is a census of all vehicles registered for use on public roads, excluding vehicles registered as vintage or historical cars, military vehicles and consular vehicles (in New South Wales, vintage or historical cars cannot be separately identified and are included in census results). The census date is 31 March each year, although this has varied in previous years (care should be taken when comparing movements over years). From 1991 onwards, data are not strictly comparable with previous surveys due to revisions to Australian Design Rules, which had an impact on the way vehicles were classified in ABS statistics:

- The classification of rigid trucks is restricted to only vehicles with a gross weight of 3.5 tonnes or more. Vehicles that had previously been classified as rigid trucks with a gross weight of less than 3.5 tonnes are classified as light commercial vehicles under the new standards.
- The classification of buses is restricted to only vehicles with seating for 10 passengers (including driver) or more. Vehicles that had previously been classified as buses with seating for less than 10 passengers are classified as passenger vehicles under the new standards.

Data from the Motor Vehicle Census are not available with a state disaggregation prior to 1982.

Tables T 4.9–T 4.10

Data for new motor vehicle sales are sourced from the Federal Chamber of Automotive Industries and presented in Sales of New Motor Vehicles, Australia (ABS 2017d). The scope of these statistics is different to motor vehicle registrations data (Tables T 4.7–T 4.8) as it may include defence force vehicles, consular vehicles and vehicles that are intended for off–road use that are not registered for use on public roads. New motor vehicle sales statistics do not include sales of new motor cycles.

Tables T 4.11

Licence count data include driver licences with an active status. They do not include driver licences with the following status;

- Cancelled;
- Suspended;
- Surrendered;
- Expired; or
- Disqualified.

Provisional and learner driver permits are included in licence counts.

Licence count data also include other classes of active car licences, so are not directly comparable to data in Table 4.12. Total licence holder counts for Victoria, New South Wales, South Australia and the Australian Capital Territory include licences where gender is not specified or not recorded as male or female.

Tables T 4.12

Licence count data include driver licences with an active status. They do not include driver licences with the following status;

- Cancelled;
- Suspended;
- Surrendered;
- Expired;
- Disqualified; or
- Restricted.

Where someone holds a car licence and a heavy vehicle licence, this is counted twice. Any heavy vehicle category between the car category and highest heavy vehicle category held is not counted.

For example, for full heavy combination (HC) licence holders, the following counting rules apply:

- Full Car Licence – (counted);
- Light rigid (not counted);
- Medium Rigid (not counted);
- Heavy rigid (not counted); and
- Full Heavy Combination – (counted).

Where someone holds a full car licence and a full motorcycle licence, this is counted twice. Where a customer holds a car, motorcycle and truck licence, this is counted three times.

Provisional licence counts include all sub classes of provisional licence (e.g. P1 and P2 car licences)

Rail

Table T 5.1

Intercapital rail distances can vary significantly depending on whether the distances are measured between freight terminals or passenger terminals and on the route chosen. The freight and passenger terminals used in compiling Table T 5.1 are provided below:

Sydney:

- Chullora South Junction (for the Chullora freight terminal).
- Sydney Central Railway Station (for regional and interstate passengers).

Melbourne:

- Tottenham Junction (for Tottenham yard, Dynon terminals and the Port of Melbourne).
- Southern Cross Railway Station (Spencer Street) for regional and interstate passengers.

Brisbane:

- Acacia Ridge freight terminal.
- Roma Street Railway Station for regional and interstate passengers.

Adelaide:

- Islington Freight Terminal.
- Adelaide—Parklands Terminal (Keswick) for interstate passengers.

Perth:

- Forrestfield freight yards.
- East Perth for regional and interstate passengers.

Darwin:

- East Arm Wharf.
- Darwin Railway Station, Berrimah, for interstate passengers.

Canberra:

- Railway lands adjacent to railway corridor, Queanbeyan–Canberra (Fyshwick).
- Canberra Railway Station, Kingston.

Where more than one route exists between capital cities, the route chosen is the one that is typically used by the given train type. Some city pairs do not have point–to–point services so routes have been assumed. The following routes have been used:

Cootamundra/Parkes route for:

- Sydney–Adelaide/Perth/Darwin freight.
- Brisbane–Adelaide/Perth/Darwin freight.
- Canberra–Perth/Darwin freight.

Lithgow/Parkes route for:

- Sydney–Adelaide/Perth/Darwin passenger.

Melbourne route for:

- Canberra–Adelaide.

For the Brisbane–Melbourne passenger terminal calculations, the distance is calculated via North Strathfield and Granville, bypassing Sydney Central.

Table T 5.2

- "Open" means operational. . There are some lines that are non-operational but closed. Non-operational railways are excluded from the totals. Also excluded are Queensland narrow-gauge (610 mm) sugar tram lines — estimated to be around 4 000 route-kilometres..
- Railway route length refers to lines that are operational. There have been minor route length increases in Victoria and New South Wales due to the opening of the Regional Rail

Link in Victoria and Glenfield to Leppington line in New South Wales. The estimate of the Queensland total route length has been revised, and is based on data which Aurizon has provided.

Table T 5.3

- Sydney's metropolitan network is defined here as being bounded by Waterfall, Macarthur, Emu Plains, Richmond and Berowra.
- Melbourne's metropolitan network is defined here as being bounded by Stony Point, Sandringham, Williamstown, Werribee, Sunbury, Flemington Racecourse, Craigieburn, Upfield, South Morang, Hurstbridge, Lilydale, Belgrave, Alamein, Glen Waverley, Pakenham and Cranbourne.
- Brisbane's metropolitan network is defined here as being bounded by Caboolture, Shorncliffe, Domestic Airport, Doomben, Cleveland, Beenleigh, Rosewood, Springfield Central and Ferny Grove.
- Perth's metropolitan network is defined here as being bounded by Midland, Armadale, Thornlie, Mandurah, Fremantle and Clarkson.
- Adelaide's metropolitan network is defined here as being bounded by Belair, Tonsley, Seaford, Grange, Outer Harbor and Gawler Central.

Table T 5.5

In Table T 5.5a, figures up to 2000–01 are estimates of patronage within metropolitan areas. From 2001–02 on, figures refer to all trips on suburban rail networks, defined as in the notes to T 5.3 above. These figures are taken from BITRE (2017b), and are based on reporting from the train operators.

In Table T 5.5b, figures up to 2003–04 include the Sydney monorail.

Aviation

Table T 6.1

Intercapital air distances are provided in terms of greater circle distances. These are distances that take into account the curvature of the earth.

Tables T 6.2–T 6.3

- Revenue passengers are fare paying passengers uplifted from or discharged in Australia.
- Number of international revenue passengers uplifted from or discharged in Australia as well as passengers carried via Australia by Australian Airlines, Qantas Airways, Emirates (for November 2011 onwards), China Airlines (for January 2014 onwards), Philippine Airlines (for December 2015 onwards), AirAsia X (for April 2016 onwards) and Singapore Airlines (for September 2016 onwards) divided by the number of available seats.

- Revenue passenger kilometres are calculated by multiplying the number of revenue passengers travelling on each flight stage by the distance in kilometres between the airports. Modelled estimates of air passenger travel (Table T 3.1) differ from survey results for domestic airline revenue passenger travel.
- Domestic revenue passenger kilometres divided by available seat kilometres.

Table T 6.4

- Regular Public Transport (RPT) operations only. RPT is aircraft transport available to the public and operated to fixed schedules and between specified fixed terminals.

Table T 6.5

Airline on time measures are provided in terms of on time departures (flights that depart within 15 minutes of the scheduled departure time), on time arrivals (flights that arrive within 15 minutes of the scheduled arrival time) and cancellations (flights cancelled or rescheduled within seven days of the scheduled departure time).

- Participating airlines are Jetstar, Qantas, QantasLink, Regional Express, Tigerair Australia, Virgin Australia and Virgin Australia Regional Airlines.

Table T 6.6

Airfare indexes provided are the annual average of monthly indexes compiled by BITRE.

Shipping

Deadweight tonnage (DWT) is the measure of weight that a vessel can carry, including cargo, bunkers, water and stores, expressed in tonnes.

Table T 7.1

The main source of information on intercapital sea distances was The Ports of Australia (Australian Chamber of Shipping 1993). Where optional routes are available, the shorter distance was used.

Tables T 7.2–T 7.3

Tables T 7.2 and T 7.3 provide estimates of the number of ships that visit major ports or states and the number of vessel visits a port or state receive during a financial year.

- Improvements have been made to the methodology used to compile estimates of port calls, with revisions back to 1998-99.
- From 2010–11 the Lloyd's ship movement data set has increasingly captured ship movements where the target port equals the previous port. These 'within port calls' often occur when a ship moves from anchorage to a port. These 'within port calls' have been excluded from all ship movement figures to ensure consistency across the time series and

to capture only port calls, not all vessel movements. For consistency, vessels which made only within port calls in Australia during a financial year are excluded from the number of cargo ships that called at Australian ports for that year.

- Landing craft are smaller general cargo vessels with a flat bottom that can be landed on a shore. In the Infrastructure Yearbook 2019, all landing craft in the Lloyd's ship movement data are included. Previously they were excluded from Tables T 7.2 and T 7.3.

Tables T 7.4–T 7.6

Tables T 7.4, T 7.5 and T 7.6 provide estimates of the tonnes of cargo loaded or discharged from ships at Australian ports. Domestic cargo is recorded in these estimates at both the port of loading and the port of discharge, while international cargo is recorded only at the Australian port of loading or discharge.

- Merchandise trade data have a different scope to the previously used cargo statistics with one of the differences being the inclusion of exports' ship and aircraft stores.
- Port throughput data may differ slightly from data reported directly by port authorities.

Table T 7.8

Table T 7.8 provides the number of ships operating out of Australian ports for at least part of the financial year that are owned or operated by Australian entities. In any financial year, there may be ships managed by Australian registered companies that operate internationally without calling into Australian ports.

Tables T 7.9–T 7.10

A list of the Major Australian registered trading vessels (greater than 2 000 DWT) engaged in Australian coastal and international trade is provided in Tables T 7.9 and T 7.10. Australian Trading Vessels are defined as cargo ships that are owned or operated by Australian companies as at the end of the financial year. The trading fleet includes ships that carried cargo, or both cargo and passengers, but excludes ships that carried passengers only. Cargo ships in the trading fleet must have called at an Australian port during the reporting year. Vessels are classified to coastal or international trade based on their primary activity. Some predominantly international trading vessels occasionally engage in coastal trade and some predominantly coastal trading vessels occasionally engage in international trade.

Safety

Fatalities include injuries resulting in death within 30 days of the accident where death is attributable to injuries sustained during the accident.

Serious injuries are defined as injuries that require hospitalisation.

Table T 8.1

Table T 8.1 provides a cross-modal comparison of fatality accidents and fatalities. Road statistics are compiled by BITRE, while marine and aviation statistics are compiled by the Australian Transport Safety Bureau (ATSB) and rail statistics are compiled by the Office of the National Rail Safety Regulator (ONRSR). ONRSR is an independent body corporate with regulatory safety oversight for South Australia, New South Wales, Tasmania, Northern Territory, Victoria and the Australian Capital Territory. Data are not currently available for the number of rail fa32tality accidents.

Marine accident and fatalities statistics only include occurrences reported to ATSB which take place in Australia's maritime jurisdiction. They include accidents and other safety incidents involving Australian registered trading vessels (cargo and/or passengers) and trading vessels flying foreign flags. They also include injuries on board recreational and fishing vessels drawn into accidents that also involved a ship.

Marine accidents are defined as an occurrence involving a vessel where:

- A person dies or suffers serious injury as a result of an occurrence associated with the operation of the vessel; or
- The vessel is destroyed or seriously damaged as a result of an occurrence associated with the operation of the vessel; or
- Any property is destroyed or seriously damaged as a result of an occurrence associated with the operation of the vessel (Transport Safety Investigation Act 2003).

Aviation accidents are defined as:

- Aviation accident statistics include all occurrences associated with the operation of an aircraft which take place between the time any person boards the aircraft with the intention of flight until disembarking, in which a person is injured as a result of:
  - being in the aircraft, or
  - direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
  - direct exposure to jet blast.
- For aviation safety statistics, injuries include serious and minor injuries.

For road data the definitions are:

- Crash – Any apparently unpremeditated event reported to police, or other relevant authority, and resulting in death, injury or property damage attributable to the movement of a road vehicle on a public road.
- Fatal crash – A crash for which there is at least one death

Cross–modal comparisons should be undertaken with caution as level crossing accidents between trains and road vehicles are included in the estimates of both modes from 2001 (level crossing deaths were not included in rail fatality statistics prior to 2001). In addition, suicides are excluded from aviation casualty estimates and road estimates but included in rail estimates from 2001 to 2011.

- Includes accidents and other safety incidents involving Australian registered trading vessels (cargo and/or passengers), trading vessels flying foreign flags, and Australian Domestic Commercial Vessels.
- Only includes occurrences within Australia's maritime jurisdiction
- Includes injuries on board recreational and fishing vessels involved in accidents that also involved a ship
- Table 8.1a includes only accidents (see definition above)
- Table 8.1b includes all fatalities (and missing persons) and serious injuries to both crew and passengers

Tables T 8.2–T 8.9

Fatality rates and serious injury rates are presented for each mode using population data provided in Table I 1.5 and passenger kilometre data provided in Table T 3.1.

- Between 1989 and 1997, statistics for hospitalised injury crashes were based on statistics compiled from police accident reports. Comparable national statistics are no longer available from these sources.
- From 2000–01, serious injury statistics for roads are compiled on a financial year basis (year ended 30 June) from hospital records provided to the Australian Institute of Health and Welfare and maintained on their National Hospital Morbidity Database.
  2012 calendar year data is not directly comparable with previous years due to a break in the hospitalised injury series in 2012. A large jurisdiction changed case inclusion criteria to exclude cases cared for solely in Emergency Departments from 1 July 2012. The National Injury Surveillance Unit (NISU) estimates this decreased admitted case counts in Australia by 2000 cases (-5.6 per cent) in 2012–13 compared to 2011–12. The estimated decrease in 2012 was approximately 1000 cases, or -2.8 per cent, with the reduction likely to differ by road user group."

Tables T 8.10–T 8.12

Rail safety statistics are sourced from the Office of the National Rail Safety Regulator (ONRSR).

Rail occurrence data for 2012 onwards include only heavy rail (excluding tram, non-heavy rail tourist and heritage operators) operations. Rail occurrence data from 2001 onwards excludes tram and monorail. Fatality and serious injury data excludes suspected suicide and trespass.

- NSW records occurrences where transfers by ambulance were required (excluding a person being transported for non-rail safety related health reasons, e.g. heart attack, seizure) as proxies for serious injuries. Consequently, this information has been provided separately.
- The Rail Safety National Law came into force in ACT on 20 November 2014. Prior to this there were no formal legal requirements for operators in ACT to notify rail safety occurrences.

The data are based on information provided by rail operators. The ONRSR cannot guarantee the accuracy or completeness of information provided by third parties.

Tables T 8.13–T 8.15

Aviation accident statistics include all occurrences associated with the operation of an aircraft which take place between the time any person boards the aircraft with the intention of flight until disembarking, in which a person is injured as a result of:

- being in the aircraft, or
- direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
- direct exposure to jet blast.

For aviation safety statistics, injuries include serious and minor injuries.

Casualties are excluded when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew.

Energy and the environment

Tables T 9.1–T 9.2

Australian petroleum sales data include reporting companies' own use of petroleum products, but excludes refinery fuel.

- Includes all LPG production and trade.
- All diesel imports are included in automotive diesel.

Table T 9.3

Annual average retail petrol prices are calculated as a simple average of daily unleaded petrol prices at metropolitan and regional locations across Australia (where prices are available).

National averages are calculated as weighted averages of the state/territory prices, with weights based on vehicle numbers using petrol in each region.

Tables T 9.4–T 9.13

Emission estimates that are provided in terms of carbon dioxide equivalent emissions in Tables T 9.4 and T 9.5 follow the emission accounting framework of the National Greenhouse Gas Inventory (NGGI) and include only the directly radiative gases carbon dioxide, methane and nitrous oxide emitted from transport fuel combustion (with the exception of CO2 released from the in-vehicle combustion of biofuels), These estimates of carbon dioxide equivalent emissions do not include upstream emissions (from fuel or electricity supply), the indirect effects of gases such as carbon monoxide, nitrogen oxides and non–methane volatile organic compounds, or the direct effects of black carbon emissions or fluorocarbon releases. Emission estimates are available in Tables T 9.6 to

T 9.8 for carbon dioxide, methane and nitrous oxide without conversion to carbon dioxide equivalent. The carbon dioxide equivalent values (Tables T 9.4 and T 9.5) use conversion factors,

Global Warming Potentials, for calculating the CO2 equivalent mass estimates for emissions of methane and nitrous oxide, using a reference period for warming effects of 100 years, from previous Intergovernmental Panel on Climate Change (IPCC) guidelines.

Greenhouse gas emissions presented in tables T 9.4 to T 9.8 represent emissions from end-use activity only. That is, they do not include emissions from 'upstream' activity (primarily fuel refining, electricity generation and biofuel production).

Estimates for maritime and aviation emissions only include domestic transport (coastal shipping and domestic aviation).

A discussion of the modelling techniques used is available in Greenhouse Gas Emissions from Australian Transport (BITRE 2009, BTRE 2006b) and Long-Term Projections of Australian Transport Emissions: Base Case 2010 (BITRE 2010).

Part E Energy

Energy infrastructure

Table E 1.1

Table E 1.1 provides estimates of engineering construction work done on energy infrastructure, providing energy detail to the data provided in Table I 2.1. The ABS definition of pipelines used in this table includes oil and gas pipelines, urban supply mains for gas, pipelines for refined petroleum products, chemicals, etc. Pipelines used for water supply are included in the category 'water storage and supply' (see Table W 1.1). Figures presented in this table are in real terms, adjusted for price changes using a deflator calculated by dividing the current value of total engineering construction for each quarter by the equivalent chain volume measure, and then aggregating to financial year data.

Table E 1.2 and E 1.3

Early statistics (up to 1993–94) presented in these tables were sourced from a Historical Data Disk produced by ESAA. ESAA also provided data from 1997–98, however data for 1994–95 to 1996–97 were not available. From 1997–98, measures of ACT activity were included with NSW and were not available separately.

Table E 1.4

Table E 1.4 provides reliability measures of electricity supply. The data is collected by distribution network. Region averages are weighted by the number of customers in each network. Likewise, the nationally weighted data is an average of the region data (weighted by the number of customers in each region).

In general, data have not been normalised to exclude distribution outages beyond the reasonable control of the network operator.

Energy production and usage

Table E 2.13

State and territory based estimates of petroleum fuel consumption by the petroleum refining and basic chemicals manufacturing industries are not separately available for publication, but have been included in the other manufacturing industry. Estimates for the petroleum refining and basic chemical manufacturing industries are available at the national level.

Petroleum products includes crude oil and other refinery feedstock, LPG, auto-gasoline leaded, auto-gasoline unleaded, aviation gasoline, aviation turbine fuel, lighting kerosene, power kerosene, heating oil, automotive diesel oil (ADO), industrial diesel fuel (IDF), Fuel oil, petroleum products nec, Solvents, Lubricants and greases.

Table E 2.14

Annual world crude oil prices are presented as the average of quarterly prices compiled by OCE from posted or official selling prices with Rotterdam spot prices for Middle East and North Sea crudes.

- Middle East crude, 32 American Petroleum Institute (API) gravity.
- North Sea crude, 38 API gravity.
- North American crude, 40 API gravity.
- Australian crude, 42 API gravity.
- Malaysia tapis blend, 44 API gravity.

API gravity is an international standard measure of crude oil density, with higher API gravities signifying lighter oils. Light crude oil has an API gravity higher than 30.

Energy safety and emissions

Table E 3.1

production or use of energy in Australia. This table provides estimates of hospital admissions due to exposure to electricity, radiation, or extreme temperature/pressure for Australia. Further disaggregation of these estimates to measure admissions by states is not possible.

It is not meaningful to compare the data for since 2014–15 with data for previous years. Since 2014–15 the AIHW's figures reflect counts only for separations for which the principal diagnosis was an injury or poisoning. Prior to 2014–15 the figures presenting external causes included counts for separations for which the principal diagnosis was not an injury or poisoning, and the external cause was related to an additional diagnosis (that is, a diagnosis that was not the cause of the hospitalisation, for example, a post-procedural complication).

Part C Communications

Communications infrastructure

Table C 1.1

Table C 1.1 provides estimates of engineering construction work done on telecommunications infrastructure, drawing together telecommunications data provided in Table I 2.1. Figures presented in this table are in real terms, adjusted for price changes using a deflator calculated by dividing the current value of total engineering construction for each quarter by the equivalent chain volume measure, and then aggregating to financial year data.

Table C 1.2

Table C 1.2 provides a number of broad indicators of capital investment by selected communications industries using the national accounts concepts gross fixed capital expenditure, net capital expenditure, and depreciation and amortisation.

Gross fixed capital expenditure represents the total value of producers' acquisitions less disposals of fixed assets during a financial year, where fixed assets are assets used repeatedly in processes of production for more than one year (e.g. vehicles, machinery, capitalised computer software, computers, electronics, houses, buildings and structures, mining exploration expenditure, etc).

Net capital expenditure represents the value of total capital expenditure less disposal of assets. Depreciation and amortisation represent the notional reduction in value (consumption) of an asset over the life of the asset, apportioned to the reference time period (depreciation usually refers to the reduction in value of tangible assets and amortisation usually refers to the reduction in value of intangible assets).

Subscriptions and prices

Table C 3.1 to Table C 3.2

Statistics on communications subscribers and providers are classified according to the technology or medium used. For telecommunications, Table C 3.1 provides estimates of the number of public payphones, fixed voice telephones and terrestrial mobile phones (excludes satellite mobile phones), while Table C 3.2 provides recent estimates of total number of terrestrial mobile subscribers.

Table C 3.3 to Table C 3.4

Table C 3.3 provides a summary of internet subscribers by download speed and type of subscriber, while Table C 3.4 provides a summary of internet subscribers by type of access connection. In earlier years, statistics for both tables reflect information gathered from a complete census of all internet service providers, but for the December 2009 collection,

information was gathered from a survey of only the internet service providers with more than 1000 active subscribers.

Table C 3.5

The numbers presented are an annual average of the quarterly telecommunication services index that contributes to the Consumer Price Index estimation process. Indexes are available for capital cities only.

Part W Water

Water infrastructure

Table W 1.1

Table W 1.1 provides estimates of engineering construction work done on water infrastructure, providing water detail to the data provided in Table I 2.1. Pipelines used for water supply and sewerage and drainage are included in this Table, however the ABS definition of pipelines used in Table E 1.1 includes oil and gas pipelines, urban supply mains for gas, pipelines for refined petroleum products, chemicals, etc. Figures presented in this table are in real terms, adjusted for price changes using a deflator calculated by dividing the current value of total engineering construction for each quarter by the equivalent chain volume measure, and then aggregating to financial year data.

Table W 1.3

- A definition of 'large dams' is provided by the Australian National Committee on Large Dams (ANCOLD): The dam wall must be more than 15 m in height, or more than 10 m in height, but with:
  - a crest of at least 500 m in length,
  - a capacity of at least 1 million cubic metres,
  - a maximum flood discharge dealt with by the dam of at least 2000 cubic metres per second, or
  - unusual design.
- From 2010–11, data are sourced from Water Storage. Capacity measures on Water Storage measure accessible capacity (excludes "dead storage" – water at the bottom of the dam, below the take-off pipe that cannot be accessed).

Water inputs and prices

Table W 2.1

The total volume of rainwater available each year is a function of the area averaged annual state and territory rainfall and the land area of each state/territory.

- Includes mainland area and island area. Total Australian island area is 32,163 square kilometres.
- NSW figures include estimates for New South Wales, the Australian Capital Territory and Jervis Bay territory.

Rural water use and value

Table W 3.2

- The register of all farms in scope of the statistical collection prior to 2005–06 was maintained internally by ABS. From 2005–06 on, the register of all farms was derived from the Australian Business Register, maintained by the Australian Taxation Office.
- This series groups several agricultural activities into the one measure. Relative standard errors were calculated for component series, but are not available for the new measure..

Table W 3.4

The application rate for irrigation water is calculated by dividing the total volume of irrigation water applied by the area of pasture or crop that is being irrigated.

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