



Australian Government

Department of Infrastructure and Regional Development

Bureau of Infrastructure, Transport and Regional Economics

STATISTICAL REPORT

Yearbook 2014

Australian infrastructure statistics

Bureau of Infrastructure, Transport and Regional Economics

Australian infrastructure statistics yearbook 2014

Department of Infrastructure and Regional Development
Canberra, Australia

© Commonwealth of Australia 2014

ISSN: 1838-9244 (Print)

ISSN: 1838-9252 (Online)

ISBN: 978-1-925216-21-9

December 2014/INFRA2346

Cover photograph: The Firetail ore processing facility at Fortescue Metals Group's Solomon Hub. It was commissioned in May 2013 and produces 20 million tonnes per annum. Courtesy of Fortescue Metals Group.

Ownership of intellectual property rights in this publication

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia (referred to below as the Commonwealth).

Disclaimer

The material contained in this publication is made available on the understanding that the Commonwealth is not providing professional advice, and that users exercise their own skill and care with respect to its use, and seek independent advice if necessary.

The Commonwealth makes no representations or warranties as to the contents or accuracy of the information contained in this publication. To the extent permitted by law, the Commonwealth disclaims liability to any person or organisation in respect of anything done, or omitted to be done, in reliance upon information contained in this publication.

Creative Commons licence

With the exception of (a) the Coat of Arms; and (b) the Department of Infrastructure's photos and graphics, copyright in this publication is licensed under a Creative Commons Attribution 3.0 Australia Licence.

Creative Commons Attribution 3.0 Australia Licence is a standard form licence agreement that allows you to copy, communicate and adapt this publication provided that you attribute the work to the Commonwealth and abide by the other licence terms. A summary of the licence terms is available from <http://creativecommons.org/licenses/by/3.0/au/deed.en>. The full licence terms are available from <http://creativecommons.org/licenses/by/3.0/au/legalcode>.

Use of the Coat of Arms

The Department of the Prime Minister and Cabinet sets the terms under which the Coat of Arms is used. Please refer to the Department's Commonwealth Coat of Arms and Government branding web page <http://www.dPMC.gov.au/guidelines/index.cfm#brand> and, in particular, the Guidelines on the use of the Commonwealth Coat of Arms publication.

An appropriate citation for this report is:

Bureau of Infrastructure, Transport and Regional Economics (BITRE), 2014, *Yearbook 2014: Australian Infrastructure Statistical Report*, BITRE, Canberra ACT.

Contact us

This publication is available in PDF format. All other rights are reserved, including in relation to any Departmental logos or trade marks which may exist. For enquiries regarding the licence and any use of this publication, please contact:

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

Telephone: (international) +61 2 6274 7210

Fax: (international) +61 2 6274 6855

Email: bitre@infrastructure.gov.au

Website: www.bitre.gov.au

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 publication is primarily a source of long-term, aggregate time series infrastructure statistics. In most cases the time series extend to 2012–13. A brief introduction is provided to explain the structure of the publication and areas identified for further development. Most statistics included in the publication are currently collected by BITRE or other Australian, state or territory government agencies.

The tables are presented within a logical framework to assist the comparison and analysis of statistics across the various forms of infrastructure. This framework also identifies areas where further statistics may provide a more complete statistical picture of Australian infrastructure.

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.

BITRE would like to acknowledge input from the Australian Bureau of Statistics, the Australian Communications and Media Authority, the Australian Energy Regulator, the Australian Institute of Health and Welfare, the Australian Transport Safety Bureau, the Bureau of Meteorology, the Bureau of Resources and Energy Economics, the Civil Aviation Safety Authority, the Department of Communications, the Department of the Environment, the Energy Supply Association of Australia, Geoscience Australia, the National Water Commission, the Office of the National Rail Safety Regulator and Tourism Research Australia.

Bryan Lee at the Bureau of Infrastructure, Transport and Regional Economics managed and coordinated the project. Simon O'Mahony undertook the update of the water chapter.

Gary Dolman
Head of Bureau
Bureau of Infrastructure, Transport and Regional Economics
December 2014

Contents

Foreword.....	iii
Introduction	I
PART I: INFRASTRUCTURE AND THE ECONOMY	9
Chapter 1 The economy.....	13
Chapter 2 Infrastructure construction.....	27
PART T: TRANSPORT	31
Chapter 1 Transport infrastructure.....	35
Chapter 2 Freight.....	47
Chapter 3 Passengers.....	59
Chapter 4 Road.....	75
Chapter 5 Rail.....	93
Chapter 6 Aviation.....	99
Chapter 7 Shipping.....	107
Chapter 8 Safety.....	121
Chapter 9 Energy and the environment.....	145
PART E: ENERGY.....	159
Chapter 1 Energy infrastructure.....	163
Chapter 2 Inputs to energy supply	179
Chapter 3 Energy production and usage	185
Chapter 4 Energy safety and emissions.....	241
PART C: COMMUNICATION.....	253
Chapter 1 Communication infrastructure	257
Chapter 2 Investment in information technology	259
Chapter 3 Subscribers and providers	263
Chapter 4 Price and activity	267
Chapter 5 Communications security.....	271

PART W: WATER..... 273

Chapter 1 Water infrastructure.....277

Chapter 2 Water inputs.....291

Chapter 3 Supply and use.....297

Chapter 4 Health and emissions.....325

End notes and definitions.....331

References361

List of tables

Table I 1.1a	Australian gross domestic product, major infrastructure industries.....	13
Table I 1.1b	Australian gross domestic product, transport industry.....	14
Table I 1.2a	Australian employment, major infrastructure industries— transport and storage.....	15
Table I 1.2b	Australian employment, major infrastructure industries—energy	16
Table I 1.2c	Australian employment, major infrastructure industries—communication ...	17
Table I 1.2d	Australian employment, major infrastructure industries—water.....	18
Table I 1.3a	Australian average weekly earnings, transport industry.....	19
Table I 1.3b	Australian average weekly earnings, energy industry	19
Table I 1.3c	Australian average weekly earnings, communication industry.....	19
Table I 1.3d	Australian average weekly earnings, water industry.....	20
Table I 1.4a	Australian producer price indexes, transport industry.....	20
Table I 1.4b	Australian producer price indexes, communications industry.....	21
Table I 1.5a	Australian population, by state/territory—capital city	22
Table I 1.5b	Australian population, by state/territory —rest of state	23
Table I 1.5c	Australian population, by state/territory—total	24
Table I 1.6	Key indicators influencing Australian infrastructure	25
Table I 2.1a	Value of major infrastructure engineering construction work done by the private sector for the private sector, adjusted by chain volume index.....	27
Table I 2.1b	Value of major infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index.....	28
Table I 2.1c	Value of major infrastructure engineering construction work done by the public sector, adjusted by chain volume index	29
Table I 2.1d	Total value of major infrastructure engineering construction work done, adjusted by chain volume index.....	30
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....	35
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.....	36

Table T 1.1c	Value of transport infrastructure engineering construction work done by the public sector, adjusted by chain volume index	37
Table T 1.1d	Total value of transport infrastructure engineering construction work done, adjusted by chain volume index	38
Table T 1.2a	Road-related expenditure by Commonwealth, 1998–99 to 2012–13 (constant 2012–13 prices)	39
Table T 1.2b	Road-related expenditure by State, 1998–99 to 2012–13 (constant 2012–13 prices)	39
Table T 1.2c	Road-related expenditure by Local, 1998–99 to 2012–13 (constant 2012–13 prices)	40
Table T 1.2d	Road-related expenditure by All Government, 1998–99 to 2012–13 (constant 2012–13 prices)	40
Table T 1.2e	Road-related expenditure by All Government and Private Sector, 1998–99 to 2012–13 (constant 2012–13 prices)	41
Table T 1.3	Selected road-related taxes and charges	41
Table T 1.4	Total road length by state/territory, by road type	42
Table T 1.5	Selected road construction and maintenance price and cost indexes, for Australia and for states and territories	43
Table T 1.6a	Rail-related expenditure by Commonwealth, 1998–99 to 2012–13 (constant 2012–13 prices)	44
Table T 1.6b	Rail-related expenditure by State 1998–99 to 2012–13 (constant 2012–13 prices)	44
Table T 1.6c	Rail-related expenditure by All Government, 1998–99 to 2012–13 (constant 2012–13 prices)	45
Table T 1.6d	Rail-related expenditure by All Government and Private Sector, 1998–99 to 2012–13 (constant 2012–13 prices)	45
Table T 2.1a	Total, bulk and non-bulk domestic freight, by transport mode—bulk	47
Table T 2.1b	Total, bulk and non-bulk domestic freight, by transport mode—non-bulk	48
Table T 2.1c	Total, bulk and non-bulk domestic freight, by transport mode—total bulk and non-bulk	49
Table T 2.2a	Total domestic freight by state/territory, by transport mode—road	50
Table T 2.2b	Total domestic freight by state/territory, by transport mode—rail	51
Table T 2.2c	Total domestic freight by state/territory, by transport mode—shipping	52
Table T 2.2d	Total domestic freight by state/territory, by transport mode—total	52

Table T 2.3a	Intrastate freight by state/territory, by transport mode—road.....	53
Table T 2.3b	Intrastate freight by state/territory, by transport mode—rail.....	54
Table T 2.3c	Intrastate freight by state/territory, by transport mode—shipping.....	54
Table T 2.4a	Interstate freight by state/territory, by transport mode—road.....	55
Table T 2.4b	Interstate freight by state/territory, by transport mode—shipping.....	56
Table T 2.5	Urban road freight by capital city	57
Table T 3.1	Total passenger travel by transport mode	59
Table T 3.2	Inter-capital city passenger travel by city pair.....	60
Table T 3.3a	Total passenger kilometres travelled by capital city—Sydney	61
Table T 3.3b	Total passenger kilometres travelled by capital city—Melbourne.....	62
Table T 3.3c	Total passenger kilometres travelled by capital city—Brisbane	63
Table T 3.3d	Total passenger kilometres travelled by capital city—Adelaide.....	64
Table T 3.3e	Total passenger kilometres travelled by capital city—Perth.....	65
Table T 3.3f	Total passenger kilometres travelled by capital city—Hobart.....	66
Table T 3.3g	Total passenger kilometres travelled by capital city—Darwin.....	67
Table T 3.3h	Total passenger kilometres travelled by capital city—Canberra	68
Table T 3.3i	Total passenger kilometres travelled by capital city—Australian capital cities.....	69
Table T 3.4a	Method of travel to work by state/territory—New South Wales	70
Table T 3.4b	Method of travel to work by state/territory—Victoria	70
Table T 3.4c	Method of travel to work by state/territory—Queensland.....	70
Table T 3.4d	Method of travel to work by state/territory—South Australia.....	71
Table T 3.4e	Method of travel to work by state/territory—Western Australia.....	71
Table T 3.4f	Method of travel to work by state/territory—Tasmania	71
Table T 3.4g	Method of travel to work by state/territory—Northern Territory.....	72
Table T 3.4h	Method of travel to work by state/territory—Australian Capital Territory..	72
Table T 3.4i	Method of travel to work by state/territory—total Australia.....	72
Table T 3.4j	Method of travel to work by state/territory—total employed persons by state/territory.....	73
Table T 4.1	Intercapital road distances	75

Table T 4.2	Total vehicle kilometres travelled, by vehicle type.....	76
Table T 4.3	Total vehicle kilometres travelled by state/territory	77
Table T 4.4	Total vehicle kilometres travelled by capital city	78
Table T 4.5	Total road freight, by vehicle type.....	79
Table T 4.6	Private vehicle ownership and operating cost indices.....	80
Table T 4.7	Stock of registered motor vehicles by vehicle type	81
Table T 4.8	Stock of registered motor vehicles by state/territory.....	82
Table T 4.9	New motor vehicles sales, excluding motor cycles, by vehicle type.....	83
Table T 4.10	New motor vehicles sales excluding motor cycles, by state/territory.....	83
Table T 4.11a	Licence holders by age and gender—New South Wales.....	84
Table T 4.11b	Licence holders by age and gender—Victoria.....	84
Table T 4.11c	Licence holders by age and gender—Queensland	85
Table T 4.11d	Licence holders by age and gender—South Australia.....	85
Table T 4.11e	Licence holders by age and gender—Western Australia	86
Table T 4.11f	Licence holders by age and gender—Tasmania.....	86
Table T 4.11g	Licence holders by age and gender—Northern Territory.....	87
Table T 4.11h	Licence holders by age and gender—Australian Capital Territory.....	87
Table T 4.11i	Licence holders by age and gender—Australia.....	88
Table T 4.12a	Licensed vehicle operators by vehicle type—New South Wales.....	88
Table T 4.12b	Licensed vehicle operators by vehicle type—Victoria	89
Table T 4.12c	Licensed vehicle operators by vehicle type—Queensland.....	89
Table T 4.12d	Licensed vehicle operators by vehicle type—South Australia	90
Table T 4.12e	Licensed vehicle operators by vehicle type—Tasmania.....	90
Table T 4.12f	Licensed vehicle operators by vehicle type—Northern Territory	91
Table T 4.12g	Licensed vehicle operators by vehicle type— Australian Capital Territory	91
Table T 5.1a	Intercapital rail distances—freight terminals.....	93
Table T 5.1b	Intercapital rail distances—passenger terminals.....	94
Table T 5.2a	Route-kilometres of open railway, by jurisdiction and gauge.....	94

Table T 5.2b	Route-kilometres of open railway, by jurisdiction and single or double (or more) trackage	94
Table T 5.2c	Route-kilometres of open railway, by jurisdiction and overhead electrical system used	95
Table T 5.3	Network characteristics of urban railways.....	95
Table T 5.4	Interstate non-bulk rail freight by state/territory of origin.....	96
Table T 5.5a	Public transit patronage on heavy rail, Australian capital cities.....	97
Table T 5.5b	Public transit patronage on light rail, Australian capital cities.....	98
Table T 6.1	Intercapital air distances (great circle distances)	99
Table T 6.2	International airline activity.....	100
Table T 6.3	Domestic airline activity.....	101
Table T 6.4a	Activity at major airports—revenue passengers (thousand).....	102
Table T 6.4b	Activity at major airports—aircraft movements.....	103
Table T 6.5	Domestic on-time performance	104
Table T 6.6	BITRE airfare index	104
Table T 6.7	Number of Australian registered aircraft by aircraft type.....	105
Table T 7.1	Intercapital sea distances	107
Table T 7.2a	Number of cargo ships involved in coastal or international voyages that made port calls, by state/territory	108
Table T 7.2b	Number of port calls made by ships involved in coastal or international voyages, by state/territory.....	108
Table T 7.3a	Number of ships involved in coastal or international voyages that made port calls, by major ports.....	109
Table T 7.3b	Number of port calls made by ships involved in coastal or international voyages, by major ports	109
Table T 7.4	International sea freight to and from Australia	110
Table T 7.5a	Cargo loaded (including exports) at Australian ports, by state/territory....	111
Table T 7.5b	Cargo discharged (including imports) at Australian ports, by state/territory.....	111
Table T 7.6a	Cargo loaded (including exports), by selected Australian ports.....	112
Table T 7.6b	Cargo discharged (including imports), by selected Australian ports.....	112
Table T 7.7a	Cargo loaded (including exports), by capital city ports.....	113

Table T 7.7b	Cargo discharged (including imports), by capital city ports	113
Table T 7.8	Containers exchanged, selected Australian ports	114
Table T 7.9a	Summary of the Australian trading fleet—number of vessels	115
Table T 7.9b	Summary of the Australian trading fleet—deadweight (tonnes)	115
Table T 7.9c	Summary of the Australian trading fleet—gross tonnage (tonnes)	116
Table T 7.9d	Summary of the Australian trading fleet—age distribution (percentage of total deadweight (tonnes))	116
Table T 7.10a	Ships in the major trading fleet—overseas trades, 2012–13—tankers	117
Table T 7.10b	Ships in the major trading fleet—overseas trades, 2012–13— bulk carriers	117
Table T 7.10c	Ships in the major trading fleet—overseas trades, 2012–13— container carriers	118
Table T 7.10d	Ships in the major trading fleet—overseas trades, 2012–13— livestock carriers	118
Table T 7.10e	Ships in the major trading fleet—overseas trades, 2012–13— general cargo ships	118
Table T 7.11a	Ships in the major trading fleet—coastal trades, 2012–13—tankers	119
Table T 7.11b	Ships in the major trading fleet—coastal trades, 2012–13— bulk carriers	119
Table T 7.11c	Ships in the major trading fleet—coastal trades, 2012–13— general cargo	120
Table T 8.1a	Number of fatalities and fatality accidents by transport mode—accidents..	121
Table T 8.1b	Number of fatalities and fatality accidents by transport mode—fatalities..	122
Table T 8.2a	Fatality rate and injury rate, by transport mode—fatality rate	123
Table T 8.2b	Fatality rate and injury rate, by transport mode—injury rate	124
Table T 8.3a	Fatality rate and injury rate by transport mode—fatality rate	125
Table T 8.3b	Fatality rate and injury rate by transport mode—injury rate	126
Table T 8.4a	Number of road accidents and casualties by accident severity—accidents..	127
Table T 8.4b	Number of road accidents and casualties by accident severity—casualties....	128
Table T 8.5a	Road accident rate and casualty rate, by accident severity—accident rate	129
Table T 8.5b	Road accident rate and casualty rate, by accident severity— casualty rate	130

Table T 8.6a	Number of fatal road accidents and fatalities, by state/territory— accidents	131
Table T 8.6b	Number of fatal road accidents and fatalities, by state/territory— fatalities	132
Table T 8.7a	Fatal road accident rate and fatality rate, by state/territory— accident rate	133
Table T 8.7b	Fatal road accident rate and fatality rate, by state/territory— fatality rate	134
Table T 8.8	Number of road accidents involving serious injuries, by state/territory— serious injuries	135
Table T 8.9	Road accident rate and serious injury rate, by state/territory— injury rate	136
Table T 8.10	Number of rail casualties, by severity	137
Table T 8.11	Number of rail fatalities, by state/territory	138
Table T 8.12	Rail fatality rate per 100 000 population, by state/territory	138
Table T 8.13a	Number of aviation accidents and casualties by accident severity— accidents	139
Table T 8.13b	Number of aviation accidents and casualties by accident severity— casualties	140
Table T 8.14a	Aviation accident rate and casualty rate, by accident severity— accident rate	141
Table T 8.14b	Aviation accident rate and casualty rate, by accident severity— casualty rate	142
Table T 8.15a	Number of aviation accidents and casualties, by state/territory— accidents	143
Table T 8.15b	Number of aviation accidents and casualties, by state/territory— fatalities	144
Table T 9.1	Total transport petroleum sales, by fuel type	145
Table T 9.2a	Australian petroleum production, imports and exports—production	146
Table T 9.2b	Australian petroleum production, imports and exports—imports	146
Table T 9.2c	Australian petroleum production, imports and exports—exports	147
Table T 9.3	Average retail petrol prices in Australia, by state/territory	147
Table T 9.4	Transport direct greenhouse gas (carbon dioxide equivalent) emissions by transport mode	148

Table T 9.5	Road transport direct greenhouse gas (carbon dioxide equivalent) emissions, by vehicle type.....	149
Table T 9.6	Transport direct emissions, by transport mode—carbon dioxide	150
Table T 9.7	Transport direct emissions, by transport mode—methane.....	151
Table T 9.8	Transport direct emissions, by transport mode—nitrous oxide	152
Table T 9.9	Transport full fuel cycle greenhouse gas (carbon dioxide equivalent) emissions by transport mode.....	153
Table T 9.10	Transport energy use, by transport mode.....	154
Table T 9.11	Road transport energy use, by vehicle type.....	155
Table T 9.12	Energy use of major land transport fuels.....	156
Table T 9.13	Other transport energy use.....	157
Table E I.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.....	163
Table E I.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.....	164
Table E I.1c	Flow of new infrastructure—value of energy infrastructure engineering construction work done by the public sector; adjusted by chain volume index	165
Table E I.1d	Flow of new infrastructure—total value of energy infrastructure engineering construction work done, adjusted by chain volume index	166
Table E I.2a	Length of energy transmission networks—electricity transmission networks—overhead lines	167
Table E I.2b	Length of energy transmission networks—electricity transmission networks—underground cables.....	168
Table E I.3a	Infrastructure capacity—generation capacity, by type of plant—New South Wales	169
Table E I.3b	Infrastructure capacity—generation capacity, by type of plant—Victoria....	170
Table E I.3c	Infrastructure capacity—generation capacity, by type of plant—Queensland.....	171
Table E I.3d	Infrastructure capacity—generation capacity, by type of plant—South Australia.....	172
Table E I.3e	Infrastructure capacity—generation capacity, by type of plant—Western Australia.....	173

Table E 1.3f	Infrastructure capacity—generation capacity, by type of plant—Tasmania.....	174
Table E 1.3g	Infrastructure capacity—generation capacity, by type of plant— Northern Territory	175
Table E 1.3h	Infrastructure capacity—generation capacity, by type of plant— Snowy Mountains Hydro Electric Authority.....	176
Table E 1.4a	Infrastructure quality—electricity distribution supply reliability measures, National Electricity Market, by state—System Average Interruption Duration Index (SAIDI)	177
Table E 1.4b	Infrastructure quality—electricity distribution supply reliability measures, National Electricity Market, by state—System Average Interruption Frequency Index (SAIFI)	177
Table E 2.1	Energy inputs—Australia’s economic demonstrated mineral energy reserves	179
Table E 2.2a	Energy inputs—Australian electricity generation, input fuel— energy units.....	180
Table E 2.2b	Australian electricity generation, input fuel—physical units.....	181
Table E 2.3a	Energy inputs—Australian gas production and distribution, input fuel—energy units	182
Table E 2.3b	Australian natural gas production and distribution, input fuel— physical units.....	183
Table E 3.1a	Energy production and trade—Australian energy production (primary fuels), by fuel type—New South Wales	185
Table E 3.1b	Energy production and trade—Australian energy production (primary fuels), by fuel type—Victoria	186
Table E 3.1c	Energy production and trade—Australian energy production (primary fuels), by fuel type—Queensland.....	187
Table E 3.1d	Energy production and trade—Australian energy production (primary fuels), by fuel type—Western Australia.....	188
Table E 3.1e	Energy production and trade—Australian energy production (primary fuels), by fuel type—South Australia	189
Table E 3.1f	Energy production and trade—Australian energy production (primary fuels), by fuel type—Tasmania.....	190
Table E 3.1g	Energy production and trade—Australian energy production (primary fuels), by fuel type—Northern Territory	191
Table E 3.1h	Energy production and trade—Australian energy production (primary fuels), by fuel type—Australia	192

Table E 3.2	Energy production and trade—Australian energy imports, by fuel type.....	193
Table E 3.3a	Energy production and trade—Australian energy exports, by fuel type—petroleum exports.....	194
Table E 3.3b	Energy production and trade—Australian energy exports, by fuel type—non-petroleum exports.....	195
Table E 3.4	Electricity usage—Australian electricity consumption, by state/territory.....	196
Table E 3.5a	Electricity usage—Australian electricity consumption, by industry—New South Wales.....	197
Table E 3.5b	Electricity usage—Australian electricity consumption, by industry—Victoria.....	198
Table E 3.5c	Electricity usage—Australian electricity consumption, by industry—Queensland.....	199
Table E 3.5d	Electricity usage—Australian electricity consumption, by industry—South Australia.....	200
Table E 3.5e	Electricity usage—Australian electricity consumption, by industry—Western Australia.....	201
Table E 3.5f	Electricity usage—Australian electricity consumption, by industry—Tasmania.....	202
Table E 3.5g	Electricity usage—Australian electricity consumption, by industry—Northern Territory.....	203
Table E 3.5h	Electricity usage—Australian electricity consumption, by industry—Australia.....	204
Table E 3.6a	Electricity usage—number of electricity customers, by state/territory— residential.....	205
Table E 3.6b	Electricity usage—number of electricity customers, by state/territory— business.....	206
Table E 3.6c	Electricity usage—number of electricity customers, by state/territory— other (including public lighting and traction).....	207
Table E 3.6d	Electricity usage—number of electricity customers, by state/territory— total.....	208
Table E 3.7	Electricity usage—price index for residential electricity supply, by capital city.....	209
Table E 3.8a	Gas usage—Australian gas consumption, by industry— New South Wales.....	210
Table E 3.8b	Gas usage—Australian gas consumption, by industry—Victoria.....	211

Table E 3.8c	Gas usage—Australian gas consumption, by industry—Queensland	212
Table E 3.8d	Gas usage—Australian gas consumption, by industry—South Australia.....	213
Table E 3.8e	Gas usage—Australian gas consumption, by industry—Western Australia.....	214
Table E 3.8f	Gas usage—Australian gas consumption, by industry—Tasmania.....	215
Table E 3.8g	Gas usage—Australian gas consumption, by industry— Northern Territory	216
Table E 3.8h	Gas usage—Australian gas consumption, by industry—Australia.....	217
Table E 3.9	Gas usage—price index for gas and other household fuels, by capital city.....	218
Table E 3.10a	Black coal usage—Australian black coal consumption, by industry— New South Wales	219
Table E 3.10b	Black coal usage—Australian black coal consumption, by industry— Victoria	220
Table E 3.10c	Black coal usage—Australian black coal consumption, by industry— Queensland.....	221
Table E 3.10d	Black coal usage—Australian black coal consumption, by industry— South Australia.....	222
Table E 3.10e	Black coal usage—Australian black coal consumption, by industry— Western Australia.....	223
Table E 3.10f	Black coal usage—Australian black coal consumption, by industry— Tasmania	224
Table E 3.10g	Black coal usage—Australian black coal consumption, by industry— Northern Territory	225
Table E 3.10h	Black coal usage—Australian black coal consumption, by industry—Australia	226
Table E 3.11	Black coal usage—coal prices (export)	227
Table E 3.12a	Brown coal usage—Australian brown coal consumption, by industry— New South Wales	228
Table E 3.12b	Brown coal usage—Australian brown coal consumption, by industry— Victoria	229
Table E 3.12c	Brown coal usage—Australian brown coal consumption, by industry— Australia	230
Table E 3.13a	Petroleum usage—Australian petroleum fuel consumption, by industry— New South Wales	231

Table E 3.13b	Petroleum usage—Australian petroleum fuel consumption, by industry—Victoria.....	232
Table E 3.13c	Petroleum usage—Australian petroleum fuel consumption, by industry—Queensland.....	233
Table E 3.13d	Petroleum usage—Australian petroleum fuel consumption, by industry—South Australia.....	234
Table E 3.13e	Petroleum usage—Australian petroleum fuel consumption, by industry—Western Australia.....	235
Table E 3.13f	Petroleum usage—Australian petroleum fuel consumption, by industry—Tasmania	236
Table E 3.13g	Petroleum usage—Australian petroleum fuel consumption, by industry—Northern Territory	237
Table E 3.13h	Petroleum usage—Australian petroleum fuel consumption, by industry—Australia	238
Table E 3.14	Petroleum usage—world crude oil prices, by region of origin	239
Table E 4.1a	Energy safety—number of hospital admissions (separations) due to exposure to electricity, radiation, extreme temperature/pressure—public hospitals.....	241
Table E 4.1b	Energy safety—number of hospital admissions (separations) due to exposure to electricity, radiation, extreme temperature/pressure—private hospitals.....	241
Table E 4.2	Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions by type of emissions.....	242
Table E 4.3a	Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—New South Wales	243
Table E 4.3b	Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Victoria.....	244
Table E 4.3c	Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Queensland	245
Table E 4.3d	Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—South Australia	246
Table E 4.3e	Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Western Australia.....	247
Table E 4.3f	Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Tasmania.....	248
Table E 4.3g	Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Northern Territory.....	249

Table E 4.3h	Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Australian external territories.....	250
Table E 4.4	Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions, by type of fuel—Australia.....	251
Table E 4.5	Energy emissions—natural gas transmission greenhouse gas (carbon dioxide equivalent) emissions, by type of fuel—Australia.....	252
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.....	257
Table C 1.2a	Flow of new infrastructure—capital investment by selected communications industries—gross fixed capital formation.....	258
Table C 1.2b	Flow of new infrastructure—capital investment by selected communications industries—net capital expenditure.....	258
Table C 1.2c	Flow of new infrastructure—capital investment by selected communications industries—depreciation and amortisation.....	258
Table C 2.1	Investment in information technology—information media and telecommunications industry investment in information technology gross fixed capital formation, chain volume measures.....	259
Table C 2.2	Consumption of information technology—information media and telecommunications industry consumption of information technology fixed capital, chain volume measures.....	260
Table C 2.3	Stock of information technology—information media and telecommunications industry net capital stock of information technology assets, chain volume measures.....	261
Table C 3.1	Communications subscribers—number of services, by communications medium.....	263
Table C 3.2	Communications subscribers—total number of subscribers for terrestrial mobile services.....	263
Table C 3.3a	Communications subscribers—number of internet subscribers, by download speed—business and government subscribers.....	264
Table C 3.3b	Communications subscribers—number of internet subscribers, by download speed—household subscribers.....	264
Table C 3.3c	Communications subscribers—number of internet subscribers, by download speed—total all subscribers.....	265
Table C 3.4	Communications subscribers—number of internet subscribers, by access connection.....	266
Table C 3.5	Communications providers—number of internet service providers (ISP), by size.....	266

Table C 4.1	Communications prices—consumer price index, telecommunication services, index numbers by capital city.....	267
Table C 4.2	Communication activity—internet domain names registered, excluding “.gov.au” and community geographic domain names.....	268
Table C 4.3	Communication activity—internet commerce	268
Table C 4.4	Communication activity—internet use—volume of data downloaded by subscriber type, for ISPs with more than 1 000 active subscribers	269
Table C 5.1	Communication security—do not call register.....	271
Table C 5.2	Communication security—000 and 112 Emergency call services call handling.....	271
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.....	277
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.....	278
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	279
Table W 1.1d	Flow of new infrastructure—total value of water infrastructure engineering construction work done, adjusted by chain volume index	280
Table W 1.2a	Stock of infrastructure—current value of Australian water infrastructure, by state or territory—urban water infrastructure assets	281
Table W 1.2b	Stock of infrastructure—current value of Australian water infrastructure, by state or territory—waste water & sewerage infrastructure assets.....	281
Table W 1.2c	Stock of infrastructure—current value of Australian water infrastructure, by state or territory—irrigation and drainage	281
Table W 1.3	Infrastructure capacity—major Australian water storage dams.....	282
Table W 1.4	Infrastructure capacity—water storage in major dams—actual holdings of major water storage dams, by state/territory.....	283
Table W 1.5a	Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—urban water infrastructure assets.....	283
Table W 1.5b	Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—waste water and sewerage infrastructure assets	283
Table W 1.5c	Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—irrigation and drainage.....	284

Table W 1.6	Stock of infrastructure—number of urban water treatment plants providing full treatment, by state/territory	284
Table W 1.7	Stock of infrastructure—length of urban water mains, by state/territory	284
Table W 1.8	Water infrastructure—average number of properties served per kilometre of water main, by state/territory	285
Table W 1.9	Infrastructure quality—average number of water main breaks per 100 kilometres of water main, by state/territory	285
Table W 1.10	Stock of infrastructure—number of sewage treatment plants providing full treatment, by state/territory	285
Table W 1.11	Stock of infrastructure—length of sewerage mains and channels, by state/territory	286
Table W 1.12	Water infrastructure—average number of properties served per kilometre of sewer main, by state/territory	286
Table W 1.13	Stock of infrastructure—number of recycled water treatment plants, by state/territory	286
Table W 1.14	Infrastructure quality—average number of sewer main breaks and chokes per 100 kilometres of sewer main, by state/territory	287
Table W 1.15a	Stock of infrastructure—length of rural water supply and drainage networks, by asset type—New South Wales	287
Table W 1.15b	Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Victoria	287
Table W 1.15c	Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Queensland	288
Table W 1.15d	Stock of infrastructure—length of rural water supply and drainage networks, by asset type—South Australia	288
Table W 1.15e	Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Western Australia	288
Table W 1.15f	Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Australia	289
Table W 1.16	Stock of infrastructure—value of rural water supply and drainage networks, by state/territory—written down replacement cost of fixed assets	289
Table W 2.1	Inputs to water supply—total rainfall on Australian land, by state/territory	291
Table W 2.2	Inputs to urban water supply—volume of water sourced from surface water, by state/territory	291

Table W 2.3	Inputs to urban water supply—volume of water sourced from groundwater, by state/territory.....	292
Table W 2.4	Inputs to urban water supply—volume of water sourced from desalination, by state/territory.....	292
Table W 2.5	Inputs to urban water supply—volume of water sourced from recycling, by state/territory.....	292
Table W 2.6a	Urban water treatment—volume of residential sewage, non-residential sewage and non-trade waste collected, by state/territory.....	293
Table W 2.6b	Urban water treatment—volume of trade waste collected, by state/territory.....	293
Table W 2.6c	Urban water treatment—volume of total sewage collected, by state/territory.....	293
Table W 2.7	Urban water prices—consumer price index, water and sewerage services, index numbers by capital city.....	294
Table W 2.8	Inputs to rural water supply—power consumed to provide rural water distribution services, by state/territory.....	294
Table W 2.9a	Inputs to rural water supply—supply network intake volume for surface water source, by state/territory.....	294
Table W 2.9b	Inputs to rural water supply—supply network intake volume for groundwater source, by state/territory.....	295
Table W 2.9c	Inputs to rural water supply—supply network intake volume for treated waste water, by state/territory.....	295
Table W 2.9d	Inputs to rural water supply—supply network intake volume for other sources, by state/territory.....	295
Table W 2.9e	Inputs to rural water supply—total supply network intake volume, by state/territory.....	295
Table W 2.10a	Rural water markets—entitlements on issue, by state/territory.....	296
Table W 2.10b	Rural water markets—total entitlement trade, by state/territory.....	296
Table W 2.10c	Rural water markets—value of market turnover for water entitlements, by state/territory.....	296
Table W 2.10d	Rural water markets—value of market turnover for water allocations, by state/territory.....	296
Table W 3.1	Urban water supply—Australian population receiving water supply services, by state/territory.....	297
Table W 3.2a	Urban water supply—number of residential properties connected to the urban water supply network, by state/territory.....	297

Table W 3.2b	Urban water supply—number of non-residential properties connected to the urban water supply network, by state/territory	297
Table W 3.2c	Urban water supply—total number of properties connected to the urban water supply network, by state/territory	298
Table W 3.3a	Urban water supply—volume of urban water supplied to residential properties, by state/territory	298
Table W 3.3b	Urban water supply—volume of urban water supplied to commercial, municipal, and industrial properties, by state/territory	298
Table W 3.3c	Urban water supply—volume of urban water supplied for other uses, by state/territory	299
Table W 3.3d	Urban water supply—total volume of urban water supplied, by state/territory	299
Table W 3.4	Urban water supply—Australian population receiving sewerage services, by state/territory	299
Table W 3.5a	Urban water treatment—number of residential properties connected to sewerage services, by state/territory	300
Table W 3.5b	Urban water treatment—number of non-residential properties connected to sewerage services, by state/territory	300
Table W 3.5c	Urban water treatment—total number of properties connected to sewerage services, by state/territory	300
Table W 3.6a	Urban water treatment—volume of recycled water supplied to residential properties, by state/territory	301
Table W 3.6b	Urban water treatment—volume of recycled water supplied to commercial, municipal, and industrial properties, by state/territory	301
Table W 3.6c	Urban water treatment—volume of recycled water supplied for agricultural uses, by state/territory	301
Table W 3.6d	Urban water treatment—volume of recycled water supplied for on-site use, by state/territory	302
Table W 3.6e	Urban water treatment—volume of recycled water supplied for other uses, by state/territory	302
Table W 3.6f	Urban water treatment—total volume of recycled water supplied, by state/territory	302
Table W 3.7	Urban water treatment—percentage of effluent recycled, by state/territory	303
Table W 3.8	Rural water use—volume of rural water used at customer service points, by state/territory	303

Table W 3.9a	Rural water use—water consumption by agricultural activity, by State or Territory—irrigation water	303
Table W 3.9b	Rural water use—water consumption by agricultural activity, by State or Territory—other water use.....	304
Table W 3.9c	Rural water use—water consumption by agricultural activity, by State or Territory—total.....	304
Table W 3.10a	Rural water use—area of irrigated crops and pastures, by agricultural activity—New South Wales	305
Table W 3.10b	Rural water use—area of irrigated crops and pastures, by agricultural activity—Victoria.....	305
Table W 3.10c	Rural water use—area of irrigated crops and pastures, by agricultural activity—Queensland.....	306
Table W 3.10d	Rural water use—area of irrigated crops and pastures, by agricultural activity—South Australia	306
Table W 3.10e	Rural water use—area of irrigated crops and pastures, by agricultural activity—Western Australia.....	307
Table W 3.10f	Rural water use—area of irrigated crops and pastures, by agricultural activity—Tasmania.....	307
Table W 3.10g	Rural water use—area of irrigated crops and pastures, by agricultural activity—Northern Territory	308
Table W 3.10h	Rural water use—area of irrigated crops and pastures, by agricultural activity—Australia	308
Table W 3.11a	Rural water use—volume of irrigation water applied, by agricultural activity—New South Wales	309
Table W 3.11b	Rural water use—volume of irrigation water applied, by agricultural activity—Victoria	309
Table W 3.11c	Rural water use—volume of irrigation water applied, by agricultural activity—Queensland.....	310
Table W 3.11d	Rural water use—volume of irrigation water applied, by agricultural activity—South Australia	310
Table W 3.11e	Rural water use—volume of irrigation water applied, by agricultural activity—Western Australia.....	311
Table W 3.11f	Rural water use—volume of irrigation water applied, by agricultural activity—Tasmania.....	311
Table W 3.11g	Rural water use—volume of irrigation water applied, by agricultural activity—Northern Territory	312

Table W 3.11h	Rural water use—volume of irrigation water applied, by agricultural activity—Australia	312
Table W 3.12a	Rural water use—application rate for irrigation water, by agricultural activity—New South Wales	313
Table W 3.12b	Rural water use—application rate for irrigation water, by agricultural activity—Victoria	313
Table W 3.12c	Rural water use—application rate for irrigation water, by agricultural activity—Queensland.....	314
Table W 3.12d	Rural water use—application rate for irrigation water, by agricultural activity—South Australia.....	314
Table W 3.12e	Rural water use—application rate for irrigation water, by agricultural activity—Western Australia.....	315
Table W 3.12f	Rural water use—application rate for irrigation water, by agricultural activity—Tasmania.....	315
Table W 3.12g	Rural water use—application rate for irrigation water, by agricultural activity—Northern Territory	316
Table W 3.12h	Rural water use—application rate for irrigation water, by agricultural activity—Australia	316
Table W 3.13a	Rural water use—area irrigated, by irrigation method— New South Wales	317
Table W 3.13b	Rural water use—area irrigated, by irrigation method—Victoria.....	317
Table W 3.13c	Rural water use—area irrigated, by irrigation method—Queensland	318
Table W 3.13d	Rural water use—area irrigated, by irrigation method—South Australia.....	318
Table W 3.13e	Rural water use—area irrigated, by irrigation method— Western Australia.....	319
Table W 3.13f	Rural water use—area irrigated, by irrigation method—Tasmania.....	319
Table W 3.13g	Rural water use—area irrigated, by irrigation method— Northern Territory	320
Table W 3.13h	Rural water use—area irrigated, by irrigation method—Australia.....	320
Table W 3.14a	Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—New South Wales.....	321
Table W 3.14b	Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Victoria.....	321
Table W 3.14c	Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Queensland.....	322

Table W 3.14d	Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Western Australia	322
Table W 3.14e	Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—South Australia	323
Table W 3.14f	Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Tasmania.....	323
Table W 3.14g	Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Northern Territory.....	324
Table W 3.14h	Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Australia.....	324
Table W 4.1	Water quality—percentage of population in zones where compliance with microbiological standards was achieved, by state/territory.....	325
Table W 4.2a	Water quality—number of urban zones where microbiological compliance was achieved, by state/territory.....	325
Table W 4.2b	Water quality—number of urban zones where microbiological compliance was measured, by state/territory	325
Table W 4.2c	Water quality—percentage of urban zones where microbiological compliance achieved, by state/territory.....	326
Table W 4.3a	Water quality—number of urban zones where chemical compliance was achieved, by state/territory	326
Table W 4.3b	Water quality—number of urban zones where chemical compliance was measured, by state/territory	326
Table W 4.3c	Water quality—percentage of urban zones where chemical compliance achieved, by state/territory	327
Table W 4.4	Environmental pollution—sewer overflows to the environment per 100 kilometres of main, by state/territory.....	327
Table W 4.5a	Urban water supply emissions—greenhouse gas (carbon dioxide equivalent) emissions from urban water supply, by state/territory	327
Table W 4.5b	Urban water treatment emissions—greenhouse gas (carbon dioxide equivalent) emissions from sewerage, by state/territory	328
Table W 4.5c	Water emissions—greenhouse gas (carbon dioxide equivalent) emissions from other activities, by state/territory	328
Table W 4.6	Rural water supply emissions—greenhouse gas (carbon dioxide equivalent) emissions from rural water supply, by state/territory.....	328
Table W 4.7a	Energy emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from industrial wastewater.....	329

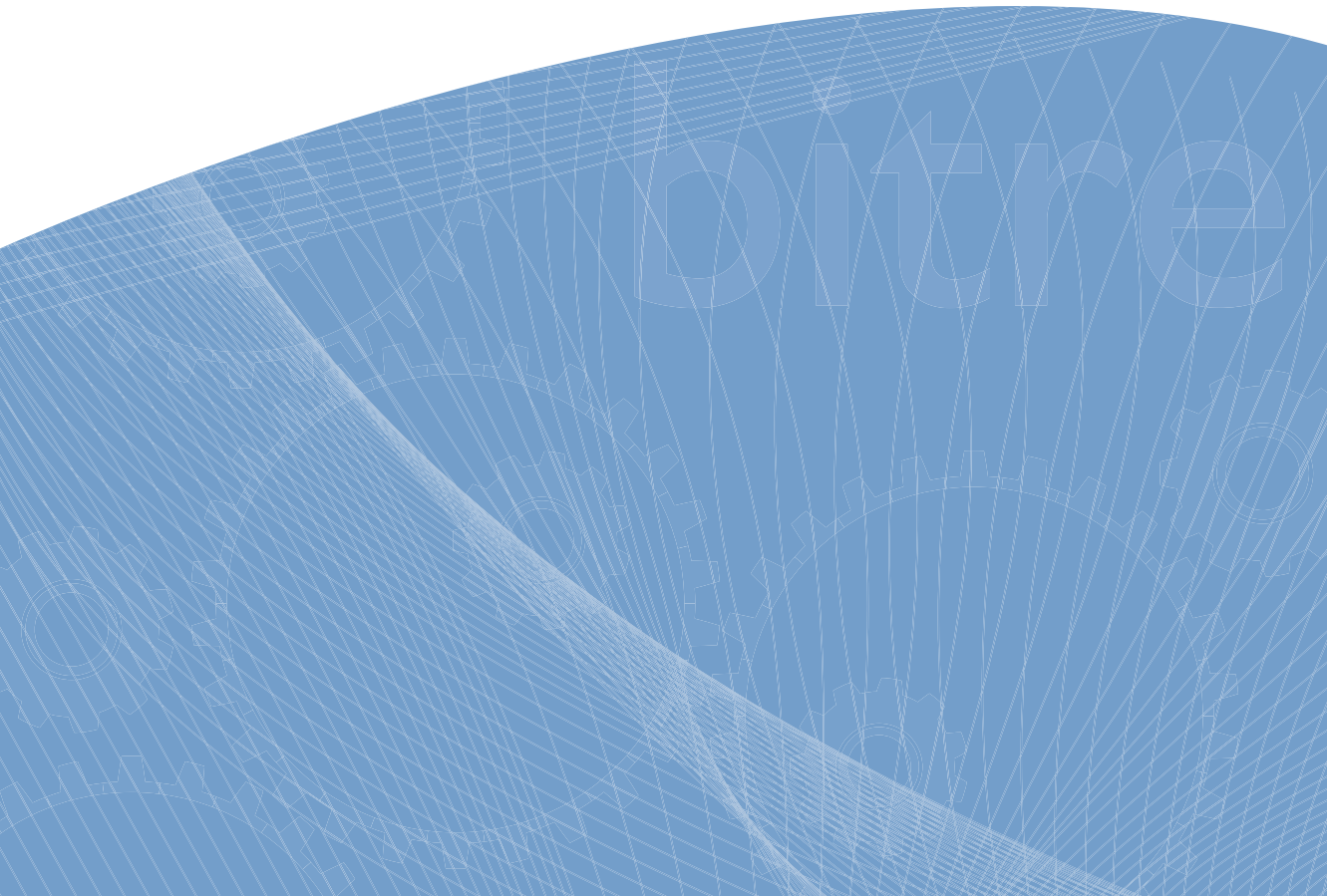
Table W 4.7b Water emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from domestic and commercial wastewater; sewer population329

Table W 4.7c Water emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from domestic and commercial wastewater; unsewered population.....330

List of Figures

Figure I 1	Australia's key economic infrastructure at 30 June 2012 and 30 June 2013	10
Figure I 2	Infrastructure construction activity, adjusted by chain volume index.....	11
Figure I 3	Infrastructure construction activity, by sector, adjusted by chain volume index.....	12
Figure T 1a	Australia's domestic transport, 2012–13.....	32
Figure T 1b	Australia's international transport, 2012–13	32
Figure T 2	Australian domestic freight task, by mode of transport	33
Figure T 3	Australian domestic passenger task, by mode of transport.....	34
Figure T 4	Map of national road network.....	75
Figure T 5	Australia's railways, by network manager.....	93
Figure T 6	Australia's top 40 airports in 2012–13, passengers.....	99
Figure T 7	Principal Australian ports, by commodity	107
Figure E 1	Australian energy flows in petajoules, 2012–13.....	160
Figure E 2	Australian electricity consumption, by broad industry.....	161
Figure E 3	Australian gas consumption, by broad industry.....	162
Figure C 1	Telecommunications networks: traditional and next generation	254
Figure C 2	Communications subscribers—number of subscribers, by communications medium	256
Figure W 1	Water: Australian sources and uses, 2012–13	274
Figure W 2	Total volume of rainfall in Australia.....	275
Figure W 3	Water infrastructure engineering construction, adjusted by chain volume index.....	276

Introduction



Introduction

The goal of the Australian Infrastructure Statistics Yearbook is to provide a comprehensive, coherent summary of major economic infrastructure in Australia and its use. A framework of time series statistics was developed with this end in mind. A range of datasets of varying quality are available. Datasets that meet BITRE requirements for accuracy and reliability are included; however, there are a number of areas of the framework where suitable datasets are not currently compiled. These areas of unmet statistical demand are highlighted in the section headed For Further Development, at the end of this introductory chapter.

The framework

Part I of the Yearbook provides a summary of major economic infrastructure and several statistical measures likely to influence investment in, and use of, major economic infrastructure. The rest of the Yearbook is divided into four sections, 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.

To enable comparison and aggregation across infrastructure types, the Yearbook uses a common statistical framework across each of the main infrastructure parts. Where data are available, statistics are provided using common measures.

The statistical framework 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, passengers, road, rail, aviation and maritime.
- Impacts. Measures of the external impact of activities. These impacts include safety and security issues as well as greenhouse gas emissions and other pollution.

Part I *Infrastructure and the economy*

Appropriately prioritised infrastructure projects should enhance economic efficiency and improve productivity.

Chapter 1 of Part I provides several key macroeconomic indicators 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 of Part I summarises infrastructure construction activity across the four forms of major economic infrastructure covered in the Yearbook.

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 framework 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 in the framework: 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 4–7: Road, Rail, Aviation, Shipping. These chapters focus on the four main motorised modes of transport: 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 framework also includes estimates for the size and characteristics of the various modal vehicle fleets.

Chapters 8 (Safety) and Chapter 9 (Energy and the Environment) complete the statistical framework for transport infrastructure with a summary of some key impacts of transport activity.

Chapter 8 presents 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. This chapter provides a number of measures of energy infrastructure construction as well as measures of the length of electricity networks, capacity of electricity generation plants and reliability of electricity supply.

Chapter 2: Inputs to energy supply. Chapter 2 provides a summary of inputs to energy infrastructure; including measures of mineral energy reserves, and energy used in the generation of electricity and natural gas distribution.

Chapter 3: Energy production and usage. The first few tables in Chapter 3 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, detailed 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 4: Energy safety and emissions. Measures of the external impacts of energy usage are provided for serious injuries and greenhouse gas emissions. The electricity generation industry plays a unique role in greenhouse gas statistics within the Kyoto framework: Greenhouse gas emissions from the electricity generation industry represent all 'scope 2' ('upstream' or indirect) emissions for other industries (see Table E 4.2).

Part C Communication

The Yearbook focuses on key networks that enable economic activity. Telecommunications networks are a vital part of Australian infrastructure; however, the telecommunications industry is becoming increasingly integrated with the radiocommunications and broadcasting industries. At the same time, rapid advances in technology have enabled a dramatic expansion in the capacity of existing physical infrastructure in the communications industry.

To provide a meaningful summary of Australian communications infrastructure, Part C includes measures of both physical infrastructure (see Chapter 1) and technology investments that enhance infrastructure capacity (see Chapter 2). Chapter 3 provides estimates for fixed and mobile telephone and internet subscribers and internet service providers.

Chapter 4: Price and activity. This chapter provides estimates of internet usage and internet commerce, as well as telecommunication prices facing residential customers in each capital city, indicative broadband subscription prices and domain name registration statistics.

Chapter 5: Communication security provides statistics for the number of telephone numbers registered on the do not call register and the number of emergency calls to 000 and 112.

Part W Water

A significant number of tables presented in Part W:Water were compiled by BITRE using data published by the National Water Commission (NWC) and their state and territory partners in two annual National Performance Reports (NPR); one for urban utilities and the other for rural water service providers.

The urban and rural NPRs provide comprehensive data on water supply and wastewater treatment activity for major water utilities (above 10,000 properties) in Australia using a common set of measures. While the data provided in the NPRs are comprehensive, records for a number of utilities are incomplete, so simply aggregating the published data to create Yearbook tables would underestimate state and national totals. To address this issue, prior to aggregating NPR data and where possible, BITRE filled in missing records by researching utilities' annual reports, council reports, state health authorities' water records or used statistical imputation techniques. For 2012–13, the urban NWC based sections of the yearbook include data from 82 urban major water utilities and the rural NWC based sections include data from 14 rural water service providers.

Chapter 1:Water infrastructure. This chapter provides measures of the construction of water infrastructure that are consistent with construction measures used in earlier parts of the Yearbook. In addition, there are several stock measures (including the current value of water infrastructure assets, the capacity of major water storage dams, the current holdings of major water storage dams, and the length of water distribution networks) and infrastructure quality measures for water supply, wastewater treatment and rural water supply networks.

Chapter 2: Water inputs. Table 2.1 provides volume estimates for total Australian rainfall each calendar year. The remaining tables in Chapter 2 provide measures of:

- sources of water used in urban and rural water distribution networks and sources of wastewater for wastewater treatment networks
- water supply prices facing residential customers in each capital city
- power consumed to provide rural water distribution
- trading activity in rural water markets.

Chapter 3: Supply and use. Chapter 3 provides a summary of annual 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 a summary of water consumed by agriculture, including water sourced from rural water supply networks as well as other sources.

Chapter 4: Health and emissions. Chapter 4 provides measures of water quality for urban water supply, sewer overflows to the environment and greenhouse gas emissions from urban and rural water supply and wastewater treatment.

For further development

The preparation of a publication such as this highlights the differences between the conceptual framework and the reality of the infrastructure statistics that are currently available. There are several areas of the framework where current statistical coverage is sparse and further compilation work is required to present a complete statistical picture of Australian infrastructure activity.

Publication layout

Diagrams are provided at the commencement of each Part which summarise statistics presented in the tables that follow. These diagrams highlight the areas of the conceptual framework where statistics are unknown or not available.

Throughout this publication, End Notes are numbered consecutively within each Part. 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.

PART I: Infrastructure and the economy

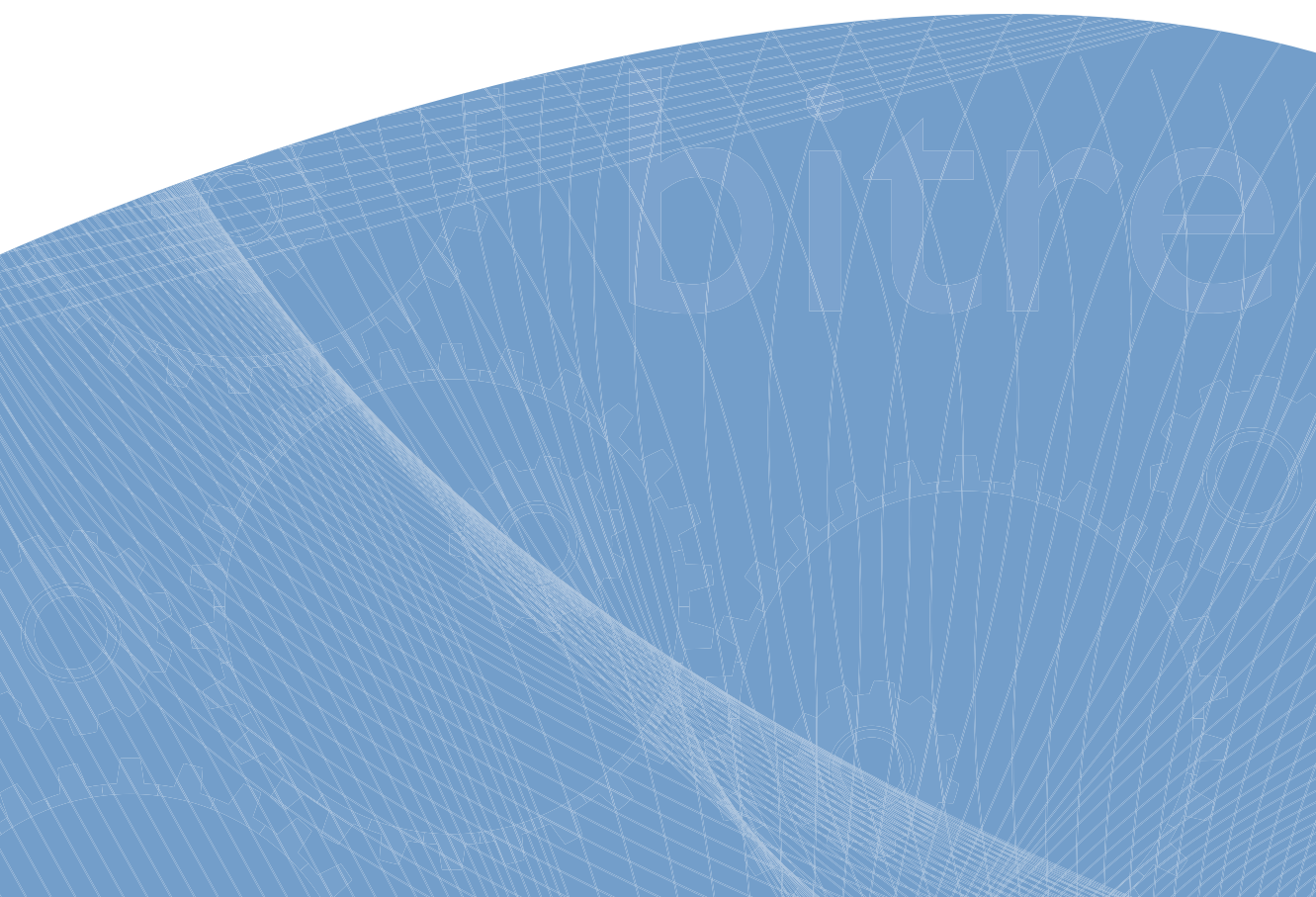
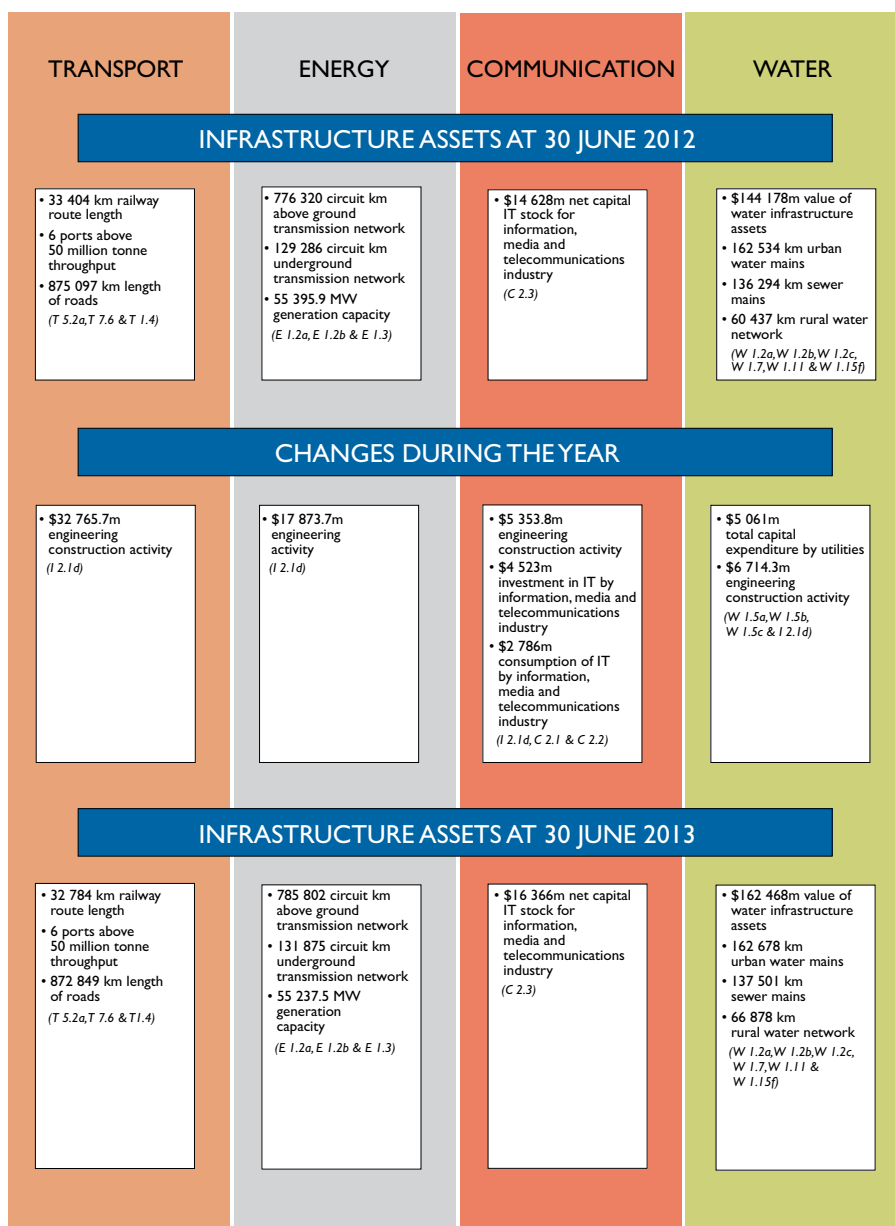


Figure I I Australia's key economic infrastructure at 30 June 2012 and 30 June 2013



Notes:

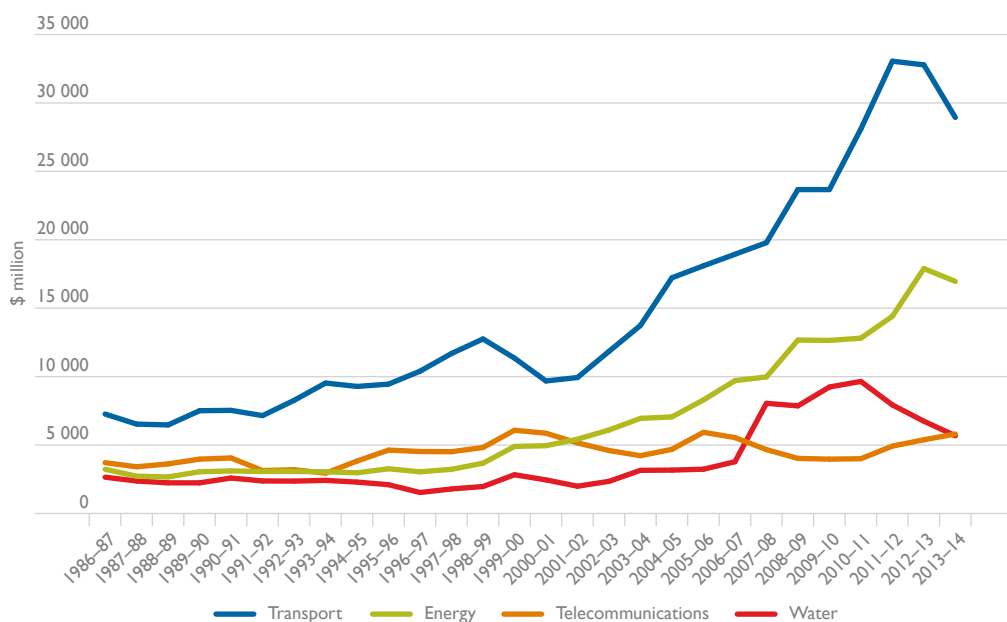
1. Railway route length refers to lines that are operational. The reduction in route length is primarily due to the closure of some grain lines in Western Australia. Small changes also occurred in other states, primarily due to the mothballing of some regional lines. There are ongoing discussions among interested parties to re-open a number of grain lines in Western Australia as well as the Demondrille—Greenthorpe/Blayney lines in NSW.
2. 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, a further 1,900 kilometres in 2012, and another 3,500 kilometres in 2013. (A cumulative effect of approximately 6,500 kilometres in the period 2010–2013).
3. The value of water infrastructure assets for 2012–13 does not equal the 2011–12 value plus capital expenditure during 2012–13 financial year. This is due to several factors including the likely revaluing of water and sewerage infrastructure assets.

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.

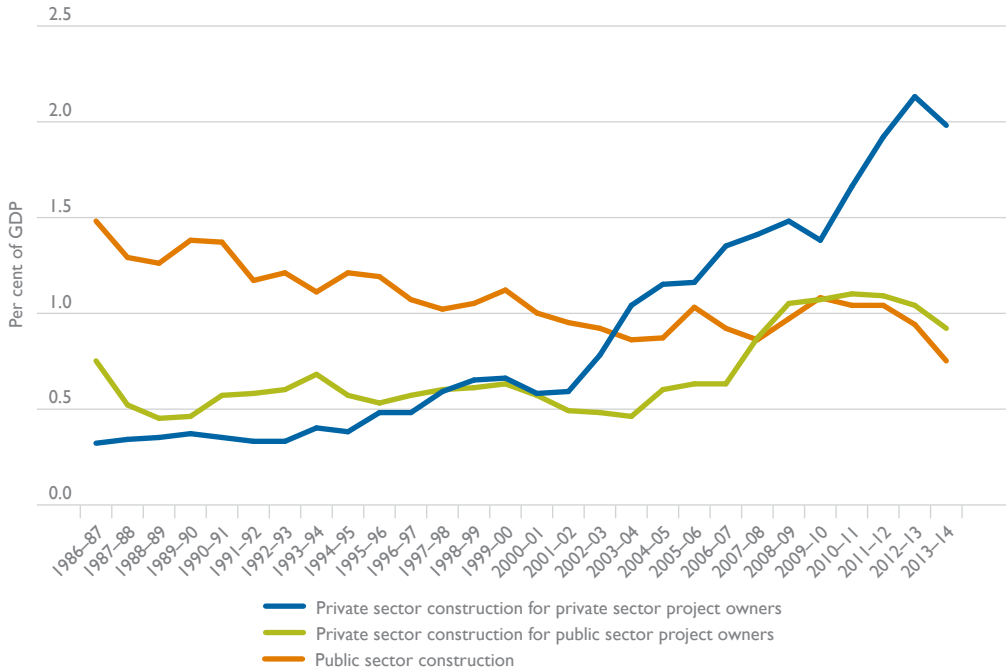
Figure I 2 Infrastructure construction activity, adjusted by chain volume index



Since 2001, Australian real infrastructure construction activity has increased strongly, mainly due to sharp increases in the construction of transport, water and energy infrastructure. Growth in transport infrastructure construction increased in 2009–10 to 2011–2012. However, the value of construction activity stabilised in 2012–13 and decreased in 2013–14.

Water infrastructure construction expenditure increased sharply in 2007–08 and again in 2009–10, reflecting work conducted on the South East Queensland Water Grid and the Victorian desalination plant. With the completion of these projects, expenditure on water infrastructure is decreasing.

Figure I 3 Infrastructure construction activity, by sector, adjusted by chain volume index



Since 2000, private sector involvement in the construction of infrastructure has increased sharply: initially in the form of private sector-owned projects, then from 2005 in the form of private sector construction of public sector projects. Public sector construction activity gradually decreased between 1987 and 2007, stabilising at approximately 1 per cent of GDP before decreasing to 0.75 per cent in 2013–14.

CHAPTER I

The economy

Table I 1.1a Australian gross domestic product, major infrastructure industries

Financial year	Chain volume measures ¹						Major infrastructure industries as percentage of GDP
	Gross value added, at basic prices ²					Gross Domestic Product	
	Transport, postal and warehousing	Energy		Information media and telecommunications	Water Supply and waste services		
		Electricity	Gas				
				\$ million			%
1974–75	17 644	7 424	88	4 931	7 558	466 356	8.1
1975–76	17 552	7 701	145	4 650	7 675	478 421	7.9
1976–77	19 006	8 333	208	4 861	7 935	495 683	8.1
1977–78	21 407	8 798	256	5 163	7 351	500 132	8.6
1978–79	21 750	9 322	300	5 582	7 558	520 406	8.6
1979–80	22 398	9 826	363	5 999	8 187	536 285	8.7
1980–81	23 770	10 470	380	6 641	8 223	554 287	8.9
1981–82	24 131	10 917	580	7 167	8 300	572 709	8.9
1982–83	23 252	11 094	577	7 484	8 791	559 917	9.1
1983–84	24 425	11 725	635	7 930	8 779	585 845	9.1
1984–85	26 409	12 444	710	8 545	9 229	616 598	9.3
1985–86	28 010	13 082	698	9 272	9 382	640 847	9.4
1986–87	28 529	13 637	685	9 976	9 328	656 563	9.5
1987–88	29 786	14 452	735	10 853	9 564	693 165	9.4
1988–89	31 141	15 232	785	11 746	9 798	720 621	9.5
1989–90	31 925	16 005	841	13 129	10 267	750 523	9.6
1990–91	32 143	16 304	797	13 852	10 740	749 597	9.9
1991–92	32 850	16 681	782	14 851	10 619	751 978	10.1
1992–93	33 071	17 188	791	16 587	10 533	783 076	10.0
1993–94	34 874	17 795	836	18 119	10 851	814 696	10.1
1994–95	36 980	18 194	894	20 261	11 194	845 106	10.4
1995–96	39 948	18 482	902	21 421	11 163	878 445	10.5
1996–97	41 618	18 416	906	23 007	11 094	913 099	10.4
1997–98	42 565	19 111	942	24 890	11 451	953 564	10.4
1998–99	43 813	19 439	1 004	26 735	11 730	1 001 271	10.3
1999–00	45 481	20 011	1 045	27 583	11 702	1 040 086	10.2
2000–01	47 267	20 307	1 077	28 610	12 022	1 060 101	10.3
2001–02	48 794	20 047	1 090	29 445	12 520	1 101 112	10.2
2002–03	51 808	20 228	1 119	31 331	12 628	1 135 013	10.3
2003–04	53 653	20 618	1 140	32 847	12 278	1 182 208	10.2
2004–05	56 964	20 926	1 133	33 736	12 275	1 220 250	10.2
2005–06	58 708	21 645	1 138	35 091	12 080	1 256 661	10.2
2006–07	62 283	21 787	1 205	37 378	12 225	1 304 025	10.3
2007–08	65 712	22 331	1 240	39 600	11 668	1 352 243	10.4
2008–09	65 151	23 421	1 247	40 047	12 042	1 375 809	10.3
2009–10	66 304	23 438	1 249	40 605	12 383	1 402 813	10.3
2010–11	68 436	23 472	1 364	41 943	13 206	1 434 226	10.3
2011–12	71 090	22 941	1 303	42 129	13 764	1 486 071	10.2
2012–13	72 998	22 699	1 401	41 223	13 541	1 525 283	10.0
2013–14	72 405	22 215	1 392	42 106	12 851	1 569 477	9.6

^{1,2} See end notes.

Source: ABS (2014b).

Table I I.1b Australian gross domestic product, transport industry

Financial year	Chain volume measures ¹					Gross Domestic Product	Transport industry as percentage of GDP
	Gross value added, at basic prices ²						
	Transport			Transport, postal and storage services	Total transport, postal and warehousing		
	Road	Air and space	Rail, pipeline and other transport ³				
	\$ million						%
1974–75	4 997	912	3 599	10 055	17 644	466 356	3.8
1975–76	4 921	956	3 608	9 700	17 552	478 421	3.7
1976–77	5 547	968	3 748	10 157	19 006	495 683	3.8
1977–78	6 548	1 060	3 839	10 606	21 407	500 132	4.3
1978–79	6 492	1 174	3 795	10 933	21 750	520 406	4.2
1979–80	6 383	1 293	4 180	11 790	22 398	536 285	4.2
1980–81	7 157	1 269	4 244	11 653	23 770	554 287	4.3
1981–82	7 316	1 302	4 299	11 418	24 131	572 709	4.2
1982–83	7 160	1 237	4 029	10 662	23 252	559 917	4.2
1983–84	7 347	1 302	4 370	11 945	24 425	585 845	4.2
1984–85	7 893	1 404	4 922	13 028	26 409	616 598	4.3
1985–86	8 335	1 526	5 260	13 348	28 010	640 847	4.4
1986–87	8 273	1 686	5 245	13 680	28 529	656 563	4.3
1987–88	8 767	1 887	5 345	14 071	29 786	693 165	4.3
1988–89	9 426	2 002	5 430	14 486	31 141	720 621	4.3
1989–90	9 866	1 735	5 768	14 857	31 925	750 523	4.3
1990–91	9 597	2 016	5 764	14 993	32 143	749 597	4.3
1991–92	9 906	2 349	5 779	14 914	32 850	751 978	4.4
1992–93	9 687	2 594	5 956	14 918	33 071	783 076	4.2
1993–94	10 160	2 839	6 202	15 731	34 874	814 696	4.3
1994–95	11 149	3 086	6 177	16 625	36 980	845 106	4.4
1995–96	12 359	3 299	6 602	17 792	39 948	878 445	4.5
1996–97	12 926	3 510	6 793	18 461	41 618	913 099	4.6
1997–98	13 452	3 503	6 775	18 965	42 565	953 564	4.5
1998–99	13 943	3 572	6 884	19 563	43 813	1 001 271	4.4
1999–00	14 617	3 770	7 118	20 109	45 481	1 040 086	4.4
2000–01	15 075	4 074	7 195	20 929	47 267	1 060 101	4.5
2001–02	15 956	3 823	7 497	21 724	48 794	1 101 112	4.4
2002–03	17 114	4 327	7 902	22 574	51 808	1 135 013	4.6
2003–04	18 359	4 598	8 064	22 808	53 653	1 182 208	4.5
2004–05	19 511	5 094	8 274	24 163	56 964	1 220 250	4.7
2005–06	20 465	5 379	8 356	24 602	58 708	1 256 661	4.7
2006–07	22 643	5 860	8 359	25 655	62 283	1 304 025	4.8
2007–08	24 076	6 056	8 967	26 942	65 712	1 352 243	4.9
2008–09	22 454	5 835	9 246	27 783	65 151	1 375 809	4.7
2009–10	22 968	5 820	9 277	28 422	66 304	1 402 813	4.7
2010–11	22 511	6 263	9 669	30 042	68 436	1 434 226	4.8
2011–12	22 493	6 533	10 093	31 971	71 090	1 486 071	4.8
2012–13	22 398	6 543	10 500	33 557	72 998	1 525 283	4.8
2013–14	23 267	6 531	10 409	32 198	72 405	1 569 477	4.6

^{1,2,3} See end notes.

Source: ABS (2014b).

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

August reference month	Transport and Storage						Total Employment					Transport and storage as % of total employ- ment
	Transport					Postal and courier services	Transport support services	Ware- housing and storage services	Total	Total Aust employ- ment		
	Road	Rail	Water	Air and space	Other							
	thousands											%
1985	159.1	74.1	5.6	33.1	14.0	73.4	49.4	8.6	417.2	6 675.5	6.2	
1986 ⁴	171.8	73.3	6.1	35.1	14.9	74.4	49.5	11.2	436.2	6 918.5	6.3	
1987	170.0	65.7	5.7	32.5	12.7	69.5	44.6	7.8	408.6	7 092.3	5.8	
1988	171.8	60.5	5.2	34.4	13.6	68.5	46.1	9.1	409.1	7 353.3	5.6	
1989	185.5	59.2	6.3	43.9	12.6	71.2	48.3	11.5	438.6	7 715.3	5.7	
1990	193.4	48.7	6.6	40.0	10.9	73.9	42.6	17.0	433.2	7 808.0	5.5	
1991	186.3	54.6	7.7	38.8	10.8	67.9	41.8	14.5	422.4	7 629.3	5.5	
1992	185.5	42.4	5.4	35.9	10.1	60.5	37.5	13.8	391.0	7 617.5	5.1	
1993	172.2	48.1	^a 3.7	35.7	9.1	60.0	40.5	16.5	385.8	7 620.9	5.1	
1994	177.0	44.0	7.1	36.5	14.4	56.4	41.1	19.2	395.7	7 885.7	5.0	
1995	185.5	39.9	7.3	40.5	13.5	63.5	41.1	15.2	406.5	8 218.7	4.9	
1996	186.4	40.9	10.2	48.1	17.2	69.0	36.8	21.0	429.7	8 310.3	5.2	
1997	196.3	38.4	7.5	46.5	14.5	74.5	38.6	15.9	432.1	8 306.6	5.2	
1998	192.9	30.4	8.0	46.9	12.4	79.1	36.9	20.0	426.6	8 555.6	5.0	
1999	207.8	27.8	8.5	45.1	11.4	73.9	45.7	25.4	445.6	8 692.1	5.1	
2000	207.2	30.4	9.7	56.7	8.2	82.7	35.7	30.6	463.8	8 990.3	5.2	
2001	216.0	28.8	11.2	53.8	8.2	81.9	38.0	27.1	466.8	9 043.9	5.2	
2002	205.9	28.4	8.4	46.0	7.1	79.4	36.7	28.0	442.4	9 230.0	4.8	
2003	219.4	32.9	8.7	48.7	8.3	78.8	39.9	27.3	464.8	9 415.2	4.9	
2004	222.0	29.9	13.7	40.9	9.3	82.9	40.1	36.8	493.9	9 564.3	5.2	
2005	217.0	30.5	8.8	50.8	7.5	87.3	42.7	41.7	501.1	9 990.1	5.0	
2006	232.9	33.3	12.4	45.9	7.8	76.1	45.8	43.9	508.6	10 242.6	5.0	
2007	236.7	30.8	12.9	47.1	14.1	88.9	45.2	48.7	541.6	10 547.3	5.1	
2008	230.4	49.0	9.4	49.3	9.0	98.0	56.6	57.3	571.0	10 848.7	5.3	
2009	235.0	53.1	8.4	50.7	11.8	99.2	71.6	25.2	578.7	10 858.0	5.3	
2010	219.0	47.3	7.2	51.9	9.4	93.9	79.6	43.3	567.5	11 137.1	5.1	
2011	233.7	46.0	9.2	56.9	10.9	89.4	67.7	48.0	576.5	11 130.7	5.2	
2012	222.3	46.6	8.2	49.1	9.2	76.7	64.7	53.5	548.8	11 259.8	4.9	
2013	220.7	45.1	11.8	54.4	^a 5.5	97.5	82.9	51.4	583.5	11 369.0	5.1	
2014	253.5	41.4	8.7	57.5	^a 6.9	81.8	82.4	49.7	598.4	11 622.2	5.1	

^a Subject to sampling variability too high for most practical purposes.

⁴ See end notes.

Source: ABS (2014i).

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

August reference month	Energy Total Employment					Total	Total Aust employ- ment	Energy as % of total employ- ment
	Mining		Petroleum and coal product manufacturing	Electricity supply	Gas supply			
	Coal mining	Oil and gas extraction						
	thousands							%
1985	37.2	^a 2.3	6.7	81.4	10.5	138.0	6 675.5	2.1
1986 ⁴	32.2	^a 1.5	6.0	84.2	9.6	133.5	6 918.5	1.9
1987	39.2	^a 1.7	6.2	72.8	11.2	131.0	7 092.3	1.8
1988	33.2	^a 3.8	5.1	73.8	8.4	124.3	7 353.3	1.7
1989	28.8	^a 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	33.2	5.2	6.6	62.8	7.2	115.1	7 629.3	1.5
1992	26.2	6.7	9.1	62.3	8.3	112.7	7 617.5	1.5
1993	29.5	^a 3.1	6.4	54.9	7.8	101.7	7 620.9	1.3
1994	22.6	^a 2.7	7.6	55.6	8.1	96.7	7 885.7	1.2
1995	24.1	4.0	5.2	49.3	7.6	90.1	8 218.7	1.1
1996	20.6	^a 2.6	7.4	38.8	7.6	77.0	8 310.3	0.9
1997	22.8	^a 3.5	8.9	37.6	6.4	79.3	8 306.6	1.0
1998	19.6	5.9	6.6	37.6	6.0	75.8	8 555.6	0.9
1999	18.6	^a 4.0	6.3	38.3	5.6	72.7	8 692.1	0.8
2000	16.4	6.0	9.9	36.5	2.9 ^a	71.6	8 990.3	0.8
2001	22.1	^a 4.0	13.8	44.9	5.0	89.8	9 043.9	1.0
2002	17.5	^a 4.8	13.2	37.4	6.0	78.9	9 230.0	0.9
2003	20.3	5.4	6.2	58.0	5.1	95.0	9 415.2	1.0
2004	18.5	5.5	8.2	41.2	^a 4.0	77.3	9 564.3	0.8
2005	28.0	7.3	7.8	45.9	7.2	96.3	9 990.1	1.0
2006	29.2	8.7	10.0	36.5	6.7	91.1	10 242.6	0.9
2007	25.0	10.6	7.0	40.6	10.3	93.5	10 547.3	0.9
2008	35.7	14.3	5.7 ^a	46.4	10.6	112.7	10 848.7	1.0
2009	41.6	11.7	6.0 ^a	61.1	9.9	130.3	10 858.0	1.2
2010	44.7	15.6	6.6	68.8	7.4	143.1	11 137.1	1.3
2011	51.0	14.1	11.0	60.4	9.7	146.3	11 130.7	1.3
2012	47.0	16.9	11.8	70.8	11.0	157.4	11 259.8	1.4
2013	52.3	19.9	^a 6.9	58.7	22.7	160.6	11 369.0	1.4
2014	39.1	25.2	^a 6.5	64.2	15.7	150.9	11 622.2	1.3

^a Subject to sampling variability too high for most practical purposes.⁴ See end notes.

Source: ABS (2014i).

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

August reference month	Communication Total Employment			Total Aust employment	Communication services as % of total employment
	Telecommunication services	Internet service providers, web search portals and data processing services	Total		
	<i>thousands</i>				<i>%</i>
1985	79.0	7.6	86.6	6 675.5	1.3
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	69.8	7.8	77.6	7 629.3	1.0
1992	60.9	7.3	68.2	7 617.5	0.9
1993	60.5	7.3	67.9	7 620.9	0.9
1994	74.2	9.5	83.7	7 885.7	1.1
1995	79.8	11.0	90.9	8 218.7	1.1
1996	91.5	12.7	104.3	8 310.3	1.3
1997	75.3	13.0	88.3	8 306.6	1.1
1998	70.8	14.5	85.4	8 555.6	1.0
1999	73.3	14.2	87.5	8 692.1	1.0
2000	89.2	20.5	109.7	8 990.3	1.2
2001	86.4	19.5	106.0	9 043.9	1.2
2002	86.3	21.0	107.3	9 230.0	1.2
2003	93.6	20.7	114.3	9 415.2	1.2
2004	89.3	18.9	108.2	9 564.3	1.1
2005	96.8	20.0	116.8	9 990.1	1.2
2006	98.9	21.7	120.6	10 242.6	1.2
2007	97.4	23.4	120.8	10 547.3	1.1
2008	97.2	16.2	113.4	10 848.7	1.0
2009	85.5	^a 7.6	93.1	10 858.0	0.9
2010	90.5	8.1	98.7	11 137.1	0.9
2011	90.0	8.5	98.5	11 130.7	0.9
2012	102.1	7.6	109.7	11 259.8	1.0
2013	87.0	^a 6.0	93.0	11 369.0	0.8
2014	103.3	^a 7.7	111.0	11 622.2	1.0

^a Subject to sampling variability too high for most practical purposes.⁴ See end notes.

Source: ABS (2014i).

Table I 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 as % of total employment
		<i>thousands</i>	<i>%</i>
1985	46.8	6 675.5	0.7
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	32.6	7 629.3	0.4
1992	33.7	7 617.5	0.4
1993	32.1	7 620.9	0.4
1994	28.5	7 885.7	0.4
1995	27.7	8 218.7	0.3
1996	21.8	8 310.3	0.3
1997	22.0	8 306.6	0.3
1998	25.7	8 555.6	0.3
1999	22.8	8 692.1	0.3
2000	25.1	8 990.3	0.3
2001	20.7	9 043.9	0.2
2002	23.4	9 230.0	0.3
2003	18.9	9 415.2	0.2
2004	24.0	9 564.3	0.3
2005	26.5	9 990.1	0.3
2006	30.2	10 242.6	0.3
2007	25.7	10 547.3	0.2
2008	36.7	10 848.7	0.3
2009	28.2	10 858.0	0.3
2010	38.8	11 137.1	0.3
2011	32.5	11 130.7	0.3
2012	37.3	11 259.8	0.3
2013	29.2	11 369.0	0.3
2014	29.1	11 622.2	0.3

⁴ See end notes.

Source: ABS (2014i).

Table I 1.3a Australian average weekly earnings⁵, transport industry

May reference month	Road	Rail	Water	Air and space	Other transport	All industries
			\$			
1996	612.0	797.8	669.5	836.3	486.5	573.7
1998	642.6	842.2	1 061.3	1 019.5	^b 472.1	610.2
2000	643.3	940.9	1 094.2	1 088.9		652.8
2002	754.9	1 027.2	869.8	1 000.6		697.6
2004	782.0	1 147.7	^b 883.6	1 062.4		756.5
2006 ⁶	908.5	1 433.4	1 089.7	1 176.4		822.5
2008	971.1	1 374.7	1 404.0	1 312.1	1 104.1	915.3
2010	956.0	1 578.0	1 818.0	1 668.0	611.1	970.7
2012	1 030.2	1 808.1	1 536.2	1 616.4	^b 1 187.5	1 080.0

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

^{5,6} See end notes.

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

Source: ABS (2012c) and unpublished data.

Table I 1.3b Australian average weekly earnings⁵, energy industry

May reference month	Electricity supply	Gas supply	All industries
		\$	
1996	811.0	763.5	573.7
1998	956.7	833.7	610.2
2000	1 068.9	912.9	652.8
2002	1 136.8	1 093.9	697.6
2004	1 224.5	1 124.7	756.5
2006 ⁶	1 361.6	1 144.0	822.5
2008	1 519.9	1 804.4	915.3
2010	1 722.7	1 291.5	970.7
2012	1 910.5	2 049.4	1 080.0

^{5,6} See end notes.

Source: ABS (2012c) and unpublished data.

Table I 1.3c Australian average weekly earnings⁵, communication industry

May reference month	Telecommunication services	Radio and television services	Broadcasting (except internet)	All industries
		\$		
1996	806.7	694.5		573.7
1998	974.6	868.4		610.2
2000	1 063.1	994.8		652.8
2002	1 102.6	909.8		697.6
2004	1 106.2	963.3		756.5
2006 ⁶	1 221.3	1 189.7		822.5
2008	1 330.0		1 221.6	915.3
2010	1 431.6		1 348.0	970.7
2012	1 472.9		1 442.4	1 080.0

^{5,6} See end notes.

Source: ABS (2012c) and unpublished data.

Table I 1.3d Australian average weekly earnings,⁵ water industry

May reference month	Water supply, sewerage and drainage services	All industries
	\$	\$
1996	732.4	573.7
1998	807.7	610.2
2000	806.4	652.8
2002	1 022.4	697.6
2004	1 020.7	756.5
2006 ⁶	1 074.9	822.5
2008	1 130.7	915.3
2010	1 411.0	970.7
2012	1 584.6	1 080.0

^{5,6} See end notes.

Source: ABS (2012c) and unpublished data.

Table I 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	Stevedoring services	Port and water transport terminal operations	Other water transport support services		
base of each index: 2011–12 = 100										
1996–97		79.4				108.4				
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

Note: Data are not readily available for missing years.

Source: ABS (2014i).

Table I 1.4b Australian producer price indexes, communications industry

Financial year	Data processing and web hosting services	Electronic information storage services
	<i>base of each index 2011–12 = 100</i>	
1998–99		110.6
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

Note: Data are not readily available for missing years.

Source: ABS (2014l).

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

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT ^{7,8}
1970–71	2 977 300	2 515 400	891 100	850 700	711 800	153 100	37 100	160 800
1971–72	3 017 700	2 559 000	915 900	864 100	734 700	153 800	39 900	174 150
1972–73	3 040 800	2 597 200	941 800	877 800	751 700	155 500	42 800	185 100
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 ⁹	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 ¹⁰	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 ¹¹	4 676 118	4 252 458	2 193 316	1 278 600	1 904 858	216 921	132 321	375 183
2012–13	4 757 083	4 347 955	2 238 394	1 291 666	1 972 358	217 973	136 245	381 488

7,8,9,10,11

See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014m).

Table I 1.5b Australian population, by state/territory—rest of state^{11 12}

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT ^{7,8}
1970–71	1 748 203	1 085 952	960 385	349 414	342 034	244 973	48 635	
1971–72	1 777 406	1 102 254	982 578	350 528	347 317	246 508	52 181	
1972–73	1 801 098	1 110 453	1 010 151	350 675	349 341	247 587	54 327	
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 ⁹	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 ¹⁰	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 ¹¹	2 631 065	1 380 063	2 374 889	377 435	533 136	295 185	103 560	
2012–13	2 653 316	1 391 386	2 418 409	379 161	546 963	295 186	104 514	

7, 8, 9, 10, 11, 12

See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014m).

Table I 1.5c Australian population, by state/territory—total

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT ^{7,8}
1970–71	4 725 503	3 601 352	1 851 485	1 200 114	1 053 834	398 073	85 735	151 169
1971–72	4 795 106	3 661 254	1 898 478	1 214 628	1 082 017	400 308	92 081	159 792
1972–73	4 841 898	3 707 653	1 951 951	1 228 475	1 101 041	403 087	97 127	173 306
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 ¹¹	7 307 183	5 632 521	4 568 205	1 656 035	2 437 994	512 106	235 881	375 183
2012–13	7 410 399	5 739 341	4 656 803	1 670 827	2 519 321	513 159	240 759	381 488

^{7,8,11} See end notes.

Source: ABS (2014m).

Table I 1.6 Key indicators influencing Australian infrastructure

Financial year	Goods exports	Goods imports	Consumer Price Index, annual percentage change	Rate at close of financial year	
				Exchange rate ¹³	Interest rate ¹⁴
		\$ million	%	1 \$A=\$US	%
1971–72	4 766	-3 814	7.0	1.2	5.8
1972–73	6 110	-3 831	6.1	1.4	6.4
1973–74	6 861	-5 795	12.7	1.5	18.8
1974–75	8 656	-7 728	17.0	1.3	8.8
1975–76	9 628	-7 999	12.8	1.2	10.3
1976–77	11 618	-10 428	13.7	1.1	11.0
1977–78	12 208	-11 242	9.7	1.1	10.6
1978–79	14 292	-13 506	8.0	1.1	10.3
1979–80	18 946	-16 066	10.3	1.2	13.8
1980–81	19 095	-19 486	9.2	1.1	15.6
1981–82	19 742	-22 662	10.5	1.0	18.6
1982–83	21 313	-22 006	11.5	0.9	14.2
1983–84	24 049	-23 731	6.9	0.9	12.8
1984–85	30 200	-30 358	4.3	0.7	15.8
1985–86	32 603	-35 986	8.4	0.7	14.7
1986–87	36 406	-37 251	9.3	0.7	13.7
1987–88	41 915	-40 564	7.4	0.8	13.1
1988–89	44 292	-47 199	7.3	0.8	18.4
1989–90	49 027	-51 245	8.1	0.8	15.0
1990–91	52 685	-49 625	5.3	0.8	10.4
1991–92	55 537	-51 413	1.9	0.7	6.4
1992–93	60 787	-59 848	1.0	0.7	5.2
1993–94	64 514	-64 801	1.8	0.7	5.1
1994–95	67 191	-75 239	3.2	0.7	7.6
1995–96	76 309	-77 911	4.3	0.8	7.6
1996–97	81 057	-79 449	1.3	0.7	5.4
1997–98	88 583	-92 034	0.0	0.6	5.3
1998–99	85 636	-98 178	1.3	0.7	4.9
1999–00	97 685	-110 564	2.4	0.6	6.2
2000–01	120 201	-120 800	6.0	0.5	5.0
2001–02	121 067	-122 193	2.9	0.6	5.1
2002–03	115 895	-134 761	3.0	0.7	4.7
2003–04	109 418	-133 642	2.4	0.7	5.5
2004–05	127 811	-151 669	2.4	0.8	5.7
2005–06	154 044	-171 716	3.2	0.7	6.0
2006–07	169 620	-186 955	3.0	0.8	6.4
2007–08	182 925	-208 929	3.4	1.0	7.8
2008–09	231 615	-224 858	3.1	0.8	3.3
2009–10	201 805	-210 800	2.3	0.9	4.9
2010–11	247 022	-225 381	3.1	1.1	5.0
2011–12	265 109	-257 516	2.3	1.0	3.5
2012–13	248 919	-255 393	2.3	0.9	2.8
2013–14	274 414	-266 350	2.7	0.9	2.5

^{13, 14} See end notes.

Source: ABS (2014c), ABS (2014d) and RBA (2014).

CHAPTER 2

Infrastructure construction

Table I 2.1a Value of major infrastructure engineering construction work done by the private sector for the private sector, adjusted by chain volume index

Financial year	Transport	Energy	Telecommunications	Water	Total major infrastructure engineering construction work done
\$ million					
1986–87	1 493.0	415.8	28.0	181.7	2 118.6
1987–88	1 684.6	404.0	14.1	238.6	2 341.3
1988–89	1 912.6	376.2	14.9	250.1	2 553.8
1989–90	2 232.0	290.0	11.9	243.0	2 776.9
1990–91	1 963.6	290.3	15.7	345.8	2 615.3
1991–92	1 919.5	343.3	11.8	200.8	2 475.3
1992–93	1 766.5	459.0	119.2	269.1	2 613.8
1993–94	2 169.2	501.1	142.1	436.2	3 248.6
1994–95	1 974.7	563.3	122.4	572.1	3 232.6
1995–96	2 026.9	1 181.4	321.1	662.9	4 192.3
1996–97	2 729.6	1 066.1	273.1	322.4	4 391.1
1997–98	3 643.8	1 457.4	108.8	390.8	5 600.7
1998–99	4 109.5	1 830.1	176.3	352.1	6 468.0
1999–00	3 129.6	2 700.1	534.7	490.9	6 855.3
2000–01	2 175.6	2 507.6	929.3	556.2	6 168.8
2001–02	2 848.8	2 701.5	529.3	433.5	6 513.2
2002–03	4 528.0	3 155.6	502.3	628.4	8 814.3
2003–04	6 236.8	3 927.0	1 056.6	1 061.6	12 282.0
2004–05	8 343.8	3 662.3	1 204.3	843.7	14 054.0
2005–06	8 574.5	3 559.9	1 496.6	948.1	14 579.1
2006–07	8 410.4	4 427.2	3 864.5	950.3	17 652.5
2007–08	8 160.4	4 544.9	4 603.0	1 720.7	19 029.0
2008–09	8 686.9	6 085.9	3 933.9	1 619.8	20 326.5
2009–10	7 887.0	5 396.3	3 746.0	2 309.8	19 339.1
2010–11	10 464.3	6 057.3	3 688.2	3 657.3	23 867.1
2011–12	14 332.7	7 154.2	4 366.2	2 708.2	28 561.4
2012–13	14 845.3	10 997.4	4 561.0	2 054.9	32 458.6
2013–14	13 105.4	11 399.6	4 722.3	1 829.7	31 056.9

Source: ABS (2014e), adjusted by chain volume index.

Table I 2.1b Value of major infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index

Financial year	Transport	Energy	Telecommunications	Water	Total major infrastructure engineering construction work done
\$ million					
1986–87	2 657.4	1 382.7	74.7	778.9	4 893.7
1987–88	1 913.1	897.2	56.6	742.8	3 609.7
1988–89	1 744.7	883.1	12.9	602.2	3 242.9
1989–90	2 017.9	822.4	20.0	618.3	3 478.5
1990–91	2 246.7	1 197.8	37.7	782.1	4 264.3
1991–92	2 218.9	1 264.0	54.5	804.6	4 342.0
1992–93	2 782.9	1 083.7	40.0	793.2	4 699.8
1993–94	3 439.2	990.3	53.9	1 019.6	5 502.9
1994–95	3 206.1	810.1	20.6	773.6	4 810.5
1995–96	3 063.2	881.9	43.6	705.1	4 693.8
1996–97	3 571.1	985.4	11.8	634.2	5 202.5
1997–98	4 318.7	701.1	52.4	676.9	5 749.1
1998–99	4 899.4	426.4	35.3	781.5	6 142.5
1999–00	4 546.0	467.9	207.4	1 346.3	6 567.6
2000–01	4 153.4	421.7	397.5	1 122.4	6 095.0
2001–02	3 507.7	553.3	480.5	826.7	5 368.2
2002–03	3 581.1	639.6	406.4	876.1	5 503.1
2003–04	3 719.6	396.4	62.4	1 275.6	5 454.0
2004–05	4 989.7	672.1	214.8	1 443.3	7 320.0
2005–06	5 613.1	908.7	73.6	1 267.3	7 862.8
2006–07	6 185.1	586.6	45.0	1 441.5	8 258.2
2007–08	6 779.0	479.9	26.9	4 477.3	11 763.2
2008–09	9 218.9	691.4	51.7	4 437.9	14 400.0
2009–10	9 367.8	974.4	182.7	4 419.5	14 944.4
2010–11	11 183.3	1 020.9	276.4	3 232.9	15 713.6
2011–12	11 868.4	1 291.9	521.4	2 574.9	16 256.7
2012–13	11 558.7	1 526.6	783.5	1 966.4	15 835.2
2013–14	10 412.0	1 358.7	1 045.1	1 607.8	14 423.6

Source: ABS (2014e), adjusted by chain volume index.

Table I 2.1c Value of major infrastructure engineering construction work done by the public sector, adjusted by chain volume index

Financial year	Transport	Energy	Telecommunications	Water	Total major engineering construction work done
\$ million					
1986–87	3 085.6	1 398.8	3 577.4	1 659.1	9 720.8
1987–88	2 903.0	1 389.9	3 309.6	1 361.0	8 963.6
1988–89	2 782.2	1 379.3	3 562.3	1 354.3	9 078.1
1989–90	3 230.5	1 905.3	3 908.6	1 344.3	10 388.8
1990–91	3 294.7	1 589.5	3 971.9	1 430.1	10 286.2
1991–92	2 983.2	1 429.9	3 036.5	1 339.9	8 789.6
1992–93	3 685.3	1 493.0	3 008.4	1 270.7	9 457.5
1993–94	3 893.6	1 522.5	2 716.5	930.3	9 062.9
1994–95	4 074.6	1 567.3	3 655.3	914.8	10 211.9
1995–96	4 332.0	1 171.2	4 235.1	705.1	10 443.5
1996–97	4 065.9	960.9	4 213.7	543.7	9 784.2
1997–98	3 700.5	1 038.4	4 322.4	693.3	9 754.7
1998–99	3 717.5	1 386.8	4 578.8	803.7	10 486.8
1999–00	3 648.5	1 699.9	5 308.6	961.2	11 618.2
2000–01	3 324.9	1 993.5	4 506.8	742.3	10 567.5
2001–02	3 548.8	2 144.6	4 116.4	699.8	10 509.6
2002–03	3 707.6	2 271.7	3 661.8	810.6	10 451.7
2003–04	3 756.7	2 596.3	3 072.7	782.6	10 208.2
2004–05	3 866.1	2 694.0	3 236.2	850.9	10 647.1
2005–06	3 884.4	3 796.8	4 328.2	988.3	12 997.7
2006–07	4 322.0	4 662.9	1 607.1	1 356.8	11 948.7
2007–08	4 824.7	4 925.6	7.4	1 820.9	11 578.7
2008–09	5 739.0	5 866.8	7.4	1 775.8	13 389.1
2009–10	6 392.2	6 248.7	10.4	2 481.8	15 133.2
2010–11	6 432.2	5 705.2	6.2	2 729.6	14 873.3
2011–12	6 832.9	5 935.9	4.8	2 619.9	15 393.5
2012–13	6 361.7	5 349.7	9.3	2 693.0	14 413.7
2013–14	5 399.5	4 174.6	7.6	2 212.4	11 794.0

Source: ABS (2014e), adjusted by chain volume index.

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

Financial year	Transport	Energy	Telecommunications	Water	Total major engineering construction work done
\$ million					
1986–87	7 236.0	3 197.3	3 680.2	2 619.6	16 733.1
1987–88	6 500.7	2 691.1	3 380.3	2 342.4	14 914.5
1988–89	6 439.5	2 638.6	3 590.1	2 206.5	14 874.8
1989–90	7 480.5	3 017.6	3 940.5	2 205.6	16 644.1
1990–91	7 505.1	3 077.6	4 025.3	2 558.0	17 165.9
1991–92	7 121.6	3 037.2	3 102.8	2 345.3	15 606.9
1992–93	8 234.8	3 035.7	3 167.6	2 332.9	16 771.1
1993–94	9 501.9	3 014.0	2 912.5	2 386.1	17 814.4
1994–95	9 255.4	2 940.7	3 798.3	2 260.5	18 255.0
1995–96	9 422.1	3 234.5	4 599.9	2 073.1	19 329.6
1996–97	10 366.6	3 012.4	4 498.5	1 500.2	19 377.8
1997–98	11 663.0	3 196.9	4 483.6	1 760.9	21 104.5
1998–99	12 726.3	3 643.3	4 790.5	1 937.2	23 097.3
1999–00	11 324.1	4 867.9	6 050.7	2 798.4	25 041.1
2000–01	9 653.9	4 922.9	5 833.7	2 420.9	22 831.4
2001–02	9 905.3	5 399.4	5 126.3	1 960.0	22 391.0
2002–03	11 816.7	6 066.9	4 570.5	2 315.1	24 769.1
2003–04	13 713.1	6 919.7	4 191.7	3 119.7	27 944.3
2004–05	17 199.6	7 028.4	4 655.3	3 137.8	32 021.2
2005–06	18 072.0	8 265.5	5 898.5	3 203.7	35 439.6
2006–07	18 917.5	9 676.7	5 516.5	3 748.7	37 859.4
2007–08	19 764.2	9 950.4	4 637.3	8 019.0	42 370.8
2008–09	23 644.9	12 644.1	3 993.0	7 833.6	48 115.5
2009–10	23 647.1	12 619.4	3 939.0	9 211.2	49 416.6
2010–11	28 079.8	12 783.5	3 970.8	9 619.9	54 454.0
2011–12	33 034.0	14 382.1	4 892.4	7 903.0	60 211.5
2012–13	32 765.7	17 873.7	5 353.8	6 714.3	62 707.5
2013–14	28 916.9	16 932.8	5 774.9	5 649.9	57 274.5

Source: ABS (2014e), adjusted by chain volume index.

PART T: Transport

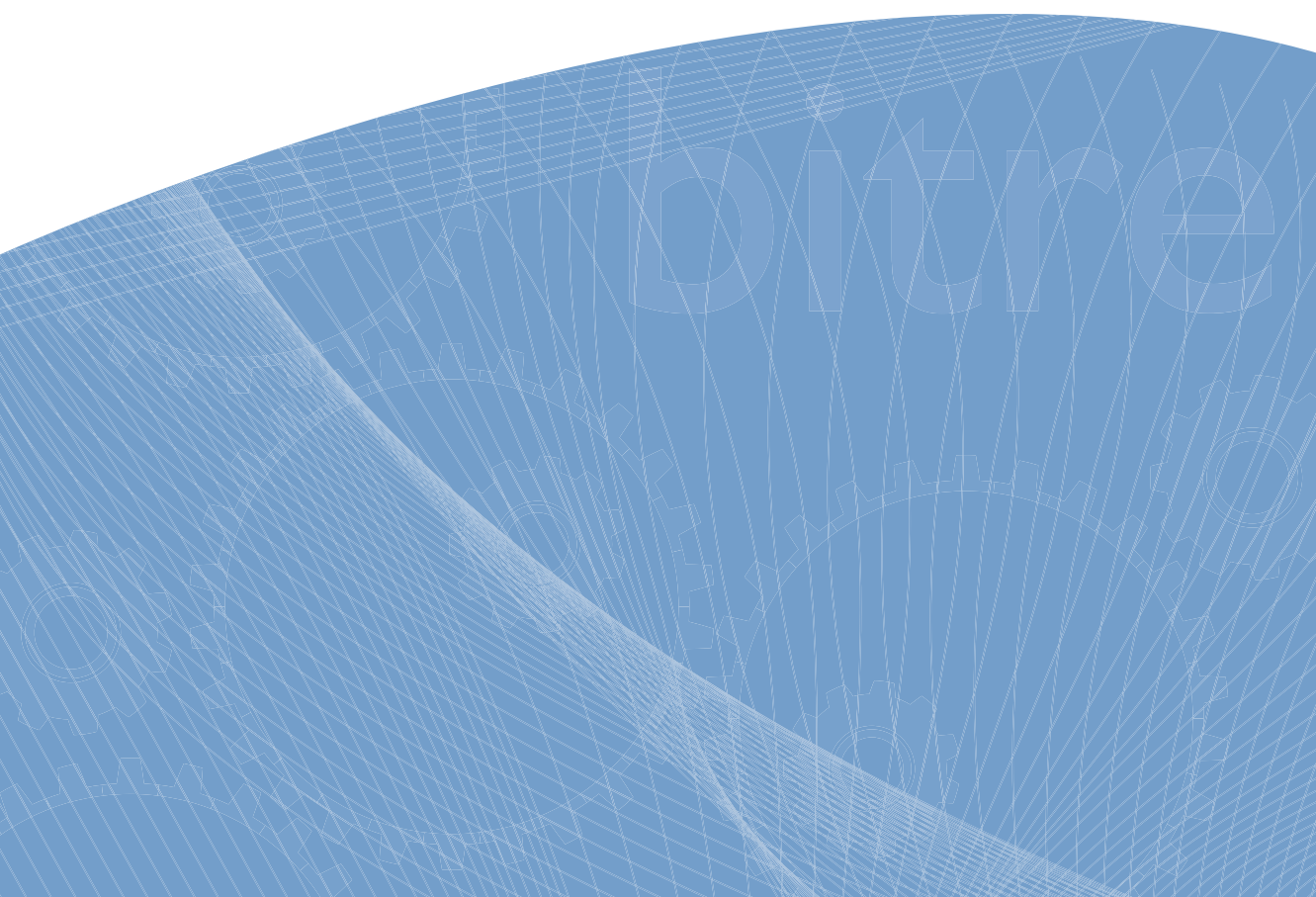
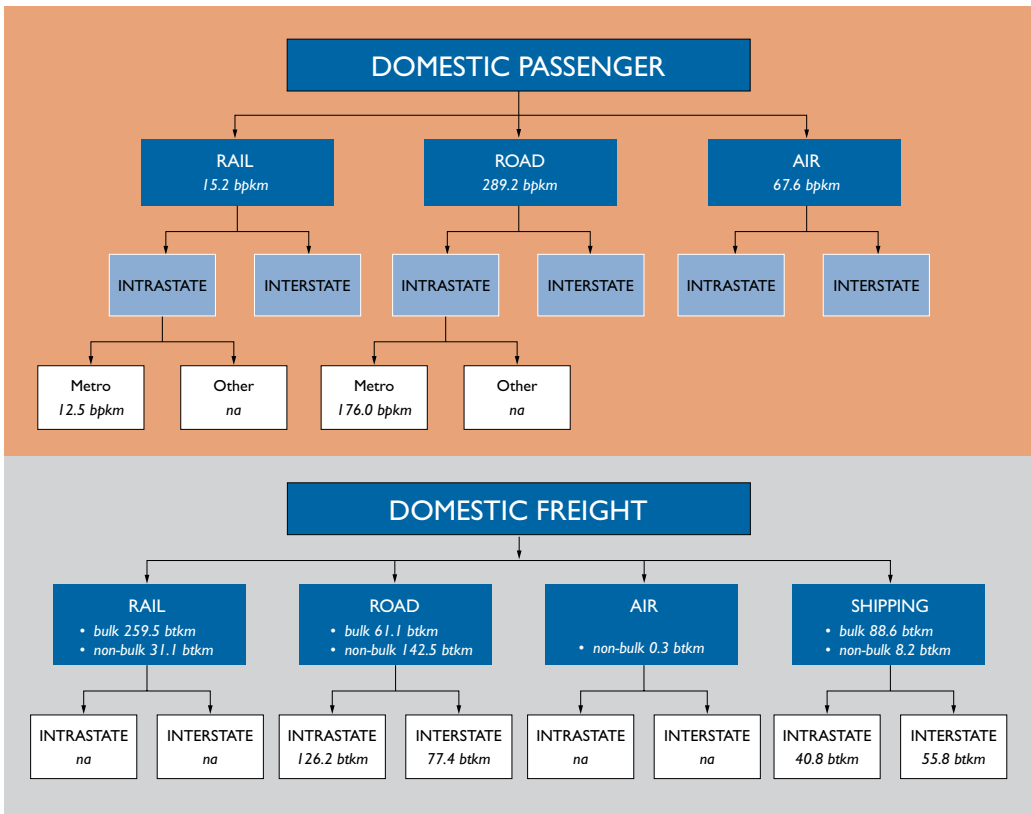


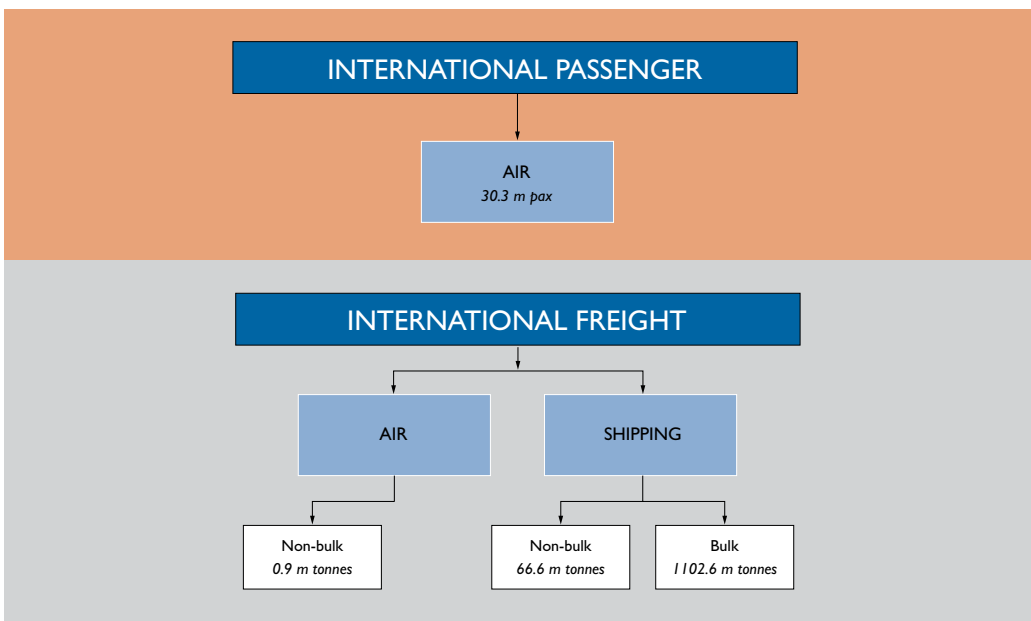
Figure T 1a Australia's domestic transport, 2012–13



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

Note: Numbers are for 2012–13 except rail freight (2011–12).

Figure T 1b Australia's international transport, 2012–13

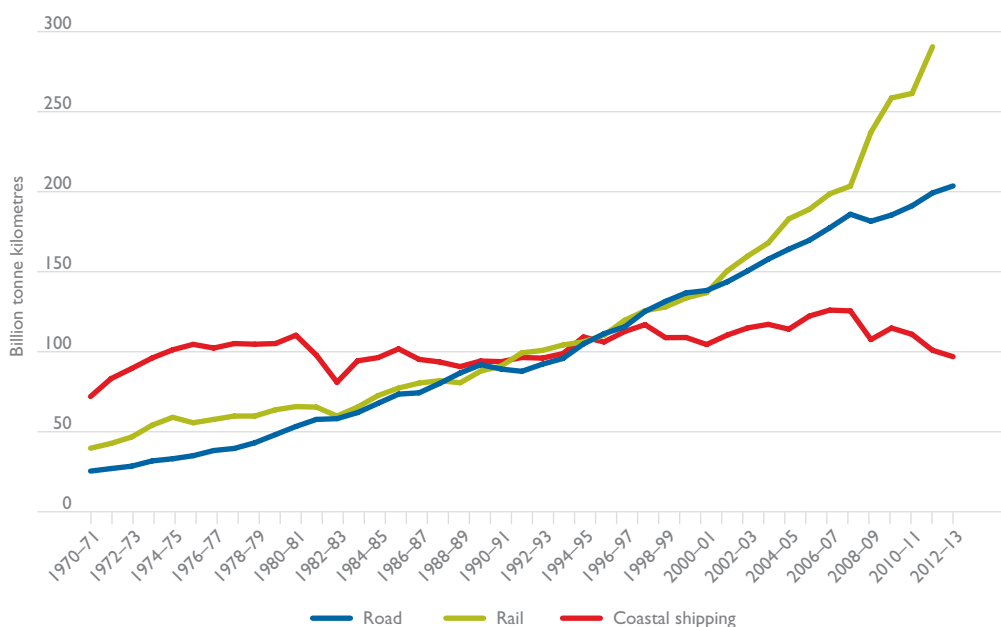


PART T

Transport

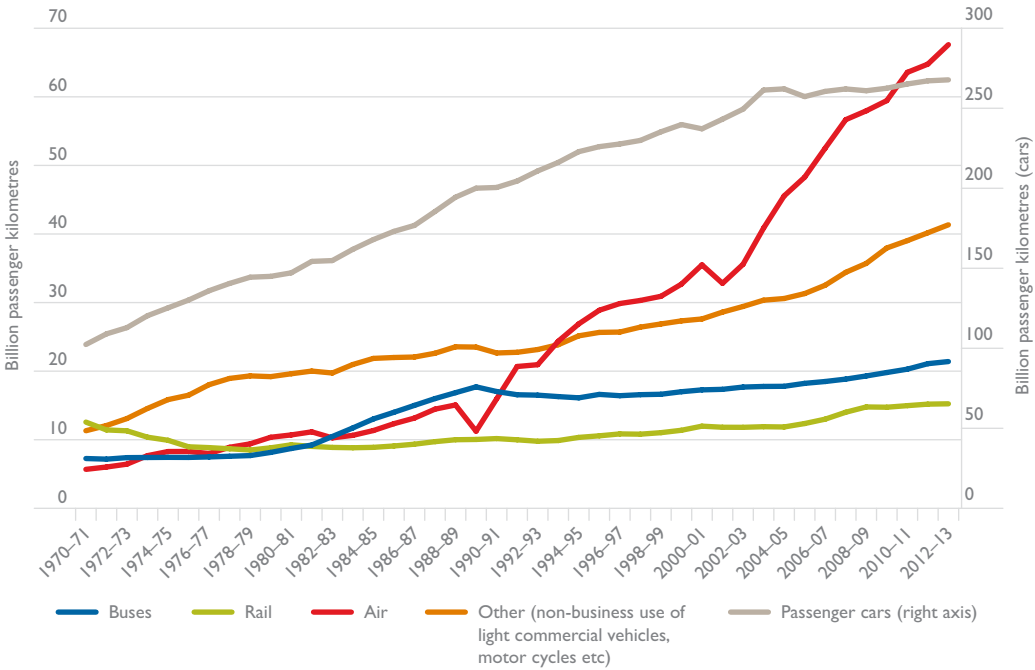
Statistics for Australian transport activity are provided from two perspectives: transportation activity measured in terms of what is being transported (freight or passengers), or transportation activity by mode (road, rail, aviation or shipping).

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



Freight transport activity is measured in terms of tonne kilometres (the movement of one tonne of freight, 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. Coastal freight has decreased from its peak in 2006–07.

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



Passenger transport activity is measured in terms of passenger kilometres (the movement of one passenger, one kilometre). The Australian domestic passenger task is dominated by road transport, mainly passenger cars (right axis), which remained relatively constant in the six years to 2009–10 but grew steadily since 2010. Passenger travel on other modes increased in recent years, with travel by air increasing rapidly since 2001.

CHAPTER I

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

Financial year	Roads and bridges	Railways	Ports and harbours	Total major infrastructure engineering construction work done	Transport percentage of total
		\$ million			per cent
1986–87	950.9	188.3	354.3	2 119.2	70.47
1987–88	1 335.7	85.3	264.1	2 342.0	71.95
1988–89	1 820.0	41.6	51.6	2 554.6	74.89
1989–90	2 092.0	28.6	112.2	2 777.7	80.38
1990–91	1 845.4	31.4	87.4	2 616.1	75.08
1991–92	1 810.7	57.6	51.8	2 476.1	77.55
1992–93	1 689.0	21.7	56.4	2 614.5	67.59
1993–94	1 985.1	66.3	118.4	3 249.6	66.77
1994–95	1 884.4	48.0	43.0	3 233.6	61.09
1995–96	1 886.2	101.0	40.4	4 193.5	48.35
1996–97	2 468.6	130.9	131.0	4 392.5	62.16
1997–98	3 037.0	276.1	331.7	5 602.4	65.06
1998–99	3 552.9	251.0	306.8	6 470.0	63.54
1999–00	2 773.4	235.4	121.7	6 857.4	45.65
2000–01	1 909.7	134.7	131.8	6 170.7	35.27
2001–02	2 305.6	393.6	150.5	6 515.2	43.74
2002–03	3 589.5	744.1	195.7	8 816.9	51.37
2003–04	5 476.3	372.4	390.0	12 285.7	50.78
2004–05	6 725.4	631.9	989.0	14 058.3	59.37
2005–06	6 903.9	596.5	1 076.7	14 583.5	58.81
2006–07	6 149.5	1 122.1	1 141.4	17 657.8	47.64
2007–08	5 433.7	1 649.8	1 079.3	19 034.7	42.88
2008–09	6 234.2	1 215.7	1 239.5	20 332.6	42.74
2009–10	5 029.2	1 368.1	1 447.5	19 276.2	40.70
2010–11	5 387.5	2 154.6	2 846.3	23 777.6	43.69
2011–12	5 554.0	4 076.3	4 625.9	28 430.2	50.14
2012–13	5 194.1	4 173.2	5 555.2	32 867.1	45.40
2013–14	4 303.5	4 314.9	4 487.0	31 056.9	42.20

Source: ABS (2014e), adjusted by chain volume index.

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

Financial year	Roads and bridges	Railways	Ports and harbours	Total major infrastructure engineering construction work done	Transport percentage of total
	\$ million				per cent
1986–87	2 118.7	289.8	248.9	4 893.7	54.30
1987–88	1 554.4	263.4	95.3	3 609.7	53.00
1988–89	1 526.7	80.5	137.5	3 242.9	53.80
1989–90	1 851.0	94.5	72.4	3 478.5	58.01
1990–91	1 981.1	155.4	110.2	4 264.3	52.69
1991–92	1 980.7	168.3	69.9	4 342.0	51.10
1992–93	2 427.9	187.6	167.4	4 699.8	59.21
1993–94	2 877.6	380.1	181.5	5 502.9	62.50
1994–95	2 581.9	523.0	101.3	4 810.5	66.65
1995–96	2 635.5	321.5	106.3	4 693.8	65.26
1996–97	2 675.4	646.9	248.8	5 202.5	68.64
1997–98	3 481.8	699.4	137.6	5 749.1	75.12
1998–99	4 181.8	565.0	152.5	6 142.5	79.76
1999–00	4 174.1	258.7	113.2	6 567.6	69.22
2000–01	3 885.7	161.9	105.8	6 095.0	68.14
2001–02	3 184.0	95.2	228.5	5 368.2	65.34
2002–03	3 075.5	333.8	171.8	5 503.1	65.07
2003–04	2 632.8	914.9	172.0	5 454.0	68.20
2004–05	3 507.4	1 285.9	196.4	7 320.0	68.17
2005–06	4 149.5	1 300.9	162.7	7 862.8	71.39
2006–07	5 129.6	904.4	151.1	8 258.2	74.90
2007–08	5 893.6	661.4	224.0	11 763.2	57.63
2008–09	7 582.1	1 324.1	312.7	14 400.0	64.02
2009–10	7 315.1	1 500.2	552.6	14 944.4	62.68
2010–11	8 423.0	2 066.3	693.9	15 713.6	71.17
2011–12	9 128.2	2 428.8	311.5	16 256.7	73.01
2012–13	8 875.7	2 467.6	215.8	15 835.2	73.00
2013–14	7 684.7	2 305.8	421.5	14 423.6	72.19

Source: ABS (2014e), adjusted by chain volume index.

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

Financial year	Roads and bridges	Railways	Ports and harbours	Total major engineering construction work done	Transport percentage of total
		\$ million			per cent
1986–87	2 742.7	274.2	68.7	9 720.8	31.74
1987–88	2 561.6	299.0	42.5	8 963.6	32.39
1988–89	2 549.5	187.9	44.8	9 078.1	30.65
1989–90	2 666.5	508.0	56.0	10 388.8	31.10
1990–91	2 664.3	562.9	67.5	10 286.2	32.03
1991–92	2 357.9	596.1	29.2	8 789.6	33.94
1992–93	2 956.7	696.0	32.7	9 457.5	38.97
1993–94	3 037.1	809.1	47.4	9 062.9	42.96
1994–95	2 958.7	1 078.8	37.1	10 211.9	39.90
1995–96	2 996.2	1 305.6	30.2	10 443.5	41.48
1996–97	2 658.5	1 370.1	37.3	9 784.2	41.56
1997–98	2 791.8	863.6	45.2	9 754.7	37.94
1998–99	2 816.4	825.3	75.7	10 486.8	35.45
1999–00	2 917.5	706.0	25.0	11 618.2	31.40
2000–01	2 645.3	619.3	60.3	10 567.5	31.46
2001–02	2 664.0	789.2	95.6	10 509.6	33.77
2002–03	2 873.8	771.3	62.6	10 451.7	35.47
2003–04	2 865.7	825.1	65.9	10 208.2	36.80
2004–05	2 777.2	1 061.2	27.7	10 647.1	36.31
2005–06	2 942.4	925.6	16.4	12 997.7	29.89
2006–07	3 276.5	1 011.9	33.5	11 948.7	36.17
2007–08	3 570.5	943.0	311.3	11 578.7	41.67
2008–09	4 339.7	975.3	424.0	13 389.1	42.86
2009–10	4 129.9	2 051.2	211.2	15 133.2	42.24
2010–11	4 258.6	2 120.2	53.4	14 873.3	43.25
2011–12	4 743.9	2 048.3	40.7	15 393.5	44.39
2012–13	4 648.7	1 668.5	44.4	14 413.7	44.14
2013–14	4 318.0	1 025.7	55.8	11 794.0	45.78

Source: ABS (2014e), adjusted by chain volume index.

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

Financial year	Roads and bridges	Railways	Ports and harbours	Total major engineering construction work done	Transport percentage of total
		<i>\$ million</i>			<i>per cent</i>
1986–87	5 812.3	752.2	671.9	16 733.1	43.25
1987–88	5 451.7	647.7	401.9	14 914.5	43.59
1988–89	5 896.2	310.0	233.9	14 874.8	43.30
1989–90	6 609.5	631.0	240.6	16 644.1	44.95
1990–91	6 490.9	749.6	265.2	17 165.9	43.72
1991–92	6 149.4	822.0	150.8	15 606.9	45.63
1992–93	7 073.6	905.3	256.4	16 771.1	49.10
1993–94	7 899.8	1 255.6	347.2	17 814.4	53.34
1994–95	7 424.9	1 649.8	181.3	18 255.0	50.70
1995–96	7 517.8	1 728.1	176.8	19 329.6	48.75
1996–97	7 802.5	2 147.9	417.1	19 377.8	53.50
1997–98	9 310.5	1 839.1	514.5	21 104.5	55.27
1998–99	10 551.1	1 641.4	535.1	23 097.3	55.10
1999–00	9 864.9	1 200.1	260.0	25 041.1	45.23
2000–01	8 440.7	915.9	297.9	22 831.4	42.29
2001–02	8 153.7	1 277.9	474.6	22 391.0	44.24
2002–03	9 538.8	1 849.2	430.0	24 769.1	47.71
2003–04	10 974.8	2 112.4	627.8	27 944.3	49.08
2004–05	13 009.9	2 979.0	1 213.2	32 021.2	53.72
2005–06	13 995.8	2 823.0	1 255.8	35 439.6	51.00
2006–07	14 555.6	3 038.4	1 326.0	37 859.4	49.97
2007–08	14 897.8	3 254.2	1 614.6	42 370.8	46.65
2008–09	18 156.0	3 515.2	1 976.3	48 115.5	49.15
2009–10	16 474.2	4 919.5	2 211.2	49 416.6	47.77
2010–11	18 069.1	6 341.1	3 593.6	54 454.0	51.43
2011–12	19 426.1	8 553.4	4 978.0	60 211.5	54.74
2012–13	18 718.5	8 309.3	5 815.4	62 707.5	52.38
2013–14	16 306.1	7 646.4	4 964.4	57 274.5	50.49

Source: ABS (2014e), adjusted by chain volume index.

Table T 1.2a Road-related expenditure by Commonwealth, 1998–99 to 2012–13
(constant 2012–13 prices)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other	Total Government
\$ million										
1998–99	925.1	470.1	574.5	270.8	308.7	111.7	89.0	51.6	4.6	2 806.1
1999–00	892.6	428.9	594.3	210.2	276.1	119.4	92.7	73.8	5.3	2 693.3
2000–01	763.1	353.4	597.6	128.9	245.6	90.5	69.0	27.9	4.1	2 280.2
2001–02	873.2	646.1	606.5	176.5	320.6	83.7	68.0	52.7	5.1	2 832.5
2002–03	861.8	530.2	564.2	149.0	276.7	82.6	63.8	30.4	3.8	2 562.5
2003–04	977.3	406.7	582.6	168.8	274.6	71.0	59.2	29.8	3.1	2 573.1
2004–05	1 047.7	548.6	547.5	186.0	297.1	86.7	67.6	30.8	3.5	2 815.6
2005–06	2 274.4	679.1	1 054.1	332.0	763.1	173.3	111.9	40.0	4.5	5 432.5
2006–07	1 160.4	662.6	833.9	222.4	372.0	84.6	55.1	36.3	7.7	3 435.1
2007–08	839.7	633.9	864.0	229.8	408.8	81.2	75.4	21.9	7.2	3 161.9
2008–09	1 636.9	687.8	1 972.2	369.4	484.3	101.2	86.5	28.6	4.5	5 371.5
2009–10	1 745.7	858.9	1 757.6	510.1	416.3	165.0	159.1	43.9	6.8	5 663.2
2010–11	1 584.3	561.7	838.9	201.2	355.0	143.8	82.1	50.7	6.5	3 824.2
2011–12	2 699.0	1 115.9	2 128.3	480.6	631.3	103.0	146.9	51.3	7.7	7 363.9
2012–13	1 252.3	431.7	698.2	185.7	496.5	65.1	94.1	48.5	7.0	3 279.2

Source: BITRE estimates.

Table T 1.2b Road-related expenditure by State, 1998–99 to 2012–13
(constant 2012–13 prices)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total Government	Total Public Sector
\$ million										
1998–99	2 546.1	1 005.8	2 747.1	227.2	684.0	129.9	67.1	106.2	7 513.5	8 120.3
1999–00	2 790.9	1 582.5	1 798.1	378.2	1 095.3	124.9	16.6	34.0	7 820.6	8 603.1
2000–01	3 784.6	1 593.7	2 608.5	484.1	986.1	131.3	59.3	147.6	9 795.2	10 505.5
2001–02	3 279.3	1 060.6	2 257.5	438.9	1 371.5	171.2	55.3	159.1	8 793.4	8 948.5
2002–03	3 173.8	1 980.5	1 244.3	454.6	846.6	193.9	48.9	169.8	8 112.4	8 314.2
2003–04	2 976.5	1 471.9	1 472.9	258.9	922.3	162.7	52.5	174.1	7 491.8	8 084.5
2004–05	3 122.1	1 483.5	1 483.7	307.0	973.4	222.1	44.9	132.9	7 769.6	8 141.3
2005–06	2 076.8	1 292.8	1 184.4	313.4	556.3	117.4	185.1	145.4	5 871.5	6 033.3
2006–07	3 292.8	1 461.5	2 389.7	305.3	1 215.9	151.5	222.8	158.3	9 197.9	9 596.8
2007–08	3 766.6	1 786.3	3 215.6	353.5	1 426.1	176.6	210.3	185.3	11 120.4	12 097.8
2008–09	3 369.5	2 103.0	2 757.7	342.7	1 190.9	125.5	266.1	190.9	10 346.3	11 271.7
2009–10	3 611.8	1 996.7	2 874.9	207.4	1 157.0	191.1	155.5	223.1	10 417.4	11 132.1
2010–11	3 564.2	2 149.1	4 166.9	452.6	1 018.1	214.7	227.8	259.8	12 053.2	12 571.8
2011–12	2 705.5	1 248.4	3 882.4	234.8	908.2	148.7	264.0	217.5	9 609.5	10 583.4
2012–13	3 795.3	1 209.2	6 075.9	677.8	1 534.2	177.9	147.4	221.5	13 839.1	14 249.1

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

Source: ABS (2014f), BITRE estimates.

Table T 1.2c Road-related expenditure by Local, 1998–99 to 2012–13
(constant 2012–13 prices)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total Government
\$ million									
1998–99	2 277.2	1 126.2	1 392.6	258.5	536.3	103.5	nes	na	5 687.9
1999–00	2 351.0	1 167.1	1 506.8	269.5	673.0	98.7	nes	na	6 082.0
2000–01	2 168.9	995.6	1 463.6	263.6	661.4	101.0	nes	na	5 652.7
2001–02	2 168.4	1 071.2	1 465.8	279.7	623.4	109.8	nes	na	5 706.7
2002–03	1 996.5	1 008.0	1 481.5	259.3	645.0	104.9	nes	na	5 504.8
2003–04	1 754.9	975.9	1 490.5	263.5	559.1	103.5	nes	na	5 156.1
2004–05	1 657.3	991.4	1 224.0	261.1	658.5	97.1	nes	na	4 895.8
2005–06	1 386.9	862.0	1 310.7	222.4	429.6	84.7	nes	na	4 273.2
2006–07	1 487.4	945.2	1 382.4	255.1	557.4	105.4	nes	na	4 748.6
2007–08	1 667.2	1 073.4	1 650.4	273.2	736.1	104.2	nes	na	5 511.7
2008–09	1 613.3	1 002.4	1 837.5	307.5	657.8	115.9	nes	na	5 538.1
2009–10	1 126.3	1 030.2	1 924.5	279.3	667.9	129.9	nes	na	5 124.6
2010–11	1 416.5	1 112.1	2 262.7	284.3	730.4	144.9	nes	na	5 922.3
2011–12	1 432.4	1 187.6	2 307.3	315.5	664.4	129.0	nes	na	5 950.1
2012–13	1 662.0	1 239.4	2 348.6	333.2	715.0	133.8	nes	na	6 429.9

na: not applicable.

nes: not estimated separately.

Source: ABS (2014f), BITRE estimates.

Table T 1.2d Road-related expenditure by All Government, 1998–99 to 2012–13
(constant 2012–13 prices)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other	Total Government	Total Public Sector
\$ million											
1998–99	5 748.4	2 602.1	4 714.2	756.5	1 529.0	345.2	149.8	157.8	4.6	16 007.6	16 614.4
1999–00	6 034.5	3 178.4	3 899.2	858.0	2 044.4	343.1	125.2	107.7	5.3	16 595.9	17 378.4
2000–01	6 716.6	2 942.7	4 669.7	876.6	1 893.1	322.8	128.9	173.5	4.1	17 728.1	18 438.5
2001–02	6 320.9	2 778.0	4 329.9	895.2	2 315.5	364.6	118.3	205.3	5.1	17 332.7	17 487.8
2002–03	6 032.1	3 518.7	3 290.0	862.9	1 768.3	381.5	127.3	195.2	3.8	16 179.7	16 381.5
2003–04	5 708.7	2 854.4	3 546.1	691.2	1 756.0	337.3	127.5	196.7	3.1	15 220.9	15 813.6
2004–05	5 827.1	3 023.5	3 255.2	754.1	1 929.1	405.9	127.2	155.4	3.5	15 481.0	15 852.7
2005–06	5 738.1	2 833.9	3 549.2	867.7	1 748.9	375.4	292.0	167.5	4.5	15 577.3	15 739.0
2006–07	5 940.7	3 069.3	4 606.0	782.8	2 145.4	341.5	307.2	181.0	7.7	17 381.6	17 780.5
2007–08	6 273.5	3 493.6	5 730.0	856.5	2 571.0	362.0	293.0	207.2	7.2	19 794.0	20 771.4
2008–09	6 619.7	3 793.2	6 567.4	1 019.7	2 333.0	342.6	356.2	219.4	4.5	21 255.9	22 181.3
2009–10	6 483.8	3 885.8	6 556.9	996.8	2 241.2	485.9	300.3	247.8	6.8	21 205.3	21 920.0
2010–11	6 565.0	3 822.9	7 268.5	938.1	2 103.4	503.4	307.6	284.4	6.5	21 799.8	22 318.3
2011–12	6 836.9	3 551.8	8 318.0	1 030.8	2 203.9	380.7	337.0	256.6	7.7	22 923.4	23 897.4
2012–13	6 709.6	2 880.3	9 122.7	1 196.7	2 745.6	376.9	239.5	270.0	7.0	23 548.2	23 958.2

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

Source: ABS (2014f), BITRE estimates.

Table T 1.2e Road-related expenditure by All Government and Private Sector, 1998–99 to 2012–13 (constant 2012–13 prices)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other	Total Government and Private Sector	Total Public and Private Sector
\$ million											
1998–99	5 901.2	2 620.2	4 878.6	782.8	1 529.0	351.7	149.8	157.8	4.6	16 375.7	16 982.5
1999–00	6 137.4	3 192.9	4 109.8	880.5	2 044.4	346.3	131.7	107.7	5.3	16 956.1	17 738.6
2000–01	6 799.5	2 950.5	4 785.4	898.4	1 893.1	325.9	144.6	173.5	4.1	17 975.2	18 685.5
2001–02	6 383.1	2 778.0	4 468.3	906.1	2 373.1	367.8	121.4	205.3	5.1	17 607.9	17 763.0
2002–03	6 304.7	3 526.2	3 443.5	932.9	1 874.1	387.5	127.3	195.2	3.8	16 794.9	16 996.8
2003–04	5 885.6	2 848.8	3 745.6	716.7	1 859.3	342.9	127.5	196.7	3.1	15 726.1	16 318.8
2004–05	6 014.7	3 030.2	3 499.1	788.9	2 126.0	418.0	127.2	155.4	3.5	16 163.1	16 534.8
2005–06	5 912.0	2 833.9	3 903.4	889.5	1 970.2	394.6	292.0	167.5	4.5	16 367.6	16 529.3
2006–07	6 171.2	3 089.1	4 975.4	807.6	2 247.0	357.7	307.2	181.0	7.7	18 143.9	18 542.8
2007–08	6 474.8	3 573.2	6 063.6	899.8	2 633.0	379.6	293.0	207.2	7.2	20 531.6	21 509.0
2008–09	6 892.4	3 813.9	6 842.3	1 058.8	2 385.1	356.7	356.2	219.4	4.5	21 929.4	22 854.8
2009–10	6 762.3	3 907.7	6 821.2	1 027.5	2 296.0	504.5	300.3	247.8	6.8	21 874.1	22 588.8
2010–11	6 962.2	3 822.9	7 628.5	956.2	2 204.6	515.1	307.6	285.4	6.5	22 689.1	23 207.6
2011–12	7 290.2	3 671.5	8 608.1	1 047.1	2 251.6	395.9	337.0	308.3	7.7	23 917.3	24 891.2
2012–13	7 127.6	2 894.3	9 510.7	1 230.7	2 878.6	393.9	239.5	302.0	7.0	24 584.2	24 994.2

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

Source: ABS (2014f), BITRE estimates.

Table T 1.3 Selected road-related taxes and charges

Financial year	Australian Government		Sub-total	State and Territory governments			Sub-total	Tolls	Total road-related revenue
	Petroleum products excise	Federal Interstate Registration Scheme (FIRS)		Vehicle registration fees	Driver's licence fees	Stamp duty			
	\$ million, current (nominal) prices								
1997–98	8 816.4	17.7	8 834.2	2 285.0	221.6	1 260.0	3 766.6	137.9	12 738.6
1998–99	8 475.8	18.9	8 494.7	2 584.0	192.8	1 318.0	4 094.8	272.4	12 861.9
1999–00	8 680.3	21.8	8 702.2	2 528.0	222.8	1 365.0	4 115.8	360.5	13 178.6
2000–01	8 816.4	26.6	8 843.0	2 646.0	253.4	1 387.0	4 286.4	469.9	13 599.2
2001–02	9 156.3	31.3	9 187.5	2 787.0	239.1	1 504.0	4 530.1	601.2	14 318.9
2002–03	9 581.7	36.0	9 617.7	2 993.0	235.7	1 696.0	4 924.7	661.2	15 203.5
2003–04	9 650.1	41.1	9 691.1	3 243.0	262.7	1 887.0	5 392.7	732.8	15 816.6
2004–05	9 770.9	43.2	9 814.1	3 497.0	313.7	1 918.0	5 728.7	774.7	16 317.5
2005–06	9 518.7	50.0	9 568.7	3 647.0	311.9	1 922.0	5 880.9	996.3	16 445.9
2006–07	9 299.8	51.3	9 351.1	3 911.0	252.3	2 005.0	6 168.3	1 140.3	16 659.7
2007–08	9 142.7	54.2	9 196.9	3 411.4	240.9	2 208.0	5 860.3	1 156.9	16 214.1
2008–09	8 619.5	54.6	8 674.1	3 665.2	295.5	2 026.0	5 986.7	1 199.7	15 860.5
2009–10	8 619.6	61.9	8 681.5	4 219.7	323.8	2 117.0	6 660.4	1 430.2	16 772.1
2010–11	8 572.8	74.6	8 647.4	4 423.2	354.6	2 167.0	6 944.8	1 450.7	17 042.9
2011–12	9 007.3	82.5	9 089.8	4 735.8	389.6	2 280.0	7 405.4	1 481.9	17 977.1
2012–13	8 945.8	78.4	9 024.2	5 165.1	445.9	2 471.0	8 082.0	1 271.8	18 378.1

Note: This table excludes items that raise relatively small amounts of revenue. It also excludes items that are not readily available (for example, the Fringe Benefits Tax).

Source: ABS (2014o), BITRE estimates, RTA, NSW Transurban, Cross City Motorway, Connecteast, Queensland Motorways, River City Motorway and Brisbane City Council.

Table T 1.4 Total road length by state/territory, by road type^{1, 2, 3, 4, 5, 6, 7, 8}

	Urban					Non-urban					Total
	Highway	Arterial	Local	Busway	Sub-total	Highway	Arterial	Local	Busway	Sub-total	
	kilometres										
New South Wales											
2010	1 472.6	3 829.3	33 197.8	na	38 499.7	10 197.2	70 358.4	87 405.1	na	167 960.7	206 460.4
2011	1 479.1	3 952.8	33 411.7	na	38 843.6	10 297.5	70 014.6	87 917.3	na	168 229.4	207 073.0
2012	1 491.2	3 968.3	33 047.6	49.5	38 556.6	10 329.1	69 972.5	87 416.6	0.0	167 718.2	206 274.8
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
Victoria											
2010	1 636.5	4 993.9	27 994.6	na	34 625.0	6 627.8	30 578.7	71 887.7	na	109 094.2	143 719.2
2011	1 639.4	4 992.4	28 665.0	na	35 296.8	6 604.7	30 605.3	71 791.2	na	109 001.2	144 298.1
2012	1 652.9	5 012.7	29 182.3	0.0	35 848.0	6 626.2	30 620.1	71 332.8	0.0	108 579.1	144 427.0
2013	1 669.1	5 060.8	29 293.7	0.0	36 023.6	6 623.6	30 625.2	71 731.0	0.0	108 979.8	145 003.3
Queensland											
2010	910.8	2 185.6	25 792.0	na	28 888.4	10 879.2	19 055.2	170 713.1	na	200 647.5	229 535.9
2011	949.0	2 211.1	26 094.7	na	29 254.8	10 880.4	19 029.7	169 582.2	na	199 492.3	228 747.1
2012	983.7	2 281.1	26 238.0	28.7	29 531.5	10 887.2	19 051.2	167 603.2	0.0	197 541.6	227 073.1
2013	974.0	2 283.0	26 397.8	29.4	29 684.2	10 888.5	19 060.6	164 129.0	0.0	194 078.1	223 762.3
South Australia											
2010	273.7	1 637.6	10 614.7	na	12 526.0	4 347.5	12 801.8	67 509.3	na	84 658.6	97 184.5
2011	252.2	1 693.7	10 625.5	na	12 571.4	3 229.0	13 902.7	67 081.1	na	84 212.8	96 784.2
2012	252.5	1 694.3	10 607.2	24.7	12 578.7	3 231.2	13 978.1	67 262.9	0.0	84 472.2	97 050.9
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
Western Australia											
2010	1 266.3	1 284.6	15 650.6	na	18 201.5	10 238.3	15 785.5	110 788.5	na	136 812.3	155 013.8
2011	1 441.1	1 553.1	15 300.2	na	18 294.4	9 917.7	15 120.2	113 800.8	na	138 838.7	157 133.1
2012	1 392.6	1 626.0	15 325.9	15.4	18 359.9	9 869.3	15 175.7	113 990.7	5.8	139 041.5	157 401.4
2013	1 413.7	1 615.6	15 466.9	14.6	18 510.8	9 904.1	15 175.2	114 105.7	5.8	139 190.8	157 701.6
Tasmania											
2010	349.3	538.4	3 025.6	na	3 913.3	1 518.8	3 064.3	10 818.0	na	15 401.1	19 314.4
2011	351.1	538.2	3 032.7	na	3 922.0	1 516.5	3 090.9	11 270.9	na	15 878.3	19 800.3
2012	349.4	568.2	3 017.5	0.0	3 935.1	1 530.4	3 083.2	11 554.7	0.0	16 168.3	20 103.5
2013	349.3	569.0	3 033.1	0.0	3 951.3	1 530.3	3 084.7	11 535.2	0.0	16 150.2	20 101.5
Northern Territory											
2010	43.2	237.2	867.1	na	1 147.5	6 553.3	9 728.6	1 591.6	na	17 873.5	19 021.0
2011	23.9	302.9	839.9	na	1 166.7	6 556.5	10 135.2	1 475.0	na	18 166.7	19 333.4
2012	23.5	309.6	910.5	0.0	1 243.6	2 648.2	13 560.5	1 773.2	0.0	17 981.9	19 225.5
2013	23.5	309.5	925.6	0.0	1 258.6	2 647.9	13 594.4	1 803.0	0.0	18 045.3	19 303.9
Australian Capital Territory											
2010	30.8	295.8	2 589.0	na	2 915.6	37.7	53.1	440.0	na	530.8	3 446.4
2011	29.5	304.9	2 629.0	na	2 963.4	36.3	55.0	447.9	na	539.2	3 502.6
2012	28.9	308.7	2 650.5	0.0	2 988.1	36.3	57.8	277.9	0.0	372.0	3 360.1
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
Other Territories											
2010	0.0	0.0	0.0	na	0.0	0.0	12.2	141.9	na	154.1	154.1
2011	0.0	0.0	0.0	na	0.0	0.0	12.2	175.3	na	187.5	187.5
2012	0.0	0.0	0.0	0.0	0.0	0.0	18.7	162.0	0.0	180.7	180.7
2013	0.0	0.0	0.0	0.0	0.0	0.0	18.7	163.3	0.0	182.0	182.0
Australia											
2010	5 983.3	15 002.5	119 731.3	na	140 717.1	50 399.9	161 437.9	521 295.0	na	733 132.9	873 850.0
2011	6 165.4	15 549.2	120 598.6	na	142 313.2	49 038.6	161 965.7	523 541.7	na	734 546.0	876 859.2
2012	6 174.8	15 768.9	120 979.6	118.2	143 041.5	45 157.9	165 517.8	521 373.8	5.8	732 055.3	875 096.8
2013	6 202.6	15 858.9	121 829.0	120.5	144 011.0	45 215.7	165 435.7	518 180.4	5.8	728 837.6	872 848.6

^{1,2,3,4,5,6,7,8} See end notes.

Note: These estimates are not directly comparable to the road lengths reported in the 2013 BITRE Yearbook as the methodology has changed.

na: not available.

Source: PSMA (2010, 2011, 2012, 2013), OpenStreetMap (2012, 2014), ABS (2010), ABS (2012a), BITRE estimates.

Table T 1.5 Selected road 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)
<i>index (2011=100)</i>							
1997–98							57.3
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	101.9	106.1

Note: data are not available for missing years.

Source: For state and national indexes—ABS (2014i); for national (BITRE) index—BITRE (2014i).

Table T 1.6a Rail-related expenditure by Commonwealth, 1998–99 to 2012–13
(constant 2012–13 prices)

Financial year	NSW	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	0.7	0.0	0.0	15.6	16.3	830.6
1999–00	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	79.4	92.4	951.6
2000–01	0.0	0.0	0.0	0.0	0.0	16.3	0.0	0.0	153.7	170.0	834.1
2001–02	0.0	0.0	4.4	0.0	0.0	1.1	0.0	0.0	161.7	167.2	454.2
2002–03	0.0	0.0	3.3	0.0	0.0	0.1	12.6	0.0	7.2	23.2	156.9
2003–04	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	814.5	814.8	124.9
2004–05	0.0	0.0	0.2	23.7	12.6	0.0	16.5	0.0	174.8	227.9	563.8
2005–06	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	358.9	380.2	770.3
2006–07	0.0	16.7	0.0	25.5	0.0	1.9	0.0	0.0	18.4	62.5	1 035.7
2007–08	22.9	89.3	28.6	3.7	32.2	17.5	0.0	0.0	44.9	239.0	1 414.3
2008–09	128.1	275.5	37.3	31.6	22.3	34.7	0.9	0.0	531.3	1 061.8	1 580.0
2009–10	30.7	33.9	423.8	59.3	16.5	51.2	1.8	0.0	890.1	1 507.3	2 192.6
2010–11	0.0	273.7	0.0	149.4	61.2	14.7	0.0	0.0	614.9	1 113.8	1 892.7
2011–12	31.8	480.1	30.0	311.0	123.7	27.5	0.0	0.0	445.3	1 449.3	2 607.8
2012–13	99.4	623.8	34.6	- 16.9	166.8	43.9	0.0	0.0	252.5	1 204.1	2 723.0

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

^b Negative expenditure represents money recovered from state.

Source: BITRE estimates.

Table T 1.6b Rail-related expenditure by State 1998–99 to 2012–13
(constant 2012–13 prices)

Financial year	NSW	VIC	QLD	SA ^c	WA ^c	TAS ^c	NT ^c	ACT	Total Government	Total Public Sector ^a
\$ million										
1998–99	1 487.4	106.2	888.5	48.3	206.0	2.5	20.9	0.0	2 759.9	7 169.3
1999–00	1 139.7	1 512.8	1 080.1	37.6	164.6	- 11.5	17.2	1.6	3 942.2	8 824.6
2000–01	1 531.1	1 510.0	987.6	81.3	254.4	- 14.8	197.2	0.0	4 546.9	5 662.4
2001–02	1 503.8	1 384.7	911.4	48.5	63.2	0.3	446.9	0.0	4 358.8	8 107.3
2002–03	1 726.8	1 263.4	953.5	79.9	161.1	- 0.1	20.2	0.0	4 204.8	8 806.3
2003–04	1 800.8	3 248.8	930.3	41.2	181.2	0.0	6.9	0.0	6 209.1	7 358.8
2004–05	1 896.6	1 700.8	1 021.6	- 15.8	123.8	5.3	- 11.3	0.0	4 721.0	8 343.4
2005–06	2 177.7	2 040.8	965.1	- 1.1	125.7	3.8	0.0	0.0	5 311.9	8 050.6
2006–07	3 241.4	2 287.4	1 054.9	28.5	100.8	0.5	0.0	0.0	6 713.5	9 859.7
2007–08	2 299.5	2 139.2	1 021.5	14.7	94.9	6.5	0.0	0.0	5 576.3	9 863.6
2008–09	2 938.3	1 777.8	553.6	139.2	62.6	34.9	- 0.9	0.0	5 505.6	11 080.0
2009–10	3 484.4	2 823.2	45.8	335.9	71.9	4.8	- 1.8	0.0	6 764.2	11 834.8
2010–11	2 681.0	2 373.8	174.7	151.3	5.9	22.9	19.3	0.0	5 428.9	10 687.1
2011–12	3 113.4	2 476.3	356.6	109.5	- 82.8	- 2.5	0.0	0.0	5 970.5	9 200.8
2012–13	3 377.6	2 592.2	876.4	491.9	- 120.8	- 23.9	0.0	0.0	7 193.4	8 531.9

^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 (2014f), BITRE estimates.

Table T 1.6c Rail-related expenditure by All Government, 1998–99 to 2012–13
(constant 2012–13 prices)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Public Corporations	Total Government ^d	Total Public Sector ^{a,e}
\$ million											
1998–99	1 487.4	106.2	888.5	48.3	206.0	3.2	20.9	0.0	8 083.8	2 776.2	7 999.9
1999–00	1 139.7	1 512.8	1 080.1	37.6	164.6	1.6	17.2	1.6	9 500.2	4 034.7	9 776.2
2000–01	1 531.1	1 510.0	987.6	81.3	254.4	1.5	197.2	0.0	5 540.3	4 717.0	6 496.4
2001–02	1 503.8	1 384.7	915.8	48.5	63.2	1.5	446.9	0.0	7 073.5	4 526.0	8 561.5
2002–03	1 726.8	1 263.4	956.8	79.9	161.1	0.0	32.8	0.0	8 608.4	4 228.0	8 963.1
2003–04	1 800.8	3 248.8	930.6	41.2	181.2	0.0	6.9	0.0	8 184.6	7 023.9	7 483.7
2004–05	1 896.6	1 700.8	1 021.8	7.9	136.3	5.3	5.3	0.0	9 311.2	4 948.9	8 907.3
2005–06	2 177.7	2 040.8	965.1	20.1	125.7	3.8	0.0	0.0	9 555.4	5 692.0	8 820.9
2006–07	3 241.4	2 304.1	1 054.9	54.0	100.8	2.4	0.0	0.0	11 405.5	6 776.1	10 895.4
2007–08	2 322.4	2 228.5	1 050.1	18.3	127.1	24.0	0.0	0.0	11 603.9	5 815.3	11 277.9
2008–09	3 066.5	2 053.4	590.9	170.8	84.9	69.6	0.0	0.0	14 000.4	6 567.3	12 660.0
2009–10	3 515.1	2 857.1	469.5	395.2	88.3	56.0	0.0	0.0	13 607.0	8 271.4	14 027.4
2010–11	2 681.0	2 647.5	174.7	300.7	67.1	37.6	19.3	0.0	13 229.3	6 542.8	12 579.8
2011–12	3 145.2	2 956.4	386.5	420.5	41.0	25.0	0.0	0.0	11 605.9	7 419.8	11 808.6
2012–13	3 477.0	3 216.0	911.0	475.0	46.0	20.0	0.0	0.0	10 355.0	8 397.5	11 254.9

^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 (2014f), BITRE estimates.

Table T 1.6d Rail-related expenditure by All Government and Private Sector, 1998–99 to 2012–13 (constant 2012–13 prices)

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total Government and Private Sector ^d	Total Public and Private Sector ^{a,e}
\$ million										
1998–99	1 487.4	106.2	888.5	48.3	206.0	3.2	20.9	0.0	2 776.2	7 999.9
1999–00	1 139.7	1 512.8	1 080.1	37.6	164.6	1.6	17.2	1.6	4 034.7	9 776.2
2000–01	1 531.1	1 510.0	987.6	81.3	254.4	1.5	197.2	0.0	4 717.0	6 496.4
2001–02	1 506.7	1 408.2	915.8	48.5	63.2	1.5	446.9	0.0	4 552.5	8 587.9
2002–03	1 726.8	1 263.4	956.8	79.9	161.1	0.0	32.8	0.0	4 228.0	8 963.1
2003–04	1 800.8	3 758.1	930.6	41.2	181.2	0.0	6.9	0.0	7 533.1	7 992.9
2004–05	1 896.6	1 700.8	1 021.8	7.9	136.3	5.3	5.3	0.0	4 948.9	8 907.3
2005–06	2 177.7	2 040.8	965.1	20.1	125.7	3.8	0.0	0.0	5 692.0	8 820.9
2006–07	3 241.4	2 304.1	1 054.9	54.0	100.8	2.4	0.0	0.0	6 776.1	10 895.4
2007–08	2 322.4	2 235.4	1 050.1	18.3	127.1	24.0	0.0	0.0	5 822.2	11 284.7
2008–09	3 066.5	2 053.4	590.9	170.8	84.9	69.6	0.0	0.0	6 567.3	12 660.0
2009–10	3 515.1	2 857.1	469.5	395.2	88.3	56.0	0.0	0.0	8 271.4	14 027.4
2010–11	2 681.0	2 647.5	174.7	300.7	67.1	37.6	19.3	0.0	6 542.8	12 579.8
2011–12	3 145.2	2 956.4	386.5	420.5	41.0	25.0	0.0	0.0	7 419.8	11 808.6
2012–13	3 477.0	3 233.0	911.0	475.0	46.0	20.0	0.0	0.0	8 414.5	11 271.9

^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 (2014f), BITRE estimates.

CHAPTER 2

Freight

Table T 2.1a Total, bulk and non-bulk domestic freight, by transport mode—bulk

Financial year	Goods moved (billion tkm)				Goods moved (million tonnes)			
	Road	Rail	Coastal shipping	Total freight task	Road	Rail	Coastal shipping	Total freight weight
1970–71	7.6	26.1						
1971–72	8.1	29.3						
1972–73	8.5	32.7						
1973–74	9.5	40.2						
1974–75	9.9	45.3						
1975–76	10.5	41.4						
1976–77	11.5	43.7						
1977–78	11.9	45.2						
1978–79	12.9	43.9						
1979–80	14.5	47.9						
1980–81	16.0	50.6						
1981–82	17.3	51.2						
1982–83	17.4	47.9						
1983–84	18.6	51.8						
1984–85	20.3	58.8			309.2			
1985–86	22.1	62.0			305.3			
1986–87	22.3	64.3			301.3			
1987–88	24.1	64.5			297.4			
1988–89	26.0	60.9			301.6			
1989–90	27.6	68.4			305.9			
1990–91	26.7	72.0			310.1			
1991–92	26.3	79.6			324.4			
1992–93	27.7	79.0			338.7			
1993–94	28.7	81.6			353.0			
1994–95	31.5	84.5			367.4			
1995–96	33.4	89.4	102.4	225.8	379.5		43.5	
1996–97	34.7	97.4	109.0	241.9	391.7		44.7	
1997–98	37.6	100.1	112.1	249.3	403.9		47.6	
1998–99	39.4	101.6	104.4	246.1	439.5		43.3	
1999–00	41.0	106.2	102.6	250.6	440.7		45.1	
2000–01	41.5	109.0	97.1	248.8	444.6		45.3	
2001–02	43.1	120.9	102.9	268.1	499.2		46.1	
2002–03	45.2	130.1	106.4	282.4	465.9		45.7	
2003–04	47.3		108.3		508.8		45.5	
2004–05	49.2		106.6		526.8		45.9	
2005–06	50.9		115.4		553.2		48.6	
2006–07	53.2		118.0		643.8		49.3	
2007–08	55.8	⁹ 172.1	115.9	343.8		⁹ 642.8	51.2	
2008–09	54.5	207.6	100.0	362.0		705.0	44.6	
2009–10	55.6	230.5	105.0	391.1	627.6	798.8	44.4	1 470.7
2010–11	57.3	¹⁰ 233.1	100.1	390.5			42.1	
2011–12	59.8	¹⁰ 259.5	92.8	412.1	684.0		42.5	
2012–13	61.1		88.6			1 013.0	41.4	

^{9,10} See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2013d), ARA (2008), ARA (2013), BTRE (2006a), BITRE (2012b), BITRE (2012c), BITRE (2014a), BITRE (2014b), BITRE (2014g), BITRE (2014j), BITRE (2014m) and BITRE estimates.

Table T 2.1b Total, bulk and non-bulk 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	Road	Rail	Coastal shipping	Air freight	Total freight weight
1970–71	17.8	13.6								
1971–72	18.9	13.4								
1972–73	19.9	14.0								
1973–74	22.2	13.9								
1974–75	23.2	13.7								
1975–76	24.5	14.2								
1976–77	26.8	14.0								
1977–78	27.7	14.6								
1978–79	30.2	15.9								
1979–80	33.7	15.8								
1980–81	37.3	15.1								
1981–82	40.4	14.1								
1982–83	40.7	12.0								
1983–84	43.4	13.6								
1984–85	47.4	13.9				721.5				
1985–86	51.5	15.4				712.3				
1986–87	52.0	16.1				703.1				
1987–88	56.2	17.4				693.9				
1988–89	60.7	19.7				703.8				
1989–90	64.3	19.5				713.7				
1990–91	62.4	19.2				723.5				
1991–92	61.4	19.7				756.9				
1992–93	64.5	21.8				790.3				
1993–94	67.0	22.7				823.7				
1994–95	73.4	21.7				857.2				
1995–96	77.9	20.9	3.7		104.0	885.6		4.3		
1996–97	80.9	22.3	3.6		108.9	914.0		4.4		
1997–98	87.6	25.5	4.8		116.8	942.4		4.9		
1998–99	92.0	26.3	4.4		124.2	1 025.5		5.1		
1999–00	95.7	27.4	6.3		131.4	1 028.3		6.2		
2000–01	96.8	28.0	7.4		135.1	1 037.4		6.7		
2001–02	100.6	29.6	7.6		140.9	1 164.8		6.3		
2002–03	105.4	31.0	8.5		146.8	1 087.1		7.1		
2003–04	110.5		8.8			1 187.2		7.7		
2004–05	114.9		7.5			1 229.2		7.7		
2005–06	118.7		6.8	0.4		1 290.8		6.7	0.3	
2006–07	124.2		8.1	0.4		1 502.2		7.1	0.3	
2007–08	130.1	⁹ 31.3	9.6	0.4	171.4		⁹ 19.5	8.3	0.3	
2008–09	127.1	29.6	7.6	0.3	164.6		17.5	7.0	0.2	
2009–10	129.8	28.1	9.7	0.3	168.0	1 464.4	16.5	7.7	0.2	1 488.8
2010–11	133.8	¹⁰ 28.4	10.8	0.3	173.3			9.3	0.3	
2011–12	139.5	¹⁰ 31.1	8.0	0.3	178.9	1 596.0		7.8	0.2	
2012–13	142.5		8.2	0.3			27.6	7.6	0.2	

^{9, 10} See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2013d), ARA (2008), ARA (2013), BTRE (2006a), BITRE (2012b), BITRE (2012c), BITRE (2014a), BITRE (2014b), BITRE (2014g), BITRE (2014j), BITRE (2014m) and BITRE estimates.

Table T 2.1c Total, bulk and non-bulk 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	Coastal shipping
1970–71	25.4	39.7	72.0		137.1					
1971–72	27.0	42.7	83.2		152.8			44.6		
1972–73	28.5	46.7	89.5		164.7			43.3		
1973–74	31.8	54.1	96.1		181.9			46.3		
1974–75	33.1	59.0	101.2		193.3			46.4		
1975–76	35.0	55.6	104.6		195.3			47.5		
1976–77	38.3	57.7	102.3		198.3			47.2		
1977–78	39.6	59.8	105.1		204.5			48.0		
1978–79	43.1	59.8	104.7		207.6			47.4		
1979–80	48.2	63.7	105.1		217.0			48.1		
1980–81	53.3	65.7	110.3		229.3			47.3		
1981–82	57.7	65.4	97.8		220.9			43.1		
1982–83	58.2	59.8	80.9		198.9			38.3		
1983–84	62.0	65.4	94.3		221.7			42.7		
1984–85	67.7	72.6	96.3		236.6	1 030.6		42.7		
1985–86	73.5	77.3	101.8		252.6	1 017.5		44.7		
1986–87	74.3	80.4	95.2		249.9	1 004.4		44.4		
1987–88	80.2	81.9	93.6		255.7	991.3		43.2		
1988–89	86.7	80.6	90.7		258.0	1 005.4		43.0		
1989–90	91.9	87.9	94.2		274.0	1 019.5		44.5		
1990–91	89.1	91.1	93.8		274.1	1 033.6		44.2		
1991–92	87.8	99.3	96.4		283.5	1 081.3		43.6		
1992–93	92.2	100.8	96.0		289.0	1 129.1		44.2		
1993–94	95.8	104.2	98.8		298.8	1 176.8		45.3		
1994–95	104.9	106.2	109.2		320.3	1 224.5		49.2		
1995–96	111.3	110.3	106.1		327.6	1 265.1		47.8		
1996–97	115.5	119.6	112.6		347.8	1 305.7		49.1		
1997–98	125.2	125.6	116.9		367.7	1 346.3		52.5		
1998–99	131.5	128.0	108.8		368.2	1 465.0		48.4		
1999–00	136.8	133.6	108.9		379.2	1 469.0		51.3		
2000–01	138.3	136.9	104.5		379.7	1 482.0		52.0		
2001–02	143.7	150.5	110.4		404.5	1 664.0		52.4		
2002–03	150.6	159.8	114.9		425.3	1 553.0	575.7	52.8		2 181.5
2003–04	157.8	168.0	117.1		442.9	1 696.0	590.9	53.2		2 340.1
2004–05	164.1	183.0	114.1		461.2	1 756.0	634.3	53.7		2 443.9
2005–06	169.6	189.0	122.3	0.4	484.7	1 844.0	641.2	55.2	0.3	2 540.7
2006–07	177.5	198.7	126.0	0.4	502.5	2 146.0	665.6	56.4	0.3	2 868.3
2007–08	185.9	⁹ 203.5	125.5	0.4	515.3		⁹ 662.3	59.5	0.3	
2008–09	181.6	237.2	107.6	0.3	526.6		722.5	51.6	0.2	
2009–10	185.4	258.6	114.8	0.3	559.1	2 092.0	815.3	52.1	0.2	2 959.6
2010–11	191.2	¹⁰ 261.4	110.9	0.3	563.9			51.5	0.3	
2011–12	199.3	¹⁰ 290.6	100.9	0.3	591.0	2 280.0		50.2	0.2	
2012–13	203.6		96.9	0.3		1 040.6	49.1	0.2		

^{9,10} See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2013d), ARA (2008), ARA (2013), BTRE (2006a), BITRE (2012b), BITRE (2012c), BITRE (2014a), BITRE (2014b), BITRE (2014g), BITRE (2014j), BITRE (2014m) 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
<i>billion tonne-kilometres</i>									
1972–73	10.8	7.1	4.2	2.8	2.7	0.4	0.3	0.1	28.5
1973–74	12.0	7.9	4.7	3.1	3.1	0.5	0.3	0.1	31.8
1974–75	12.5	8.2	5.0	3.2	3.3	0.6	0.4	0.1	33.1
1975–76	13.2	8.7	5.3	3.2	3.4	0.6	0.4	0.1	35.0
1976–77	14.2	9.5	6.0	3.4	3.9	0.7	0.4	0.2	38.3
1977–78	14.5	9.8	6.4	3.5	4.1	0.7	0.4	0.2	39.6
1978–79	15.6	10.6	7.1	3.7	4.6	0.8	0.5	0.2	43.1
1979–80	17.3	11.9	8.2	4.0	5.3	1.0	0.6	0.2	48.2
1980–81	18.8	13.1	9.3	4.2	6.1	1.1	0.6	0.2	53.3
1981–82	19.9	13.6	10.3	4.1	7.7	1.2	0.7	0.2	57.7
1982–83	19.7	13.3	10.6	4.0	8.4	1.3	0.7	0.2	58.2
1983–84	21.4	13.8	11.0	4.3	9.1	1.3	0.8	0.2	62.0
1984–85	23.1	14.5	12.2	4.7	10.7	1.5	0.9	0.2	67.7
1985–86	25.1	15.7	13.1	5.1	11.6	1.6	1.0	0.3	73.5
1986–87	25.4	15.9	13.2	5.2	11.7	1.6	1.0	0.3	74.3
1987–88	27.5	17.1	14.1	5.8	12.6	1.7	1.1	0.3	80.2
1988–89	29.7	18.4	15.2	6.3	13.7	1.8	1.3	0.3	86.7
1989–90	31.4	19.5	16.1	6.8	14.6	2.0	1.4	0.3	91.9
1990–91	30.8	19.0	15.5	6.4	13.8	1.9	1.4	0.3	89.1
1991–92	30.4	18.8	15.1	6.4	13.5	1.8	1.4	0.3	87.8
1992–93	32.0	19.6	15.5	7.2	14.4	1.8	1.5	0.3	92.2
1993–94	33.3	20.3	16.0	7.5	14.8	1.9	1.6	0.3	95.8
1994–95	36.1	22.0	17.6	8.4	16.7	2.1	1.7	0.3	104.9
1995–96	38.6	23.3	18.6	9.0	17.4	2.1	1.9	0.3	111.3
1996–97	40.5	24.2	19.3	9.3	17.8	2.2	2.0	0.3	115.5
1997–98	43.8	25.9	21.2	9.9	19.4	2.4	2.3	0.3	125.2
1998–99	47.2	27.3	22.2	10.0	19.6	2.6	2.4	0.3	131.5
1999–00	49.1	28.6	23.1	10.7	19.8	2.8	2.4	0.3	136.8
2000–01	49.6	29.2	23.6	10.6	19.8	2.8	2.5	0.3	138.3
2001–02	50.6	30.7	25.0	11.0	20.6	2.9	2.6	0.3	143.7
2002–03	53.3	32.3	26.4	11.3	21.5	3.1	2.3	0.3	150.6
2003–04	55.7	34.0	28.2	12.0	23.1	3.3	1.3	0.3	157.8
2004–05	57.4	35.2	30.0	12.7	23.9	3.2	1.3	0.3	164.1
2005–06	57.8	36.4	31.0	13.3	26.2	3.3	1.4	0.3	169.6
2006–07	58.9	37.7	32.2	13.8	29.9	3.3	1.5	0.3	177.5
2007–08	61.0	39.3	33.7	14.4	32.2	3.4	1.6	0.3	185.9
2008–09	59.7	38.6	32.6	14.1	31.5	3.2	1.6	0.3	181.6
2009–10	60.1	39.2	33.5	14.3	33.2	3.3	1.6	0.3	185.4
2010–11	61.6	40.2	34.2	14.9	35.2	3.2	1.6	0.3	191.2
2011–12	63.8	41.7	35.4	15.5	37.5	3.2	1.7	0.4	199.3
2012–13	65.0	42.6	35.8	15.9	39.0	3.2	1.7	0.4	203.6

¹¹ See end notes.

Source: BTRE (2006a) and BITRE (2014a).

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
<i>billion tonne-kilometres</i>									
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

⁹ See end notes.

na: not applicable.

Source: ARA (2008), BTRE (2006a) and BITRE (2012c).

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
<i>billion tonne-kilometres</i>									
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	3.7	na	114.1
2005–06	5.3	9.0	41.2	8.9	50.9	4.5	2.5	na	122.3
2006–07	6.2	9.1	42.0	9.3	54.9	4.4	0.1	na	126.0
2007–08	6.0	8.0	43.8	10.5	52.5	4.5	0.0	na	125.5
2008–09	3.0	6.2	42.0	9.3	40.1	3.9	2.8	na	107.6
2009–10	5.9	6.1	41.2	8.2	49.7	3.5	0.0	na	114.8
2010–11	4.8	5.7	42.5	8.5	45.6	3.5	0.2	na	110.9
2011–12	5.3	5.8	44.0	9.1	32.9	3.3	0.2	na	100.9
2012–13	4.4	5.4	47.6	8.6	27.6	3.0	0.0	na	96.9

na: not applicable.

Source: BITRE (2014b).

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
<i>billion tonne-kilometres</i>									
1995–96	61.4	36.7	71.1	25.9	122.4	6.2	3.5	0.3	327.6
1996–97	65.9	38.5	75.8	29.1	128.2	5.8	4.2	0.3	347.8
1997–98	69.4	40.7	78.8	29.4	138.8	5.3	5.1	0.3	367.7
1998–99	71.5	39.8	80.3	29.6	134.8	6.7	5.3	0.3	368.2
1999–00	75.3	42.3	88.9	29.9	129.4	7.3	5.7	0.3	379.1
2000–01	78.0	43.6	93.7	29.6	122.4	6.4	5.7	0.3	379.7
2001–02	78.9	42.8	99.2	31.6	137.3	9.4	5.1	0.3	404.6
2002–03	83.2	45.6	103.6	33.0	143.6	9.7	4.7	0.3	423.6
2003–04	86.4	46.6	110.4	32.5	153.3	9.6	3.9	0.3	443.0
2004–05	90.8	48.4	119.8	34.6	153.2	8.8	5.0	0.3	461.2
2005–06	92.1	52.3	126.6	36.0	161.0	8.7	3.9	0.3	480.9
2006–07	95.6	53.9	131.4	37.5	173.0	8.7	1.6	0.3	502.2
2007–08	95.9	62.6	129.8	37.7	208.4	8.3	4.0	0.3	514.9
2008–09	90.1	58.3	130.6	34.8	225.2	7.5	4.3	0.3	526.3
2009–10	94.2	58.0	135.3	33.0	253.8	6.9	4.9	0.3	558.8

Source: ARA (2008), BTRE (2006a), BITRE (2012c), BITRE (2014a), BITRE (2014b) 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
<i>billion tonne-kilometres</i>									
1971–72	7.5	5.4	3.6	2.3	2.3	0.4	0.1	0.1	21.6
1972–73	7.5	5.5	3.6	2.2	2.4	0.4	0.1	0.1	21.8
1973–74	8.1	6.0	4.1	2.4	2.7	0.5	0.1	0.1	24.0
1974–75	8.3	6.2	4.3	2.4	2.9	0.6	0.1	0.1	24.8
1975–76	8.5	6.4	4.6	2.4	3.1	0.6	0.1	0.1	25.9
1976–77	9.2	7.1	5.3	2.5	3.5	0.7	0.2	0.1	28.6
1977–78	9.4	7.3	5.6	2.6	3.7	0.7	0.2	0.2	29.7
1978–79	10.1	8.0	6.3	2.7	4.2	0.8	0.2	0.2	32.3
1979–80	11.1	8.8	7.2	2.8	4.8	1.0	0.2	0.2	35.9
1980–81	12.1	9.8	8.3	2.9	5.4	1.1	0.3	0.2	40.0
1981–82	12.8	10.1	9.2	2.6	7.0	1.2	0.4	0.2	43.5
1982–83	13.3	10.1	9.6	2.7	7.8	1.3	0.4	0.2	45.4
1983–84	13.5	9.9	9.7	2.7	8.3	1.3	0.4	0.2	46.1
1984–85	14.9	10.6	10.9	3.0	9.8	1.5	0.5	0.2	51.3
1985–86	16.0	11.3	11.7	3.2	10.5	1.6	0.5	0.2	55.0
1986–87	16.1	11.4	11.8	3.2	10.5	1.6	0.6	0.2	55.5
1987–88	17.1	12.1	12.5	3.4	11.2	1.7	0.6	0.3	58.9
1988–89	18.3	12.9	13.4	3.6	12.0	1.8	0.7	0.3	63.1
1989–90	19.4	13.7	14.2	3.8	12.7	2.0	0.8	0.3	66.9
1990–91	18.7	13.3	13.6	3.7	12.2	1.9	0.8	0.3	64.6
1991–92	18.2	12.9	13.2	3.6	11.8	1.8	0.8	0.3	62.7
1992–93	18.6	13.2	13.5	3.7	12.0	1.8	0.9	0.3	64.0
1993–94	19.1	13.6	13.8	3.8	12.3	1.9	0.9	0.3	65.7
1994–95	21.0	14.8	15.3	4.1	13.6	2.1	1.1	0.2	72.2
1995–96	22.0	15.4	16.0	4.3	14.2	2.1	1.1	0.3	75.5
1996–97	22.5	15.8	16.4	4.4	14.6	2.2	1.2	0.2	77.4
1997–98	24.5	16.9	18.2	4.8	16.1	2.4	1.4	0.2	84.5
1998–99	26.4	17.6	18.9	4.9	16.5	2.6	1.4	0.2	88.6
1999–00	26.7	18.2	19.5	5.6	17.0	2.8	1.4	0.3	91.6
2000–01	26.5	18.4	19.9	5.7	17.2	2.8	1.4	0.2	92.2
2001–02	26.2	19.3	21.1	5.9	18.1	2.9	1.5	0.2	95.2
2002–03	27.2	20.1	22.3	6.2	18.9	3.1	1.5	0.3	99.7
2003–04	28.0	21.1	23.8	6.6	20.3	3.3	0.4	0.3	103.7
2004–05	28.0	21.6	25.4	6.8	20.8	3.2	0.4	0.3	106.7
2005–06	26.8	22.1	26.1	7.1	22.9	3.3	0.5	0.3	109.0
2006–07	26.7	22.8	27.1	7.3	26.5	3.3	0.5	0.3	114.3
2007–08	27.3	23.7	28.4	7.6	28.5	3.4	0.5	0.3	119.7
2008–09	25.8	23.0	27.2	7.3	28.0	3.2	0.5	0.3	115.2
2009–10	25.9	23.5	28.0	7.5	29.6	3.3	0.6	0.3	118.7
2010–11	25.8	23.8	28.5	7.6	31.2	3.2	0.6	0.3	121.0
2011–12	26.0	24.4	29.4	7.9	33.4	3.2	0.6	0.3	125.1
2012–13	25.6	24.6	29.5	7.9	34.6	3.2	0.6	0.4	126.2

Source: BTRE (2006a) and BITRE (2014a).

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

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne-kilometres</i>									
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 (2012c).

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

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne-kilometres</i>									
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	0.0	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	0.1	4.9	0.1	0.0	na	37.5
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	0.2	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	39.0	0.2	1.5	0.1	0.0	na	40.8

na: not applicable.

Source: BITRE (2014b).

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

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne-kilometres</i>									
1971–72	2.8	1.4	0.4	0.5	0.2	na	0.2	0.0	5.4
1972–73	3.4	1.7	0.5	0.6	0.3	na	0.2	0.0	6.6
1973–74	3.9	1.9	0.6	0.8	0.4	na	0.2	0.0	7.8
1974–75	4.2	2.1	0.7	0.8	0.4	na	0.2	0.0	8.4
1975–76	4.7	2.3	0.7	0.8	0.3	na	0.3	0.0	9.2
1976–77	4.9	2.4	0.8	0.9	0.4	na	0.3	0.0	9.7
1977–78	5.0	2.5	0.8	0.9	0.4	na	0.3	0.0	9.8
1978–79	5.5	2.7	0.9	1.0	0.5	na	0.3	0.0	10.8
1979–80	6.2	3.0	1.0	1.2	0.6	na	0.3	0.0	12.3
1980–81	6.7	3.3	1.0	1.3	0.6	na	0.3	0.0	13.3
1981–82	7.1	3.5	1.1	1.4	0.7	na	0.4	0.0	14.2
1982–83	6.5	3.2	1.0	1.3	0.6	na	0.3	0.0	12.8
1983–84	7.9	3.8	1.2	1.6	0.9	na	0.4	0.0	15.9
1984–85	8.2	4.0	1.3	1.7	0.9	na	0.4	0.0	16.4
1985–86	9.1	4.4	1.4	2.0	1.1	na	0.5	0.0	18.5
1986–87	9.3	4.5	1.4	2.0	1.2	na	0.5	0.0	18.8
1987–88	10.4	5.0	1.6	2.4	1.4	na	0.5	0.0	21.3
1988–89	11.4	5.5	1.8	2.7	1.7	na	0.5	0.0	23.7
1989–90	12.0	5.7	1.9	2.9	1.9	na	0.6	0.0	25.0
1990–91	12.0	5.8	1.9	2.7	1.6	na	0.6	0.0	24.6
1991–92	12.2	5.8	1.9	2.9	1.7	na	0.6	0.0	25.1
1992–93	13.3	6.3	2.1	3.5	2.3	na	0.6	0.0	28.2
1993–94	14.2	6.7	2.2	3.8	2.5	na	0.7	0.0	30.1
1994–95	15.1	7.2	2.4	4.3	3.0	na	0.7	0.0	32.7
1995–96	16.7	7.9	2.6	4.7	3.2	na	0.8	0.0	35.8
1996–97	17.9	8.4	2.8	4.9	3.2	na	0.8	0.0	38.1
1997–98	19.3	9.0	3.1	5.1	3.3	na	0.9	0.0	40.7
1998–99	20.8	9.7	3.3	5.1	3.0	na	0.9	0.0	42.9
1999–00	22.3	10.4	3.6	5.1	2.8	na	1.0	0.0	45.2
2000–01	23.1	10.8	3.7	4.9	2.6	na	1.0	0.0	46.1
2001–02	24.5	11.4	3.9	5.1	2.5	na	1.1	0.0	48.5
2002–03	26.1	12.1	4.1	5.1	2.6	na	0.8	0.0	50.8
2003–04	27.7	12.9	4.4	5.4	2.8	na	0.9	0.0	54.1
2004–05	29.4	13.6	4.6	5.9	3.1	na	0.9	0.0	57.4
2005–06	31.0	14.3	4.9	6.2	3.3	na	0.9	0.0	60.6
2006–07	32.2	14.9	5.1	6.5	3.4	na	1.0	0.0	63.1
2007–08	33.7	15.6	5.3	6.8	3.7	na	1.0	0.1	66.2
2008–09	33.9	15.6	5.4	6.8	3.6	na	1.0	0.1	66.3
2009–10	34.2	15.7	5.4	6.8	3.6	na	1.0	0.1	66.7
2010–11	35.8	16.4	5.7	7.3	3.9	na	1.1	0.1	70.2
2011–12	37.8	17.3	6.0	7.7	4.1	na	1.1	0.1	74.2
2012–13	39.4	18.0	6.3	8.0	4.4	na	1.2	0.1	77.4

na: not applicable.

Source: BTRE (2006a) and BITRE (2014a).

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

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne-kilometres</i>									
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	3.6	na	81.5
2005–06	5.3	9.0	9.9	8.7	47.2	4.4	2.5	na	86.9
2006–07	6.2	8.9	9.7	9.2	50.0	4.3	0.1	na	88.4
2007–08	6.0	7.9	11.7	10.3	46.9	4.4	0.0	na	87.2
2008–09	3.0	6.1	9.9	9.2	35.9	3.8	2.8	na	70.7
2009–10	5.9	6.1	8.8	8.1	48.3	3.4	0.0	na	80.6
2010–11	4.7	5.7	10.1	8.4	44.0	3.4	0.2	na	76.4
2011–12	5.2	5.8	11.0	8.8	31.7	3.2	0.1	na	65.8
2012–13	4.4	5.3	8.5	8.4	26.1	2.9	0.0	na	55.8

na: not applicable.

Source: BITRE (2014b).

Table T 2.5 Urban road freight by capital city

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Total
<i>billion tonne kilometres</i>									
1971–72	3.1	2.1	0.7	0.7	0.9	0.1	0.1	0.1	7.8
1972–73	3.2	2.3	0.8	0.8	0.9	0.1	0.1	0.1	8.2
1973–74	3.4	2.4	0.9	0.8	1.0	0.2	0.1	0.1	8.9
1974–75	3.5	2.5	0.9	0.9	1.0	0.2	0.1	0.1	9.2
1975–76	3.7	2.7	1.0	0.9	1.1	0.2	0.1	0.1	9.6
1976–77	3.8	2.8	1.1	0.9	1.2	0.2	0.1	0.1	10.3
1977–78	3.9	2.9	1.2	1.0	1.2	0.2	0.1	0.2	10.6
1978–79	4.1	3.1	1.4	1.0	1.3	0.2	0.1	0.2	11.4
1979–80	4.5	3.4	1.6	1.0	1.4	0.2	0.1	0.2	12.4
1980–81	4.7	3.7	1.9	1.0	1.5	0.2	0.1	0.2	13.3
1981–82	5.0	3.9	2.1	1.0	1.6	0.3	0.2	0.2	14.1
1982–83	5.0	3.9	2.1	1.0	1.6	0.3	0.2	0.2	14.2
1983–84	5.2	4.2	2.2	1.1	1.6	0.3	0.2	0.2	15.0
1984–85	5.6	4.5	2.4	1.2	1.8	0.3	0.2	0.2	16.1
1985–86	5.9	4.9	2.6	1.2	1.9	0.3	0.2	0.2	17.3
1986–87	6.0	5.0	2.6	1.3	1.9	0.3	0.2	0.2	17.6
1987–88	6.4	5.4	2.8	1.3	2.1	0.4	0.2	0.3	18.8
1988–89	6.7	5.8	2.9	1.4	2.2	0.4	0.2	0.3	19.8
1989–90	7.1	6.2	3.1	1.5	2.4	0.4	0.3	0.3	21.3
1990–91	7.0	6.2	3.1	1.5	2.4	0.4	0.3	0.3	21.0
1991–92	6.9	6.2	3.1	1.5	2.3	0.3	0.2	0.3	20.8
1992–93	7.2	6.5	3.2	1.5	2.5	0.3	0.2	0.3	21.7
1993–94	7.4	6.8	3.4	1.6	2.6	0.3	0.2	0.3	22.5
1994–95	7.9	7.3	3.6	1.7	2.7	0.3	0.2	0.2	24.0
1995–96	8.2	7.7	3.9	1.8	2.9	0.3	0.2	0.3	25.2
1996–97	8.5	8.0	4.1	1.8	3.0	0.3	0.2	0.2	26.1
1997–98	8.6	8.2	4.2	1.9	3.0	0.3	0.2	0.2	26.7
1998–99	9.0	8.7	4.7	1.9	3.2	0.3	0.2	0.2	28.2
1999–00	9.3	9.1	5.0	2.0	3.4	0.3	0.2	0.3	29.5
2000–01	9.4	9.3	5.2	2.0	3.5	0.3	0.2	0.2	30.1
2001–02	9.7	9.7	5.7	2.1	3.6	0.3	0.2	0.2	31.5
2002–03	10.1	10.0	6.1	2.2	3.8	0.3	0.2	0.3	32.9
2003–04	10.3	10.3	6.5	2.3	4.1	0.3	0.2	0.3	34.3
2004–05	10.6	10.5	7.0	2.4	4.2	0.4	0.2	0.3	35.6
2005–06	10.8	10.8	7.2	2.5	4.6	0.4	0.3	0.3	36.8
2006–07	11.0	11.2	7.8	2.7	5.2	0.4	0.3	0.3	38.6
2007–08	11.3	11.6	8.2	2.8	5.4	0.4	0.3	0.3	40.3
2008–09	11.3	11.6	8.3	2.8	5.5	0.4	0.3	0.3	40.6
2009–10	11.5	11.8	8.6	2.9	5.7	0.4	0.3	0.3	41.5
2010–11	11.6	12.1	9.0	3.0	6.0	0.4	0.3	0.3	42.6
2011–12	12.0	12.5	9.5	3.1	6.4	0.4	0.3	0.3	44.4
2012–13	12.2	12.8	9.9	3.2	6.6	0.4	0.3	0.4	45.8

Source: BTRE (2006a) and BITRE (2014a).

CHAPTER 3

Passengers

Table T 3.1 Total passenger travel by transport mode

Financial year	Passenger cars	Buses	Rail	Air	Other ¹²	Total
<i>billion passenger kilometres</i>						
1970–71	102.36	7.26	12.57	5.68	11.31	139.18
1971–72	108.99	7.17	11.43	6.02	12.07	145.68
1972–73	112.91	7.39	11.30	6.44	13.09	151.13
1973–74	120.36	7.41	10.37	7.68	14.56	160.37
1974–75	125.27	7.43	9.92	8.28	15.85	166.76
1975–76	130.14	7.42	8.97	8.29	16.49	171.32
1976–77	135.97	7.49	8.85	7.99	18.03	178.33
1977–78	140.53	7.59	8.68	8.90	18.94	184.63
1978–79	144.42	7.69	8.50	9.40	19.31	189.32
1979–80	144.95	8.15	8.82	10.36	19.20	191.47
1980–81	147.15	8.72	9.26	10.70	19.62	195.45
1981–82	154.30	9.23	9.03	11.15	20.01	203.73
1982–83	154.81	10.47	8.88	10.27	19.73	204.16
1983–84	161.85	11.72	8.83	10.64	20.97	214.00
1984–85	167.94	13.03	8.89	11.34	21.86	223.05
1985–86	173.06	14.00	9.09	12.34	21.99	230.48
1986–87	176.79	15.01	9.35	13.16	22.06	236.37
1987–88	185.48	16.00	9.72	14.46	22.61	248.27
1988–89	194.42	16.86	10.00	15.07	23.55	259.89
1989–90	200.06	17.71	10.04	11.24	23.51	262.56
1990–91	200.49	17.03	10.17	15.95	22.65	266.29
1991–92	204.51	16.56	9.99	20.68	22.75	274.50
1992–93	210.82	16.50	9.78	20.94	23.15	281.18
1993–94	216.15	16.29	9.88	24.36	23.85	290.51
1994–95	222.87	16.11	10.34	26.89	25.15	301.36
1995–96	226.01	16.61	10.57	28.88	25.65	307.72
1996–97	227.68	16.42	10.85	29.86	25.70	310.51
1997–98	229.90	16.57	10.81	30.31	26.42	314.01
1998–99	235.27	16.63	11.03	30.91	26.88	320.72
1999–00	239.81	17.00	11.38	32.69	27.33	328.21
2000–01	237.16	17.27	11.98	35.50	27.61	329.52
2001–02	243.17	17.35	11.82	32.80	28.61	333.74
2002–03	249.45	17.68	11.81	35.58	29.43	343.96
2003–04	261.37	17.77	11.90	40.86	30.35	362.26
2004–05	262.11	17.79	11.86	45.55	30.59	367.90
2005–06	257.29	18.22	12.36	48.28	31.31	367.46
2006–07	260.55	18.49	13.00	52.52	32.53	377.09
2007–08	262.06	18.84	14.01	56.67	34.41	385.99
2008–09	260.95	19.30	14.78	57.96	35.71	388.69
2009–10	262.52	19.80	14.74	59.45	37.96	394.47
2010–11	265.18	20.29	14.97	63.57	39.03	403.04
2011–12	267.14	21.09	15.19	64.77	40.18	408.38
2012–13	267.76	21.40	15.24	67.61	41.34	413.34

¹² See end notes.

Source: BITRE (2014k) and BITRE (2014n).

Table T 3.2 Inter-capital city passenger travel by city pair

Financial year	Syd–Mel	Syd–Can	Syd–Bne	Mel–Adl	Mel–Bne	Syd–Adl
			<i>thousand passenger movements</i>			
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	8 101	7 840	5 331	2 860	3 043	1 650
2007–08	8 301	7 735	5 846	2 903	2 996	1 753
2008–09	8 218	7 944	5 645	2 923	3 027	1 683
2009–10	8 817	8 155	5 815	3 064	3 119	1 897
2010–11	9 186	8 877	5 962	3 124	3 476	1 965
2011–12	8 914	8 987	5 523	2 922	3 465	1 792
2012–13	9 287	9 231	5 643	2 971	3 489	1 822
2013–14	9 517	8 919	5 582	3 092	3 523	1 924

Source: BTRE (2006c), TRA (2014) and BITRE estimates.

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	24.13	2.02	0.24	3.14		1.57	0.10	31.20
1977–78	24.80	2.10	0.24	3.09		1.60	0.11	31.94
1978–79	25.59	2.15	0.25	3.09		1.59	0.11	32.78
1979–80	25.79	2.13	0.27	3.52		1.63	0.12	33.48
1980–81	26.15	2.18	0.29	3.64		1.69	0.13	34.07
1981–82	27.17	2.26	0.32	3.76		1.68	0.14	35.33
1982–83	26.97	2.22	0.33	3.55		1.72	0.15	34.94
1983–84	28.34	2.37	0.34	3.47		1.76	0.15	36.42
1984–85	29.65	2.47	0.34	3.44		1.81	0.15	37.86
1985–86	30.51	2.54	0.31	3.71		1.84	0.16	39.07
1986–87	31.20	2.56	0.29	3.78		1.91	0.17	39.91
1987–88	32.59	2.63	0.27	4.08		1.97	0.15	41.69
1988–89	33.83	2.68	0.27	4.13	0.01	2.00	0.16	43.09
1989–90	34.70	2.63	0.24	4.23	0.01	1.96	0.18	43.95
1990–91	34.69	2.47	0.21	4.30	0.01	2.01	0.15	43.83
1991–92	35.29	2.47	0.20	4.20	0.01	2.01	0.13	44.31
1992–93	36.35	2.51	0.20	4.03	0.01	1.95	0.11	45.17
1993–94	37.20	2.60	0.20	4.13	0.01	1.98	0.11	46.23
1994–95	38.26	2.78	0.19	4.40	0.01	2.02	0.12	47.78
1995–96	38.48	2.91	0.18	4.50	0.01	2.08	0.12	48.30
1996–97	38.43	2.97	0.18	4.64	0.01	2.13	0.13	48.50
1997–98	38.99	3.09	0.17	4.67	0.01	2.18	0.12	49.23
1998–99	39.93	3.19	0.16	4.74	0.02	2.21	0.12	50.38
1999–00	40.94	3.27	0.16	4.90	0.02	2.21	0.12	51.62
2000–01	40.68	3.32	0.16	5.27	0.02	2.21	0.14	51.80
2001–02	41.52	3.40	0.17	4.89	0.02	2.12	0.13	52.24
2002–03	42.18	3.48	0.16	4.89	0.02	2.12	0.13	52.98
2003–04	44.28	3.57	0.17	4.94	0.02	2.10	0.13	55.21
2004–05	44.55	3.56	0.18	4.96	0.02	2.16	0.13	55.57
2005–06	43.70	3.59	0.20	5.05	0.02	2.16	0.13	54.86
2006–07	43.99	3.71	0.22	5.22	0.02	2.20	0.13	55.49
2007–08	44.26	3.89	0.24	5.51	0.02	2.27	0.13	56.32
2008–09	44.20	3.98	0.26	5.49	0.02	2.36	0.13	56.44
2009–10	44.63	4.17	0.28	5.32	0.02	2.36	0.14	56.92
2010–11	45.43	4.29	0.30	5.27	0.02	2.44	0.14	57.89
2011–12	45.63	4.40	0.31	5.47	0.02	2.51	0.14	58.47
2012–13	45.73	4.52	0.32	5.51	0.02	2.53	0.14	58.78

Source: BTRE (2007), BITRE (2014k) and BITRE (2014n).

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
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	34.35
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	0.84	na	39.44
1991–92	33.97	2.73	0.19	1.76	0.59	0.81	na	40.05
1992–93	34.63	2.80	0.20	1.81	0.51	0.81	na	40.76
1993–94	35.30	2.89	0.20	1.81	0.51	0.83	na	41.55
1994–95	36.30	3.02	0.20	1.94	0.51	0.86	na	42.83
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	44.63
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	47.08
2001–02	40.88	3.12	0.21	2.30	0.59	0.94	na	48.04
2002–03	41.64	3.18	0.21	2.34	0.60	0.95	na	48.92
2003–04	43.04	3.26	0.22	2.41	0.60	0.95	na	50.49
2004–05	43.27	3.30	0.24	2.48	0.61	0.94	na	50.83
2005–06	42.80	3.38	0.26	2.78	0.62	0.95	na	50.79
2006–07	42.83	3.52	0.29	3.07	0.63	1.01	na	51.34
2007–08	43.39	3.69	0.31	3.48	0.65	1.10	na	52.62
2008–09	42.89	3.80	0.33	3.72	0.71	1.19	na	52.64
2009–10	43.57	3.99	0.35	3.82	0.70	1.25	na	53.68
2010–11	44.45	4.12	0.37	3.98	0.73	1.31	na	54.95
2011–12	45.04	4.23	0.38	3.86	0.77	1.47	na	55.75
2012–13	45.27	4.31	0.39	3.92	0.73	1.42	na	56.04

na: not applicable.

Source: BTRE (2007), BITRE (2014k) and BITRE (2014n).

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	7.82	0.86	0.14	0.38	0.00	0.49	0.00	9.69
1977–78	8.21	0.95	0.14	0.37	0.00	0.51	0.00	10.18
1978–79	8.60	1.01	0.14	0.35	0.00	0.50	0.00	10.60
1979–80	8.78	1.02	0.15	0.38	0.00	0.49	0.00	10.82
1980–81	9.16	1.03	0.16	0.42	0.00	0.45	0.00	11.22
1981–82	9.88	1.07	0.17	0.46	0.00	0.47	0.00	12.05
1982–83	10.07	1.08	0.17	0.47	0.00	0.49	0.00	12.28
1983–84	10.50	1.21	0.17	0.52	0.00	0.47	0.00	12.87
1984–85	10.82	1.29	0.18	0.55	0.00	0.49	0.00	13.33
1985–86	11.40	1.37	0.17	0.62	0.00	0.49	0.00	14.05
1986–87	11.68	1.43	0.17	0.68	0.00	0.51	0.00	14.47
1987–88	12.39	1.50	0.18	0.74	0.00	0.55	0.00	15.36
1988–89	13.23	1.54	0.21	0.85	0.00	0.61	0.00	16.44
1989–90	13.69	1.54	0.20	0.78	0.00	0.58	0.00	16.79
1990–91	13.94	1.49	0.20	0.79	0.00	0.62	0.00	17.04
1991–92	14.53	1.50	0.21	0.75	0.00	0.64	0.00	17.63
1992–93	15.28	1.53	0.21	0.74	0.00	0.63	0.00	18.39
1993–94	15.80	1.62	0.20	0.72	0.00	0.66	0.00	19.00
1994–95	16.46	1.79	0.19	0.70	0.00	0.72	0.01	19.87
1995–96	16.87	1.93	0.17	0.74	0.00	0.71	0.01	20.43
1996–97	17.01	1.99	0.17	0.79	0.00	0.71	0.01	20.68
1997–98	17.34	2.14	0.16	0.80	0.00	0.71	0.01	21.16
1998–99	17.70	2.19	0.15	0.81	0.00	0.65	0.01	21.51
1999–00	18.21	2.25	0.15	0.87	0.00	0.69	0.01	22.18
2000–01	18.24	2.28	0.16	0.94	0.00	0.70	0.01	22.33
2001–02	18.81	2.40	0.17	0.96	0.00	0.72	0.01	23.07
2002–03	19.36	2.48	0.16	0.97	0.00	0.74	0.01	23.72
2003–04	20.70	2.57	0.17	1.01	0.00	0.78	0.01	25.24
2004–05	20.89	2.59	0.18	0.99	0.00	0.84	0.01	25.50
2005–06	20.74	2.64	0.20	1.07	0.00	0.94	0.02	25.61
2006–07	21.18	2.75	0.22	1.09	0.00	0.98	0.02	26.24
2007–08	21.46	2.93	0.24	1.08	0.00	1.03	0.02	26.76
2008–09	21.06	3.05	0.26	1.17	0.00	1.11	0.02	26.67
2009–10	21.03	3.29	0.28	1.12	0.00	1.19	0.02	26.93
2010–11	21.14	3.36	0.28	1.10	0.00	1.24	0.01	27.13
2011–12	21.24	3.48	0.29	1.07	0.00	1.29	0.01	27.38
2012–13	21.38	3.59	0.30	1.05	0.00	1.27	0.02	27.61

Source: BTRE (2007), BITRE (2014k) and BITRE (2014n).

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
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	0.10	0.20	0.02	0.64	na	13.72
2009–10	11.95	0.98	0.10	0.19	0.02	0.65	na	13.90
2010–11	11.88	1.01	0.11	0.17	0.02	0.65	na	13.84
2011–12	11.78	1.03	0.11	0.16	0.02	0.65	na	13.74
2012–13	11.80	1.05	0.11	0.16	0.02	0.64	na	13.78

na: not applicable.

Source: BITRE (2007), BITRE (2014k) and BITRE (2014n).

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	8.19	0.92	0.10	0.09	na	0.52	0.00	9.82
1977–78	8.61	0.97	0.10	0.10	na	0.53	0.00	10.31
1978–79	8.86	1.00	0.10	0.10	na	0.52	0.00	10.58
1979–80	8.88	1.00	0.11	0.08	na	0.56	0.00	10.63
1980–81	8.95	1.02	0.11	0.07	na	0.58	0.00	10.74
1981–82	9.45	1.03	0.13	0.07	na	0.55	0.00	11.22
1982–83	9.53	0.99	0.13	0.08	na	0.55	0.00	11.29
1983–84	10.15	1.04	0.14	0.11	na	0.48	0.00	11.91
1984–85	10.52	1.06	0.14	0.11	na	0.46	0.00	12.29
1985–86	10.90	1.07	0.13	0.12	na	0.50	0.00	12.72
1986–87	11.19	1.06	0.13	0.12	na	0.51	0.00	13.02
1987–88	11.78	1.10	0.13	0.12	na	0.51	0.00	13.64
1988–89	12.36	1.16	0.14	0.11	na	0.54	0.00	14.32
1989–90	12.73	1.19	0.13	0.11	na	0.57	0.00	14.73
1990–91	12.65	1.15	0.11	0.09	na	0.55	0.00	14.56
1991–92	12.85	1.17	0.11	0.12	na	0.53	0.00	14.77
1992–93	13.31	1.22	0.10	0.17	na	0.52	0.00	15.32
1993–94	14.06	1.30	0.09	0.30	na	0.51	0.00	16.26
1994–95	14.96	1.41	0.09	0.30	na	0.52	0.00	17.29
1995–96	15.28	1.49	0.09	0.34	na	0.52	0.00	17.71
1996–97	15.44	1.49	0.09	0.38	na	0.52	0.00	17.91
1997–98	15.66	1.51	0.08	0.39	na	0.53	0.00	18.17
1998–99	16.08	1.51	0.08	0.38	na	0.52	0.00	18.58
1999–00	16.31	1.52	0.08	0.39	na	0.55	0.00	18.85
2000–01	16.11	1.52	0.09	0.41	na	0.57	0.00	18.71
2001–02	16.44	1.58	0.09	0.41	na	0.59	0.00	19.11
2002–03	16.89	1.62	0.09	0.42	na	0.60	0.00	19.62
2003–04	17.74	1.68	0.10	0.42	na	0.62	0.00	20.56
2004–05	18.02	1.70	0.11	0.44	na	0.64	0.00	20.91
2005–06	17.68	1.74	0.12	0.46	na	0.65	0.00	20.65
2006–07	18.08	1.82	0.14	0.50	na	0.65	0.00	21.20
2007–08	18.18	1.93	0.15	0.66	na	0.62	0.00	21.54
2008–09	18.69	2.00	0.17	0.87	na	0.64	0.00	22.36
2009–10	18.56	2.10	0.18	0.90	na	0.64	0.00	22.38
2010–11	18.79	2.16	0.19	0.94	na	0.66	0.00	22.74
2011–12	19.15	2.24	0.19	1.02	na	0.71	0.00	23.31
2012–13	19.16	2.32	0.20	1.06	na	0.74	0.00	23.48

na: not applicable.

Source: BTRE (2007), BITRE (2014k) and BITRE (2014n).

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
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	1.59
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	1.65
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	0.09	na	1.74
1982–83	1.47	0.17	0.01	na	na	0.09	na	1.73
1983–84	1.53	0.18	0.01	na	na	0.10	na	1.82
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	0.10	na	1.98
1986–87	1.68	0.19	0.01	na	na	0.10	na	1.99
1987–88	1.75	0.19	0.01	na	na	0.10	na	2.04
1988–89	1.82	0.19	0.01	na	na	0.09	na	2.11
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	0.09	na	2.20
1991–92	1.95	0.18	0.01	na	na	0.09	na	2.24
1992–93	2.02	0.19	0.01	na	na	0.09	na	2.32
1993–94	2.07	0.21	0.01	na	na	0.09	na	2.38
1994–95	2.10	0.22	0.01	na	na	0.09	na	2.43
1995–96	2.12	0.22	0.01	na	na	0.09	na	2.45
1996–97	2.12	0.22	0.01	na	na	0.09	na	2.44
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	2.39
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	2.34
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	2.58
2004–05	2.20	0.24	0.01	na	na	0.09	na	2.54
2005–06	2.17	0.24	0.01	na	na	0.09	na	2.51
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	0.08	na	2.56
2008–09	2.16	0.28	0.02	na	na	0.09	na	2.54
2009–10	2.14	0.29	0.02	na	na	0.09	na	2.53
2010–11	2.12	0.29	0.02	na	na	0.09	na	2.53
2011–12	2.12	0.30	0.02	na	na	0.09	na	2.53
2012–13	2.09	0.31	0.02	na	na	0.09	na	2.50

na: not applicable.

Source: BTRE (2007), BITRE (2014k) and BITRE (2014n).

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
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	0.07	na	1.13
2006–07	0.90	0.19	0.01	na	na	0.07	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	1.25
2009–10	0.94	0.22	0.02	na	na	0.07	na	1.25
2010–11	0.93	0.23	0.02	na	na	0.08	na	1.25
2011–12	0.92	0.23	0.02	na	na	0.08	na	1.25
2012–13	0.92	0.24	0.02	na	na	0.08	na	1.26

na: not applicable.

Source: BTRE (2007), BITRE (2014k) and BITRE (2014n).

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
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	0.19	na	4.44
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	0.19	na	4.55
2002–03	4.16	0.32	0.03	na	na	0.20	na	4.70
2003–04	4.34	0.33	0.03	na	na	0.20	na	4.89
2004–05	4.34	0.33	0.03	na	na	0.20	na	4.90
2005–06	4.28	0.33	0.03	na	na	0.21	na	4.85
2006–07	4.33	0.34	0.03	na	na	0.20	na	4.91
2007–08	4.35	0.36	0.04	na	na	0.20	na	4.95
2008–09	4.35	0.37	0.04	na	na	0.21	na	4.97
2009–10	4.38	0.38	0.04	na	na	0.22	na	5.02
2010–11	4.43	0.39	0.05	na	na	0.22	na	5.09
2011–12	4.50	0.41	0.05	na	na	0.22	na	5.17
2012–13	4.52	0.42	0.05	na	na	0.22	na	5.20

na: not applicable.

Source: BTRE (2007), BITRE (2014k) and BITRE (2014n).

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

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus ^f	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	73.73	6.70	0.82	5.68	0.54	3.78	0.13	91.38
1977–78	76.58	7.11	0.83	5.53	0.54	3.86	0.12	94.56
1978–79	78.97	7.28	0.83	5.41	0.54	3.85	0.12	97.01
1979–80	79.45	7.16	0.88	5.77	0.54	3.97	0.13	97.91
1980–81	80.77	7.20	0.92	5.85	0.55	4.06	0.13	99.48
1981–82	85.07	7.35	1.00	5.88	0.56	4.06	0.15	104.06
1982–83	85.48	7.19	1.01	5.69	0.55	4.11	0.15	104.18
1983–84	89.53	7.72	1.04	5.70	0.56	4.11	0.15	108.83
1984–85	93.03	8.07	1.06	5.71	0.62	4.19	0.16	112.84
1985–86	96.53	8.38	0.99	6.16	0.64	4.31	0.16	117.17
1986–87	98.93	8.59	0.96	6.36	0.65	4.44	0.17	120.11
1987–88	103.80	8.99	0.94	6.60	0.67	4.61	0.15	125.76
1988–89	108.61	9.35	1.00	6.84	0.70	4.75	0.17	131.41
1989–90	111.50	9.37	0.92	6.88	0.56	4.78	0.18	134.20
1990–91	111.40	9.02	0.84	6.93	0.62	4.87	0.15	133.84
1991–92	113.50	9.11	0.84	6.94	0.62	4.84	0.13	135.98
1992–93	116.86	9.35	0.83	6.88	0.54	4.74	0.11	139.31
1993–94	119.80	9.75	0.81	7.11	0.54	4.82	0.12	142.93
1994–95	123.70	10.41	0.79	7.50	0.54	4.99	0.13	148.05
1995–96	125.43	10.75	0.75	7.73	0.55	5.07	0.13	150.40
1996–97	126.16	10.81	0.74	7.93	0.54	5.13	0.14	151.45
1997–98	128.15	11.19	0.71	7.90	0.54	5.20	0.13	153.83
1998–99	131.42	11.35	0.68	8.06	0.56	5.15	0.13	157.36
1999–00	134.57	11.49	0.69	8.39	0.60	5.23	0.13	161.10
2000–01	133.95	11.63	0.71	8.94	0.61	5.29	0.15	161.28
2001–02	136.72	12.00	0.75	8.70	0.62	5.26	0.14	164.19
2002–03	139.75	12.30	0.74	8.78	0.63	5.33	0.14	167.68
2003–04	145.90	12.65	0.78	8.96	0.63	5.37	0.14	174.43
2004–05	146.57	12.71	0.84	9.06	0.64	5.51	0.15	175.47
2005–06	144.41	12.95	0.91	9.56	0.66	5.67	0.15	174.30
2006–07	145.76	13.45	1.01	10.07	0.67	5.82	0.15	176.92
2007–08	146.68	14.18	1.10	10.92	0.69	6.00	0.15	179.71
2008–09	146.14	14.62	1.19	11.44	0.75	6.30	0.15	180.59
2009–10	147.20	15.41	1.27	11.34	0.74	6.46	0.16	182.59
2010–11	149.18	15.85	1.32	11.47	0.77	6.68	0.15	185.42
2011–12	150.38	16.32	1.37	11.57	0.81	7.01	0.16	187.61
2012–13	150.87	16.75	1.42	11.71	0.77	6.98	0.16	188.67

^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, whereas private bus values include private bus usage such as by charter buses.

Source: BTRE (2007), BITRE (2014k) and BITRE (2014n).

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

Census year	Public transport	Taxi	Car, as driver	One method only				Bicycle	Walked only	Public transport and other method ¹³
				Car, as passenger	Truck	Motor bike/motor scooter				
				Number of employed persons						
1981	256 812	11 767	1 105 606	188 679	na	32 294	15 682	122 544	na	
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	

¹³ See end notes.

na: not available.

Source: ABS (2012b).

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

Census year	Public transport	Taxi	Car, as driver	One method only			Bicycle	Walked only	Public transport and other method ¹³
				Car, as passenger	Truck	Motor bike/motor scooter			
Number of employed persons									
1981	157 446	6 894	890 359	151 666	na	13 757	23 737	83 208	na
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

¹³ See end notes.

na: not available.

Source: ABS (2012b).

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

Census year	Public transport	Taxi	One method only					Walked only	Public transport and other method ¹³	
			Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle			
Number of employed persons										
1981	53 762	5 213	462 167	93 082	na	23 462	15 586	56 752	na	
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	

¹³ See end notes.

na: not available.

Source: ABS (2012b).

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

Census year	Public transport	Taxi	Car, as driver	One method only			Bicycle	Walked only	Public transport and other method ¹³
				Car, as passenger	Truck	Motor bike/motor scooter			
Number of employed persons									
1981	49 234	1 740	289 771	48 814	na	10 922	10 700	25 988	na
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

¹³ See end notes.

na: not available.

Source: ABS (2012b).

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

Census year	Public transport	Taxi	Car, as driver	One method only			Bicycle	Walked only	Public transport and other method ¹³
				Car, as passenger	Truck	Motor bike/motor scooter			
Number of employed persons									
1981	37 945	2 060	312 381	51 664	na	7 083	6 560	26 188	na
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

¹³ See end notes.

na: not available.

Source: ABS (2012b).

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

Census year	Public transport	Taxi	Car, as driver	One method only			Bicycle	Walked only	Public transport and other method ¹³
				Car, as passenger	Truck	Motor bike/motor scooter			
Number of employed persons									
1981	11 166	645	94 613	18 579	na	1 207	1 043	11 541	na
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

¹³ See end notes.

na: not available.

Source: ABS (2012b).

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

Census year	Public transport	Taxi	One method only					Walked only	Public transport and other method ¹³
			Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle		
Number of employed persons									
1981	2 907	396	24 170	5 847	na	1 387	1 641	6 738	na
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

¹³ See end notes.

na: not available.

Source: ABS (2012b).

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

Census year	Public transport	Taxi	One method only					Walked only	Public transport and other method ¹³
			Car, as driver	Car, as passenger	Truck	Motor bike/motor scooter	Bicycle		
Number of employed persons									
1981	8 642	405	61 213	10 194	na	1 417	1 902	3 802	na
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

¹³ See end notes.

na: not available.

Source: ABS (2012b).

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

Census year	Public transport	Taxi	Car, as driver	One method only				Bicycle	Walked only	Public transport and other method 13
				Car, as passenger	Truck	Motor bike/motor scooter				
Number of employed persons										
1981	577 914	29 120	3 240 280	568 525	na	91 529	76 851	336 761	na	
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	

¹³ See end notes.

na: not available.

Source: ABS (2012b).

Table T 3.4j Method of travel to work by state/territory—total employed persons by state/territory

Census month and year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total Australia
<i>Number of employed persons</i>									
June 1981	2 258 262	1 724 384	962 389	560 940	574 751	174 612	56 726	101 881	6 413 945
June 1986	2 378 161	1 856 220	1 118 679	606 673	660 945	182 977	74 271	129 752	7 007 678
August 1991	2 588 182	1 963 645	1 296 483	627 912	728 773	194 338	75 287	146 082	7 620 703
August 1996	2 770 218	2 064 961	1 497 430	645 811	845 583	199 774	87 090	154 997	8 265 865
August 2001	3 007 640	2 240 409	1 663 074	671 810	925 757	193 121	98 703	171 382	8 971 895
August 2006	3 226 341	2 505 369	2 036 215	751 359	1 067 806	221 511	101 650	195 523	10 105 773
August 2011	3 478 967	2 786 526	2 260 729	801 295	1 241 835	234 673	119 989	206 656	11 130 669

Source: ABS (2014i), ABS (2014j).

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	-	865	922	1 397	4 031	3 987	280
Melbourne	-	-	1 671	726	3 410	3 751	656
Brisbane	-	-	-	2 043	4 677	3 422	1 193
Adelaide	-	-	-	-	2 688	3 025	1 186
Perth	-	-	-	-	-	4 024	3 820
Darwin	-	-	-	-	-	-	4 156

Source: Whereis.com.

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
<i>billion vehicle kilometres travelled</i>							
1970–71	60.73	1.01	0.66	9.84	4.70	1.66	78.61
1971–72	64.80	1.10	0.65	10.42	4.69	1.76	83.43
1972–73	67.33	1.20	0.68	11.01	4.71	1.80	86.73
1973–74	71.99	1.30	0.69	12.02	4.87	1.90	92.77
1974–75	75.21	1.40	0.69	12.96	5.03	1.91	97.20
1975–76	78.40	1.64	0.69	13.12	5.25	2.03	101.13
1976–77	82.09	1.68	0.70	14.83	5.15	2.20	106.65
1977–78	85.03	1.73	0.71	16.11	5.10	2.22	110.90
1978–79	87.57	1.77	0.73	16.67	5.13	2.60	114.47
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	99.14	2.25	1.05	19.32	6.17	3.41	131.33
1984–85	103.07	2.28	1.14	20.52	6.34	3.59	136.95
1985–86	106.48	2.10	1.22	21.23	6.22	3.67	140.91
1986–87	109.01	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	151.30
1988–89	120.31	2.00	1.47	23.73	6.73	4.05	158.28
1989–90	124.01	1.80	1.56	23.90	6.84	4.13	162.24
1990–91	124.47	1.62	1.51	23.30	6.12	4.07	161.10
1991–92	127.19	1.61	1.48	24.17	5.91	4.10	164.46
1992–93	131.34	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	1.87	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	2.08	2.00	37.64	8.62	6.72	222.00
2007–08	165.73	2.28	2.05	39.26	8.86	6.91	225.09
2008–09	165.08	2.44	2.12	40.19	8.75	6.83	225.43
2009–10	166.15	2.63	2.20	41.85	8.99	6.95	228.76
2010–11	168.03	2.72	2.27	43.12	9.21	7.20	232.54
2011–12	169.58	2.83	2.35	44.48	9.45	7.45	236.15
2012–13	170.39	2.93	2.39	45.83	9.65	7.65	238.84

Source: BTRE (2007) and BITRE estimates.

Table T 4.3 Total vehicle kilometres travelled by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion vehicle kilometres travelled</i>									
1970–71	27.76	21.45	10.77	7.42	7.49	2.30	0.51	0.91	78.61
1971–72	29.31	22.78	11.52	7.76	8.04	2.42	0.57	1.02	83.43
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	56.74	47.04	16.11	24.06	5.25	1.93	3.55	222.00
2007–08	67.94	57.67	48.25	15.92	24.46	5.28	1.99	3.58	225.09
2008–09	68.03	57.37	48.12	15.90	25.13	5.26	2.04	3.59	225.43
2009–10	68.99	58.61	48.86	16.13	25.25	5.24	2.05	3.63	228.76
2010–11	70.43	59.89	49.28	16.17	25.74	5.27	2.06	3.68	232.54
2011–12	71.23	61.02	50.16	16.19	26.40	5.30	2.08	3.76	236.15
2012–13	71.94	61.60	51.03	16.31	26.77	5.28	2.11	3.79	238.84

Source: BTRE (2007) and BITRE estimates.

Table T 4.4 Total vehicle kilometres travelled by capital city

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Total
<i>billion vehicle kilometres travelled</i>									
1970–71	14.79	12.31	4.34	4.57	4.52	0.72	0.21	0.90	42.36
1971–72	15.64	13.08	4.68	4.81	4.87	0.76	0.23	1.01	45.09
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	0.90	3.50	122.49
2004–05	37.12	35.65	18.90	10.03	15.35	1.92	0.89	3.51	123.37
2005–06	36.64	35.50	18.95	9.90	15.22	1.90	0.90	3.49	122.51
2006–07	37.04	35.79	19.47	10.01	15.64	1.94	0.93	3.54	124.35
2007–08	37.44	36.41	19.90	9.84	15.84	1.95	0.97	3.57	125.91
2008–09	37.47	36.16	19.77	9.81	16.27	1.94	0.99	3.59	126.00
2009–10	37.98	36.88	20.04	9.94	16.31	1.93	0.99	3.62	127.70
2010–11	38.78	37.76	20.28	9.94	16.59	1.94	1.00	3.68	129.97
2011–12	39.18	38.48	20.59	9.93	17.00	1.94	1.01	3.76	131.89
2012–13	39.53	38.85	20.92	9.99	17.18	1.94	1.02	3.79	133.23

Source: BTRE (2007) and BITRE estimates.

Table T 4.5 Total road freight, by vehicle type

Financial year	Light commercial vehicles	Rigid trucks	Articulated trucks	Total ¹¹
		<i>billion tonne-kilometres</i>		
1970–71	0.7	10.4	14.6	25.6
1971–72	0.8	10.3	15.9	27.0
1972–73	0.8	10.4	16.7	27.9
1973–74	0.9	10.7	18.9	30.5
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	119.4
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

¹¹ See end notes.

Source: BTRE (2006a) and BITRE estimates.

Table T 4.6 Private vehicle ownership and operating cost indices^a

June reference month	Australia motor vehicle producer price	Private motoring	Motor vehicle retail price	Automotive fuel	Motor vehicle repair and servicing	Motor vehicle parts and accessories	Other motoring charges	Urban transport fares
<i>index</i>								
1973		11.6	22.1	6.8				8.1
1974		13.1	24.0	8.0				8.4
1975		16.0	28.2	9.5				9.5
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

^a Base of each index: 2011–12 = 100.0.

Note: Data are not readily available for missing years.

Source: ABS (2014d) and ABS (2014f).

Table T 4.7 Stock of registered motor vehicles by vehicle type

	Passenger cars	Motor cycles	LCVs	Rigid trucks	Articulated trucks	Other trucks	Buses	All vehicles
				<i>thousands</i>				
1971	3 990.9	152.6	532.7	365.8	32.0	10.0	22.8	5 106.8
1972								
1973								
1974								
1975								
1976	5 102.2	293.4	758.2	372.2	39.0	25.1	31.4	6 621.5
1977								
1978								
1979	5 669.6	288.3	879.2	419.9	43.7	36.3	37.8	7 374.7
1980								
1981								
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

Note: Data are not readily available for missing years.

Source: ABS (2014k).

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

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
	<i>thousands</i>								
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

Source: ABS (2014k).

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
<i>thousands</i>				
1994–95	487.3	45.6	112.1	645.0
1995–96	487.7	46.1	105.5	639.4
1996–97	503.3	58.7	108.2	670.2
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

Source: ABS (2014n).

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
<i>thousands</i>									
1994–95	237.6	150.8	116.9	41.7	64.1	13.8	7.3	12.7	645.0
1995–96	230.1	152.7	117.1	42.7	64.4	12.8	7.5	12.0	639.4
1996–97	239.7	164.3	121.2	43.0	68.6	13.9	7.6	12.0	670.2
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

Source: ABS (2014n).

Table T 4.11a Licence holders¹⁴ by age and gender—New South Wales

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70–79	80+	
Female										
30 June 2010	136 254	186 532	208 155	457 993	456 544	400 051	283 479	139 556	46 758	2 315 322
30 June 2011	137 008	193 069	212 912	460 906	463 234	410 543	296 446	144 943	50 676	2 369 737
30 June 2012	137 689	197 443	215 084	461 701	469 189	421 116	309 668	152 765	53 743	2 418 398
30 June 2013	139 198	198 294	214 947	465 003	472 387	430 366	323 208	160 449	56 239	2 460 091
Male										
30 June 2010	144 248	191 066	210 538	461 910	472 941	427 968	325 847	174 314	67 336	2 476 168
30 June 2011	144 838	197 014	214 158	465 444	477 713	436 375	337 695	179 275	71 439	2 523 951
30 June 2012	144 815	201 827	215 802	466 699	481 561	446 717	348 551	186 071	74 532	2 566 575
30 June 2013	144 415	202 781	215 411	470 168	482 750	455 140	360 292	192 797	76 917	2 600 671
Persons										
30 June 2010	280 502	377 598	418 693	919 903	929 485	828 019	609 326	313 870	114 094	4 791 490
30 June 2011	281 846	390 083	427 070	926 350	940 947	846 918	634 141	324 218	122 115	4 893 688
30 June 2012	282 504	399 270	430 886	928 400	950 750	867 833	658 219	338 836	128 275	4 984 973
30 June 2013	283 613	401 075	430 358	935 171	955 137	885 506	683 500	353 246	133 156	5 060 762

¹⁴ See end notes.

Source: BITRE estimates based on NSW Roads and Maritime Services data (2014).

Table T 4.11b Licence holders¹⁴ by age and gender—Victoria

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70–79	80+	
Female										
30 June 2010	107 699	167 949	185 030	383 814	379 942	323 517	225 482	113 917	53 530	1 940 880
30 June 2011	107 718	170 829	189 697	383 649	386 840	330 975	237 310	118 398	57 282	1 982 698
30 June 2012	106 561	172 828	193 490	387 392	393 330	338 903	247 450	124 303	57 363	2 021 620
30 June 2013	105 887	173 419	197 309	395 383	397 927	346 456	259 315	129 837	57 878	2 063 411
Male										
30 June 2010	114 885	174 814	192 335	385 617	382 897	330 759	247 722	139 757	68 651	2 037 437
30 June 2011	115 106	177 714	198 189	388 550	388 434	337 924	256 308	143 596	72 059	2 077 880
30 June 2012	113 479	179 156	203 208	394 661	393 913	345 262	264 146	148 396	71 881	2 114 102
30 June 2013	112 710	178 558	206 569	405 447	398 294	353 257	273 144	152 606	72 267	2 152 852
Persons										
30 June 2010	222 584	342 764	377 366	769 433	762 839	654 276	473 204	253 675	122 181	3 978 322
30 June 2011	222 824	348 543	387 888	772 201	775 274	668 899	493 618	261 994	129 341	4 060 582
30 June 2012	220 040	351 984	396 698	782 056	787 243	684 165	511 596	272 699	129 244	4 135 725
30 June 2013	218 597	351 977	403 878	800 832	796 221	699 713	532 459	282 443	130 145	4 216 265

¹⁴ See end notes.

Source: BITRE estimates based on VicRoads data (2014).

Table T 4.1 Ic Licence holders¹⁴ by age and gender—Queensland

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70-79	80+	
Female										
30 June 2010	93 039	132 299	142 416	293 772	298 476	260 418	187 206	85 623	26 206	1 519 455
30 June 2011	94 553	135 325	147 302	298 109	307 090	269 114	197 947	90 744	28 734	1 568 918
30 June 2012	93 614	136 149	148 254	298 259	311 710	277 259	207 584	97 747	31 293	1 601 869
30 June 2013	95 254	139 032	149 712	302 964	316 032	284 082	216 522	103 355	33 535	1 640 488
Male										
30 June 2010	96 949	135 188	148 533	300 453	305 891	271 547	209 880	105 119	39 326	1 612 886
30 June 2011	98 754	140 007	155 769	308 402	316 609	280 258	219 737	110 136	42 349	1 672 021
30 June 2012	97 569	139 312	155 589	308 626	320 873	286 986	228 101	116 553	45 526	1 699 135
30 June 2013	97 514	142 117	157 590	313 499	325 075	293 339	236 053	121 277	47 872	1 734 336
Persons										
30 June 2010	189 988	267 487	290 949	594 225	604 367	531 965	397 086	190 742	65 532	3 132 341
30 June 2011	193 307	275 332	303 071	606 511	623 699	549 372	417 684	200 880	71 083	3 240 939
30 June 2012	191 183	275 461	303 843	606 885	632 583	564 245	435 685	214 300	76 819	3 301 004
30 June 2013	192 768	281 149	307 302	616 463	641 107	577 421	452 575	224 632	81 407	3 374 824

¹⁴ See end notes.

Source: BITRE estimates based on Department of Transport and Main Roads (QLD) data (2014).

Table T 4.1 Id Licence holders¹⁴ by age and gender—South Australia

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70–79	80+	
Female										
30 June 2010	32 569	44 088	45 925	94 811	106 125	99 565	72 861	35 314	13 708	544 966
30 June 2011	32 434	44 430	46 939	93 918	106 017	100 558	76 144	35 929	13 967	550 336
30 June 2012	31 889	44 671	47 536	93 976	106 366	101 726	79 185	37 841	14 355	557 545
30 June 2013	31 954	46 009	48 541	95 431	107 309	103 706	83 256	40 661	15 605	572 472
Male										
30 June 2010	34 346	46 014	48 384	98 330	110 336	103 646	81 359	44 366	19 173	585 954
30 June 2011	34 226	46 758	49 351	97 669	109 910	104 526	83 383	43 750	18 804	588 377
30 June 2012	33 645	46 873	49 942	97 933	110 053	105 571	85 726	45 382	19 151	594 276
30 June 2013	33 392	47 885	50 952	99 905	110 905	108 033	89 528	48 624	21 596	610 820
Persons										
30 June 2010	66 915	90 102	94 309	193 141	216 461	203 211	154 220	79 680	32 881	1 130 920
30 June 2011	66 660	91 188	96 290	191 587	215 927	205 084	159 527	79 679	32 771	1 138 713
30 June 2012	65 534	91 544	97 478	191 909	216 419	207 297	164 911	83 223	33 506	1 151 821
30 June 2013	65 346	93 894	99 493	195 336	218 214	211 739	172 784	89 285	37 201	1 183 292

¹⁴ See end notes.

Source: BITRE estimates based on Department of Planning, Transport and Infrastructure (SA) data (2014).

Table T 4.11e Licence holders¹⁴ by age and gender—Western Australia

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70–79	80+	
Female										
30 June 2010	16 919	61 939	70 666	146 041	154 515	136 822	94 295	47 009	14 737	742 943
30 June 2011	16 083	62 371	72 723	147 175	157 622	140 444	98 975	49 444	15 771	760 608
30 June 2012	15 755	62 573	74 921	150 410	160 276	144 008	103 859	51 972	16 996	780 770
30 June 2013	15 919	62 652	78 447	156 586	162 625	147 910	108 818	55 228	18 076	806 261
Male										
30 June 2010	20 100	67 907	79 928	158 215	166 694	145 421	106 747	55 261	21 125	821 398
30 June 2011	19 843	68 730	83 271	160 924	170 851	148 965	111 262	57 236	22 057	843 139
30 June 2012	19 519	69 440	86 939	166 584	174 500	153 358	115 531	59 362	22 970	868 203
30 June 2013	19 216	69 487	91 297	176 009	177 504	157 882	120 026	62 494	23 794	897 709
Persons										
30 June 2010	37 019	129 846	150 594	304 256	321 209	282 243	201 042	102 270	35 862	1 564 341
30 June 2011	35 926	131 101	155 994	308 099	328 473	289 409	210 237	106 680	37 828	1 603 747
30 June 2012	35 274	132 013	161 860	316 994	334 776	297 366	219 390	111 334	39 966	1 648 973
30 June 2013	35 135	132 139	169 744	332 595	340 129	305 792	228 844	117 722	41 870	1 703 970

¹⁴ See end notes.

Source: BITRE estimates based on Department of Transport (WA) data (2014).

Table T 4.11f Licence holders¹⁴ by age and gender—Tasmania

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70–79	80+	
Female										
30 June 2010	10 868	14 173	13 896	29 298	34 329	33 810	25 718	12 968	4 177	179 237
30 June 2011	10 662	14 148	13 968	28 851	34 283	34 699	26 903	13 534	4 400	181 448
30 June 2012	10 387	13 810	13 503	27 942	33 654	34 944	27 806	14 122	4 702	180 870
30 June 2013	10 155	13 471	13 435	27 297	33 087	35 005	28 883	14 701	4 997	181 031
Male										
30 June 2010	11 033	14 365	13 728	28 504	33 986	34 185	27 704	14 952	5 597	184 054
30 June 2011	10 885	14 344	13 971	28 105	33 870	34 707	28 764	15 373	5 829	185 848
30 June 2012	10 752	13 844	13 600	27 026	33 010	34 642	29 645	15 892	6 078	184 489
30 June 2013	10 540	13 751	13 319	26 705	32 217	34 626	30 413	16 462	6 231	184 264
Persons										
30 June 2010	21 901	28 538	27 624	57 802	68 315	67 995	53 422	27 920	9 774	363 291
30 June 2011	21 547	28 492	27 939	56 956	68 153	69 406	55 667	28 907	10 229	367 296
30 June 2012	21 139	27 654	27 103	54 968	66 664	69 586	57 451	30 014	10 780	365 359
30 June 2013	20 695	27 222	26 754	54 002	65 304	69 631	59 296	31 163	11 228	365 295

¹⁴ See end notes.

Source: BITRE estimates based on Department of State Growth (TAS) data (2014).

Table T 4.1 Ig Licence holders¹⁴ by age and gender—Northern Territory

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70-79	80+	
Female										
30 June 2010	3 162	5 458	7 235	14 042	12 754	10 291	5 038	1 304	289	59 573
30 June 2011	3 142	5 426	7 318	13 817	12 830	10 429	5 348	1 435	319	60 064
30 June 2012	3 182	5 736	7 573	14 396	13 076	10 863	5 686	1 609	343	62 464
30 June 2013	3 076	6 048	7 896	14 867	13 077	11 211	6 032	1 777	372	64 356
Male										
30 June 2010	3 535	7 034	8 187	15 715	15 307	12 974	7 587	2 179	470	72 988
30 June 2011	3 539	6 936	8 291	15 360	15 090	13 001	7 908	2 348	498	72 971
30 June 2012	3 589	7 302	8 861	15 834	15 233	13 344	8 350	2 555	545	75 613
30 June 2013	3 494	7 555	9 283	16 699	15 343	13 776	8 720	2 776	569	78 215
Persons										
30 June 2010	6 697	12 492	15 422	29 757	28 061	23 265	12 625	3 483	759	132 561
30 June 2011	6 681	12 362	15 609	29 177	27 920	23 430	13 256	3 783	817	133 035
30 June 2012	6 771	13 038	16 434	30 230	28 309	24 207	14 036	4 164	888	138 077
30 June 2013	6 570	13 603	17 179	31 566	28 420	24 987	14 752	4 553	941	142 571

¹⁴ See end notes.

Source: BITRE estimates based on Department of Transport (NT) data (2014).

Table T 4.1 Ih Licence holders¹⁴ by age and gender—Australian Capital Territory

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70-79	80+	
Female										
30 June 2010	8 543	13 928	15 520	28 977	26 512	23 188	14 971	6 305	2 780	140 724
30 June 2011	8 706	14 072	15 763	29 561	26 972	23 532	15 788	6 636	3 048	144 078
30 June 2012	8 581	14 401	16 193	30 372	27 560	23 826	16 582	7 125	3 307	147 947
30 June 2013	8 336	14 421	16 489	31 080	28 214	24 003	17 301	7 562	3 576	150 982
Male										
30 June 2010	9 186	14 594	15 948	29 876	26 886	23 056	16 164	7 203	3 497	146 410
30 June 2011	9 022	15 067	16 457	30 452	27 571	23 405	16 831	7 442	3 849	150 096
30 June 2012	8 887	15 245	16 913	31 435	28 147	23 842	17 383	7 938	4 104	153 894
30 June 2013	8 555	15 397	17 050	32 390	28 711	24 059	17 996	8 294	4 400	156 852
Persons										
30 June 2010	17 729	28 522	31 468	58 853	53 398	46 244	31 135	13 508	6 277	287 134
30 June 2011	17 728	29 139	32 220	60 013	54 543	46 937	32 619	14 078	6 897	294 174
30 June 2012	17 468	29 646	33 106	61 807	55 707	47 668	33 965	15 063	7 411	301 841
30 June 2013	16 891	29 818	33 539	63 470	56 925	48 062	35 297	15 856	7 976	307 834

¹⁴ See end notes.

Source: BITRE estimates based on ACT Office of Regulatory Services data (2014).

Table T 4.11i Licence holders¹⁴ by age and gender—Australia

Date	Age									Total
	16-19	20-24	25-29	30-39	40-49	50-59	60-69	70–79	80+	
Female										
30 June 2010	409 053	626 366	688 843	1 448 748	1 469 197	1 287 662	909 050	441 996	162 185	7 443 100
30 June 2011	410 306	639 670	706 622	1 455 986	1 494 888	1 320 294	954 861	461 063	174 197	7 617 887
30 June 2012	407 658	647 611	716 554	1 464 448	1 515 161	1 352 645	997 820	487 484	182 102	7 771 483
30 June 2013	409 779	653 346	726 776	1 488 611	1 530 658	1 382 739	1 043 335	513 570	190 278	7 939 092
Male										
30 June 2010	434 282	650 982	717 581	1 478 620	1 514 938	1 349 556	1 023 010	543 151	225 175	7 937 295
30 June 2011	436 213	666 570	739 457	1 494 906	1 540 048	1 379 161	1 061 888	559 156	236 884	8 114 283
30 June 2012	432 255	672 999	750 854	1 508 798	1 557 290	1 409 722	1 097 433	582 149	244 787	8 256 287
30 June 2013	429 836	677 531	761 471	1 540 822	1 570 799	1 440 112	1 136 172	605 330	253 646	8 415 719
Persons										
30 June 2010	843 335	1 277 349	1 406 425	2 927 370	2 984 135	2 637 218	1 932 060	985 148	387 360	15 380 400
30 June 2011	846 519	1 306 240	1 446 081	2 950 894	3 034 936	2 699 455	2 016 749	1 020 219	411 081	15 732 174
30 June 2012	839 913	1 320 610	1 467 408	2 973 249	3 072 451	2 762 367	2 095 253	1 069 633	426 889	16 027 773
30 June 2013	839 615	1 330 877	1 488 247	3 029 435	3 101 457	2 822 851	2 179 507	1 118 900	443 924	16 354 813

¹⁴ See end notes.

Source: BITRE estimates based on state/territory licensing data (2014).

Table T 4.12a Licensed vehicle operators by vehicle type—New South Wales¹⁵

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light Rigid	Medium Rigid	Heavy Rigid	Heavy Combination	Multi Combination
Full licence							
30 June 2010	4 141 994	451 630	82 835	121 937	201 164	113 554	18 960
30 June 2011	4 219 148	461 252	84 913	124 294	200 038	111 704	19 978
30 June 2012	4 286 343	471 975	86 022	126 495	202 116	110 908	21 054
30 June 2013	4 358 073	483 321	89 597	127 577	200 451	108 849	22 073
Provisional licence							
30 June 2010	393 815	18 264	112	1 111	616	0	0
30 June 2011	400 474	22 400	145	1 162	712	0	0
30 June 2012	410 282	25 568	164	1 184	776	0	0
30 June 2013	418 195	28 600	160	1 174	868	0	0
L Permits							
30 June 2010	251 377	26 355	0	0	0	0	0
30 June 2011	270 010	25 460	0	0	0	0	0
30 June 2012	284 370	27 459	0	0	0	0	0
30 June 2013	280 321	28 079	0	0	0	0	0

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

¹⁵ See end notes.

Source: BITRE estimates based on NSW Roads and Maritime Services data (2014).

Table T 4.12b Licensed vehicle operators by vehicle type—Victoria¹⁵

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light Rigid	Medium Rigid	Heavy Rigid	Heavy Combination	Multi Combination
Full licence							
30 June 2010	3 507 752	321 289	28 575	85 073	159 569	134 079	20 234
30 June 2011	3 586 011	333 286	29 805	87 926	163 805	133 691	21 443
30 June 2012	3 598 026	343 439	31 393	89 818	168 585	132 852	23 011
30 June 2013	3 654 040	355 194	33 249	91 344	171 765	131 558	24 763
Provisional licence							
30 June 2010	207 895	3 233	51	734	304	62	9
30 June 2011	201 678	3 388	33	668	328	56	5
30 June 2012	259 188	5 169	60	1 114	859	159	15
30 June 2013	276 379	5 689	51	1 343	1 066	182	36
L Permits							
30 June 2010	282 381	18 811	0	0	0	0	0
30 June 2011	292 842	18 005	0	0	0	0	0
30 June 2012	295 094	18 599	0	0	0	0	0
30 June 2013	297 533	18 177	0	0	0	0	0

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

¹⁵ See end notes.

Source: BITRE estimates based on VicRoads data (2014).

Table T 4.12c Licensed vehicle operators by vehicle type—Queensland¹⁵

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light Rigid	Medium Rigid	Heavy Rigid	Heavy Combination	Multi Combination
Full licence							
30 June 2010	2 787 982	463 820	41 811	86 459	233 136	90 612	37 954
30 June 2011	2 877 954	476 740	43 729	89 726	237 179	90 475	40 948
30 June 2012	2 931 268	na	45 113	91 204	241 747	89 729	43 788
30 June 2013	2 993 716	496 720	46 511	92 758	244 520	88 487	46 649
Provisional licence							
30 June 2010	138 842	5 974	272	1 539	2 034	586	457
30 June 2011	160 306	5 869	302	1 657	2 003	574	449
30 June 2012	175 902	na	275	1 568	1 754	481	412
30 June 2013	185 457	6 079	295	1 638	1 980	489	459
L Permits							
30 June 2010	178 367	134 203	0	0	7	244	20
30 June 2011	180 665	141 855	0	0	4	232	20
30 June 2012	175 603	na	0	0	1	211	16
30 June 2013	178 236	148 949	0	0	0	188	15

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

¹⁵ See end notes.

Source: BITRE estimates based on Department of Transport and Main Roads (QLD) data (2014).

Table T 4.12d Licensed vehicle operators by vehicle type—South Australia¹⁵

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light Rigid	Medium Rigid	Heavy Rigid	Heavy Combination	Multi Combination
Full licence							
30 June 2010	1 022 537	159 869	21 054	39 416	58 872	39 827	8 909
30 June 2011	1 027 761	159 253	21 776	39 643	58 566	38 988	9 258
30 June 2012	1 038 857	160 282	23 305	39 724	58 489	38 369	9 722
30 June 2013	1 070 037	164 730	26 056	40 467	59 502	38 273	10 425
Provisional licence							
30 June 2010	70 352	1 137	12	361	175	140	27
30 June 2011	71 912	1 040	16	418	212	146	23
30 June 2012	68 404	1 102	18	420	285	161	33
30 June 2013	67 831	1 247	16	427	308	149	44
L Permits							
30 June 2010	37 935	5 739	1	3	9	422	0
30 June 2011	38 544	6 168	1	4	10	353	0
30 June 2012	43 408	7 029	0	6	7	367	0
30 June 2013	42 872	7 588	0	2	7	306	0

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

¹⁵ See end notes.

Source: BITRE estimates based on Department of Planning, Transport and Infrastructure (SA) data (2014).

Table T 4.12e Licensed vehicle operators by vehicle type—Tasmania¹⁵

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light Rigid	Medium Rigid	Heavy Rigid	Heavy Combination	Multi Combination
Full licence							
30 June 2010	325 777	40 857	4 383	28 678	13 382	13 380	1 746
30 June 2011	329 539	41 936	5 333	28 575	13 708	13 140	1 861
30 June 2012	328 079	42 428	6 214	28 084	13 868	12 644	1 935
30 June 2013	328 360	43 102	7 063	27 713	13 930	12 300	2 005
Provisional licence							
30 June 2010	18 737	2 654	11	75	7	3	0
30 June 2011	17 583	2 925	7	76	19	5	0
30 June 2012	16 059	2 869	2	77	15	6	0
30 June 2013	15 076	3 264	6	95	15	5	0
L Permits							
30 June 2010	18 265	1 705	0	0	0	0	0
30 June 2011	19 578	1 788	0	0	0	0	0
30 June 2012	20 615	2 024	0	0	0	0	0
30 June 2013	21 292	2 172	0	0	0	0	0

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

¹⁵ See end notes.

Source: BITRE estimates based on Department of State Growth (TAS) data (2014).

Table T 4.12f Licensed vehicle operators by vehicle type—Northern Territory¹⁵

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light Rigid	Medium Rigid	Heavy Rigid	Heavy Combination	Multi Combination
Full licence							
30 June 2010	117 915	21 294	5 554	7 081	11 164	5 544	4 105
30 June 2011	118 551	21 164	5 588	6 913	11 267	5 407	4 142
30 June 2012	122 841	21 484	5 651	6 797	12 263	5 337	4 270
30 June 2013	126 920	22 091	5 807	6 685	12 988	5 311	4 491
Provisional licence							
30 June 2010	5 744	73	1	5	4	2	2
30 June 2011	6 020	76	5	5	5	1	4
30 June 2012	6 108	70	5	3	7	0	2
30 June 2013	5 796	115	0	3	3	0	0
L Permits							
30 June 2010	6 321	1 425	0	0	2	0	0
30 June 2011	5 911	1 445	0	0	3	0	1
30 June 2012	6 265	1 570	0	0	1	0	1
30 June 2013	6 766	1 674	0	1	0	0	1

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

¹⁵ See end notes.

Source: BITRE estimates based on Department of Transport (NT) data (2014).

Table T 4.12g Licensed vehicle operators by vehicle type—Australian Capital Territory¹⁵

Date	Car	Motorcycle	Highest class of heavy vehicle licence				
			Light Rigid	Medium Rigid	Heavy Rigid	Heavy Combination	Multi Combination
Full licence							
30 June 2010	254 370	28 381	2 498	6 854	9 723	3 494	524
30 June 2011	261 032	29 258	2 595	6 903	9 734	3 418	523
30 June 2012	268 621	30 180	2 695	6 958	9 787	3 347	530
30 June 2013	275 825	31 032	2 718	6 983	9 748	3 252	517
Provisional licence							
30 June 2010	20 719	1 246	2	32	6	0	32
30 June 2011	21 203	1 268	2	19	5	0	0
30 June 2012	21 255	1 148	4	32	6	0	0
30 June 2013	20 196	1 293	4	27	6	1	0
L Permits							
30 June 2010	10 734	3 673	0	0	0	0	0
30 June 2011	10 615	3 322	0	0	0	0	0
30 June 2012	10 810	3 437	0	0	0	0	0
30 June 2013	10 769	3 325	0	0	0	0	0

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

¹⁵ See end notes.

Source: BITRE estimates based on ACT Office of Regulatory Services data (2014).

CHAPTER 5

Rail

Figure T 5 Australia’s railways, by network manager



Note: *The lines shown here are the railways that are open for traffic at July 2014. There is discussion amongst interested parties to re-open a number of grain lines in WA as well as the Demondrille–Greenthorpe/Blayney lines in NSW.

Table T 5.1a Intercapital rail distances—freight terminals

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Darwin	Canberra
	<i>kilometres</i>						
Sydney		929	965	1 868	4 137	4 459	316
Melbourne			1 901	832	3 468	3 790	811
Brisbane				2 725	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
	<i>kilometres</i>						
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 Route-kilometres of open railway¹⁶, by jurisdiction and gauge¹⁷

Jurisdiction	Gauge					Total
	1 067	1 435	1 600	Dual	Other	
New South Wales	8	7 071	73		1	7 153
Victoria	16	1 222	2 894	32	30	4 196
Queensland	7 583	67		84	4	7 739
South Australia	561	3 114	253	22		3 950
Western Australia	2 963	4 211		207		7 381
Tasmania	667					667
Northern Territory	3	1 690				1 693
ACT		6				6
Total	11 801	17 381	3 221	346	35	32 784

^{16,17} See end notes.

Source: BITRE (2014m).

Table T 5.2b Route-kilometres of open railway¹⁶, by jurisdiction and single or double (or more) trackage¹⁷

Jurisdiction	Trackage		
	Double (or more)	Single	Total
New South Wales	1 176	5 977	7 153
Victoria	848	3 348	4 196
Queensland	698	7 041	7 739
South Australia	122	3 828	3 950
Western Australia	775	6 606	7 381
Tasmania		667	667
Northern Territory		1 693	1 693
ACT		6	6
Total	3 618	29 166	32 784

^{16,17} See end notes.

Source: BITRE estimates.

Table T 5.2c Route-kilometres of open railway¹⁶, by jurisdiction and overhead electrical system used¹⁷

Jurisdiction	Electrical system					Total
	1 500VDC	25 kV AC, 50 Hz	33 kV AC	De- electrified	Not electrified	
New South Wales	629		8	2	6 514	7 153
Victoria	375			100	3 721	4 196
Queensland		2 033			5 706	7 739
South Australia		39			3 911	3 950
Western Australia		171			7 209	7 381
Tasmania					667	667
Northern Territory					1 693	1 693
ACT					6	6
Total	1 004	2 243	8	102	29 427	32 784

^{16,17} See end notes.

Source: BITRE (2014m).

Table T 5.3 Network characteristics of urban railways

	Route-kilometres in metropolitan area				Route- kilometres, electrified	Metropolitan Stations
	Passenger-only lines	Freight-only lines	Shared passenger/ freight	Total		
Sydney	178	70	156	404	334	176
Melbourne	232	59	171	462	373	218
Brisbane	90	81	140	311	230	125
Adelaide	93	62	^a 30	185	36	86
Perth	175	121	1	297	175	70

na: not applicable.

^a Broad gauge freight services over this track ceased during 2014.

Source: BITRE (2014m).

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

Financial year	NSW	VIC	QLD	SA	WA	NT	ACT	Total
<i>million tonne-kilometres</i>								
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 ⁹	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

⁹ See end notes.

na: not applicable.

Source: BITRE (2012c).

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

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
<i>million passenger movements</i>									
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	135.4	45.0	10.5	31.0				489.0
2002–03	263.7	138.3	45.4	11.0	31.4				489.8
2003–04	263.6	139.8	47.0	11.3	31.1				492.8
2004–05	259.9	145.1	47.2	11.3	32.7				496.3
2005–06	261.9	162.4	49.9	11.9	34.1				520.2
2006–07	269.0	178.6	53.8	11.8	35.8				549.0
2007–08	283.3	201.2	53.3	11.8	42.6				592.2
2008–09	292.2	213.7	57.2	12.1	54.8				630.0
2009–10	289.1	219.3	54.9	11.8	56.4				631.4
2010–11	294.5	228.9	53.8	10.7	58.9				646.7
2011–12	303.7	222.0	52.4	9.6	63.0				650.8
2012–13	306.2	225.5	51.7	10.0	65.7				659.1

Note: Values denote total UPT train passenger trips (including concessions and transfers) on all metropolitan (heavy) rail network services.

Source: BITRE (2014k).

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

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Metropolitan
<i>million passenger movements</i>									
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	6.2	145.3		2.1					153.6
2005–06	5.7	151.1		2.1					158.8
2006–07	6.3	154.9		2.4					163.6
2007–08	6.2	158.3		2.6					167.0
2008–09	6.0	178.1		2.6					186.7
2009–10	5.8	175.6		3.0					184.4
2010–11	5.6	182.7		3.3					191.6
2011–12	5.9	191.6		2.9					200.4
2012–13	5.7	182.7		2.9					191.2

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

Source: BITRE (2014k).

CHAPTER 6

Aviation

Figure T 6 Australia’s top 40 airports in 2012–13, passengers



Table T 6.1 Intercapital air distances (great circle distances)

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
				<i>km</i>				
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 (2014c).

Table T 6.2 International airline activity

Financial year	Flights	Revenue passengers ¹⁸	Available seats	Load factor ¹⁹	Freight
	<i>no.</i>	<i>no.</i>	<i>no.</i>	<i>per cent</i>	<i>'000 tonnes</i>
1970–71	17 067	1 199 148			33.4
1971–72	18 573	1 433 739			36.3
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	173 702	32 377 814	43 699 637	76.4	881.2

^{18, 19} See end notes.

Note: Data are not readily available for missing years.

Source: BITRE (2014e).

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	Freight
			'000	'000	'000	per cent	'000 tonnes
1977–78	374 866	11 958 560	8 313 930		12 465 976	66.69	
1978–79	397 242	12 587 854	8 787 099		12 795 744	68.67	
1979–80	415 879	13 540 872	9 692 782		13 526 185	71.66	
1980–81	416 282	13 563 340	9 979 054		13 627 596	73.23	
1981–82	416 291	13 695 462	10 406 883		14 933 230	69.69	
1982–83	411 027	12 644 727	9 586 535		14 247 860	67.28	
1983–84	406 679	13 037 551	9 940 350		13 966 231	71.17	
1984–85	411 621	13 768 268	10 604 648	21 123	14 733 094	71.98	
1985–86	426 450	14 798 619	11 588 920	22 642	16 109 845	71.94	
1986–87	427 149	15 267 094	12 372 645	23 352	17 316 196	71.45	
1987–88	435 622	16 471 140	13 623 398	24 130	18 321 841	74.36	
1988–89	452 433	16 844 631	14 168 630	24 430	18 821 360	75.28	
1989–90	364 595	12 272 726	10 490 243	18 836	14 846 965	70.66	
1990–91	444 183	16 935 005	15 139 951	26 123	21 748 111	69.62	
1991–92	490 740	20 997 030	19 806 981	29 384	25 703 400	77.06	
1992–93	522 879	21 475 685	19 849 262	30 943	26 293 801	75.49	
1993–94	543 428	24 788 627	23 862 333	35 549	32 153 754	74.21	
1994–95	572 035	26 997 493	26 394 411	39 610	36 685 149	71.95	
1995–96	589 501	28 611 325	28 372 962	41 964	39 670 986	71.52	
1996–97	592 477	29 040 584	29 344 131	43 024	41 423 354	70.84	
1997–98	589 262	29 358 221	29 780 624	42 291	41 077 354	72.50	
1998–99	596 302	29 733 510	30 390 004	42 322	41 276 389	73.63	
1999–00	595 629	31 365 384	32 203 645	43 442	42 669 709	75.47	
2000–01	625 903	34 105 561	35 014 922	47 541	46 709 057	74.96	
2001–02	493 750	30 510 909	32 300 227	41 596	42 265 977	76.42	
2002–03	484 895	32 104 317	35 103 726	43 207	45 534 719	77.09	
2003–04	501 771	36 410 853	40 402 092	47 683	51 741 384	78.08	
2004–05	544 317	40 435 504	45 047 723	53 859	58 303 803	77.26	
2005–06	545 410	42 531 425	47 782 489	56 532	61 808 822	77.31	
2006–07	541 497	45 827 236	52 022 148	59 121	65 670 698	79.22	
2007–08	562 366	49 278 702	56 191 023	63 873	71 066 014	79.07	
2008–09	563 251	50 238 844	57 551 882	65 494	73 181 409	78.64	
2009–10	578 305	51 756 690	59 026 300	66 600	74 216 666	79.54	
2010–11	611 232	54 747 719	63 154 462	70 628	80 274 641	78.67	253.37
2011–12	615 706	54 972 783	64 330 105	71 105	81 619 449	78.82	236.44
2012–13	641 998	57 122 883	67 183 928	76 690	87 554 957	76.73	215.09
2013–14	643 119	57 715 710	68 079 353	77 740	89 542 357	76.03	203.53

^{18, 20, 21} See end notes.

Note: Data are not readily available for missing years.

Source: BITRE (2014g).

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

Financial year	Sydney	Melbourne	Brisbane	Perth	Adelaide	Gold Coast	Cairns	Canberra	Darwin	Hobart	Townsville
1985–86	9 498	6 476	3 457	1 939	2 082	778	578	1 008	407	506	1 030
1986–87	10 187	6 776	3 728	2 098	2 083	930	742	1 043	420	494	1 010
1987–88	11 510	7 448	4 325	2 226	2 239	1 120	934	1 117	469	539	1 007
1988–89	12 100	7 743	4 834	2 338	2 290	1 259	1 054	1 089	496	544	908
1989–90	10 108	6 511	3 933	1 999	1 825	659	840	721	398	455	455
1990–91	12 361	8 346	5 246	2 508	2 461	1 090	1 288	1 124	496	590	512
1991–92	15 070	10 196	6 644	3 026	3 006	1 495	1 776	1 361	563	684	482
1992–93	15 486	10 255	6 900	2 997	3 033	1 564	1 948	1 382	610	706	555
1993–94	16 650	10 884	7 493	3 429	3 251	1 711	2 223	1 514	707	743	514
1994–95	18 335	11 992	8 509	3 833	3 500	1 879	2 419	1 679	824	815	577
1995–96	19 878	12 972	9 236	4 145	3 743	1 993	2 595	1 750	932	850	598
1996–97	20 637	13 419	9 683	4 484	3 768	1 937	2 657	1 735	984	841	607
1997–98	21 013	13 791	9 737	4 624	3 949	1 868	2 598	1 825	1 011	854	628
1998–99	21 585	14 131	9 834	4 677	4 046	1 864	2 656	1 821	1 028	860	653
1999–00	23 098	15 146	10 534	4 891	4 186	1 959	2 718	1 969	1 057	909	682
2000–01	25 814	16 881	12 467	5 162	4 443	1 888	2 891	2 107	1 078	974	732
2001–02	23 150	15 967	11 774	4 766	4 175	1 736	2 642	1 841	963	958	696
2002–03	23 447	16 382	11 841	5 189	4 351	2 178	2 900	1 916	985	1 010	778
2003–04	26 090	18 631	13 780	5 889	4 893	2 504	3 222	2 303	1 073	1 226	923
2004–05	27 954	20 274	15 358	6 525	5 363	3 142	3 551	2 479	1 211	1 523	1 055
2005–06	28 996	21 041	16 016	7 005	5 767	3 515	3 731	2 550	1 219	1 606	1 161
2006–07	31 016	22 157	17 380	7 977	6 181	3 778	3 782	2 687	1 404	1 629	1 279
2007–08	32 701	23 943	18 298	8 952	6 619	4 323	3 777	2 853	1 562	1 758	1 366
2008–09	32 346	24 448	18 720	9 359	6 784	4 618	3 654	3 062	1 539	1 869	1 436
2009–10	34 461	25 918	18 897	9 993	7 016	5 186	3 550	3 258	1 569	1 856	1 518
2010–11	35 958	27 963	19 975	10 890	7 279	5 486	3 859	3 241	1 680	1 903	1 630
2011–12	35 987	27 956	20 874	11 997	6 947	5 327	3 943	3 159	2 045	1 815	1 627
2012–13	37 603	29 492	21 145	12 832	7 171	5 805	4 158	3 014	1 924	2 027	1 570
2013–14	38 629	30 896	21 821	12 936	7 577	5 784	4 296	2 858	2 045	2 107	1 523

Source: BITRE (2014h).

Table T 6.4b Activity at major airports—aircraft movements²²

Financial year	Sydney	Melbourne	Brisbane	Perth	Adelaide	Gold Coast	Cairns	Canberra	Darwin	Hobart	Townsville
1985–86	137 898	86 391	51 460	45 124	52 360	12 926	11 358	20 615	10 781	12 200	17 471
1986–87	144 160	88 271	55 946	36 222	50 587	16 715	14 568	21 568	12 294	11 728	17 644
1987–88	152 972	92 487	65 359	32 184	47 688	19 653	17 551	21 642	12 125	11 556	16 482
1988–89	163 946	95 555	70 241	31 799	49 656	22 224	19 694	20 726	10 794	10 095	17 425
1989–90	139 038	79 854	57 931	28 193	41 827	16 540	14 805	15 092	5 284	8 445	10 732
1990–91	165 921	102 204	77 181	35 522	50 315	22 609	25 480	22 432	7 199	10 140	13 732
1991–92	182 968	110 530	94 527	39 472	55 797	26 299	32 547	25 988	13 162	10 681	14 299
1992–93	202 555	119 862	99 854	39 590	58 533	26 358	35 854	29 054	15 323	10 929	14 386
1993–94	206 660	118 507	105 662	44 900	59 633	27 228	38 776	31 275	17 954	11 325	15 137
1994–95	221 208	127 155	116 880	50 002	63 253	26 828	41 903	35 625	20 663	12 381	15 928
1995–96	235 398	132 411	125 827	54 088	66 866	26 446	43 119	37 057	23 781	11 230	17 103
1996–97	243 592	136 339	125 108	57 286	68 970	24 203	44 009	38 173	24 303	9 468	18 035
1997–98	248 791	138 252	125 581	55 893	72 544	22 581	42 152	38 446	23 729	8 965	17 373
1998–99	249 175	141 560	129 230	53 609	73 258	22 260	41 594	38 077	25 138	9 697	17 943
1999–00	255 600	150 657	133 352	55 806	71 543	21 320	41 415	41 025	22 374	10 776	17 994
2000–01	283 408	174 663	151 552	56 176	73 666	20 417	41 859	51 867	22 126	15 205	19 013
2001–02	227 644	147 150	125 469	45 051	66 533	16 153	35 161	39 716	17 253	12 266	12 687
2002–03	225 872	146 751	116 552	47 854	66 231	21 225	38 594	35 986	17 243	11 444	15 208
2003–04	241 787	157 524	123 901	51 283	67 051	20 837	41 965	39 418	16 508	12 729	17 402
2004–05	257 630	176 038	139 984	56 445	70 761	27 728	45 474	38 512	16 501	15 889	20 101
2005–06	258 923	175 435	141 785	57 972	70 829	27 471	46 547	38 182	16 416	14 335	22 156
2006–07	264 401	176 112	144 359	61 659	72 508	27 279	44 952	38 257	17 981	13 497	21 108
2007–08	275 226	186 431	150 895	68 985	74 772	31 691	43 488	41 177	19 270	14 488	20 120
2008–09	271 029	189 011	157 675	78 623	74 654	32 083	39 511	45 191	22 733	15 027	21 044
2009–10	279 356	194 298	157 756	82 349	74 504	35 297	38 958	44 345	26 310	15 166	25 840
2010–11	290 501	206 798	168 342	87 863	76 110	37 737	42 611	43 280	27 237	16 064	29 327
2011–12	291 310	205 916	178 195	93 590	72 259	35 698	43 529	42 938	26 829	14 529	28 110
2012–13	305 006	215 414	188 320	98 974	75 518	39 036	44 914	41 816	26 288	16 410	27 483
2013–14	307 707	223 519	195 451	101 046	77 025	38 831	44 763	42 306	26 999	16 667	26 353

²² See end notes.

Source: BITRE (2014h).

Table T 6.5 Domestic on-time performance²³

Financial year	Sectors scheduled	Cancellations <i>per cent</i>	Sectors flown	On-time departures <i>per cent</i>	On-time arrivals <i>per cent</i>
2004–05	430 714	0.9	426 662	87.0	86.4
2005–06	457 817	1.0	453 406	87.0	85.7
2006–07	467 907	0.8	463 981	86.9	85.6
2007–08	496 564	1.7	488 112	80.6	78.8
2008–09	502 291	1.7	493 710	81.1	79.7
2009–10	502 106	1.0	497 268	85.6	84.4
2010–11	527 708	1.6	519 255	80.6	78.8
2011–12	530 101	1.5	522 374	81.4	80.0
2012–13	563 636	1.7	554 258	81.1	78.8
2013–14	574 385	1.6	565 077	83.8	81.9

²³ See end notes.

Source: BITRE (2014f).

Table T 6.6 BITRE airfare index

Financial year	Business <i>index</i>	Economy <i>index</i>	Restricted economy <i>index</i>	Best discount <i>index</i>
1993–94	59.1	67.5		97.1
1994–95	62.8	69.1		96.2
1995–96	65.6	71.6		95.2
1996–97	71.7	76.1		104.6
1997–98	76.3	78.8		115.2
1998–99	79.3	81.0		114.7
1999–00	80.0	81.9		114.5
2000–01	89.0	91.6		101.0
2001–02	92.5	96.1		109.6
2002–03	96.9	97.2	102.8	105.7
2003–04	103.0	100.2	100.1	102.4
2004–05	109.8	106.7	106.8	88.0
2005–06	106.7	112.8	99.8	95.4
2006–07	111.9	120.0	103.6	100.7
2007–08	116.9	112.9	111.4	100.3
2008–09	124.6	104.2	116.1	87.1
2009–10	116.3	108.3	113.4	75.1
2010–11	124.5	114.4	112.0	70.8
2011–12	117.1	131.0	84.9	88.0
2012–13	89.5	154.6	91.5	83.5
2013–14	108.8	157.8	97.1	82.1

Note: Data are not readily available for missing years.

Note: Base of index: July 2003 = 100.0.

Source: BITRE (2014d).

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

Source: CASA (2014).

CHAPTER 7

Shipping

Figure T 7 Principal Australian ports, by commodity



Table T 7.1 Intercapital sea distances

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
	<i>kilometres</i>						
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 ^a	Total ^b
1992–93	1 104	676	1 251	416	1 219	233	221		2 591
1993–94	1 069	719	1 185	418	1 181	232	190		2 584
1994–95	1 085	688	1 296	361	1 216	213	228		2 618
1995–96	1 003	697	1 178	373	1 203	195	193		2 558
1996–97	1 236	803	1 354	422	1 404	237	248		2 936
1997–98	1 457	886	1 622	486	1 620	308	318		3 276
1998–99 ²⁴	1 304	815	1 506	420	1 548	279	280		3 068
1999–00	1 228	805	1 644	415	1 592	281	266		3 097
2000–01	1 193	758	1 596	449	1 513	296	256		3 040
2001–02	1 185	768	1 543	508	1 376	289	245		3 035
2002–03 ²⁵	1 434	877	2 294	591	2 129	407	292	55	3 023
2003–04	1 484	917	2 475	610	2 271	361	275	38	3 266
2004–05	1 466	965	2 524	580	2 342	386	309	26	3 351
2005–06	1 429	858	2 668	592	2 443	328	303	39	3 253
2006–07	1 562	921	2 924	521	2 634	369	321	32	3 613
2007–08	1 604	944	3 048	526	2 577	368	337	20	3 666
2008–09	1 653	877	3 109	599	2 857	337	344	30	3 861
2009–10	1 694	835	3 212	530	2 931	327	420	5	4 143
2010–11	1 884	1 025	3 121	716	3 284	338	401		4 315
2011–12	2 038	1 204	3 320	786	3 725	263	386	2	4 875
2012–13	2 115	1 184	3 436	734	3 932	285	375		5 016

^a "Other" includes state/territory not clearly specified in the source data.^b "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.^{24, 25} See end notes.

Source: BITRE (2014b).

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 ^a	Total	Within port calls ^b
1992–93	3 696	3 371	4 214	839	3 360	1 800	564	12	17 856	
1993–94	3 489	3 074	3 473	817	3 102	1 566	527	9	16 057	
1994–95	3 324	2 987	3 934	810	3 187	1 493	617	17	16 369	
1995–96	2 924	2 817	3 485	751	2 892	1 294	562	38	14 763	
1996–97	3 725	3 327	4 418	901	3 583	1 441	834	95	18 324	
1997–98	4 566	3 708	5 018	996	4 372	1 504	997	80	21 241	
1998–99 ²⁴	4 008	3 306	4 381	975	4 275	1 316	591	90	18 852	
1999–00	4 008	3 306	4 381	975	4 275	1 316	591	105	18 852	
2000–01	3 935	3 547	4 875	957	4 246	1 566	693	91	19 819	
2001–02	3 948	3 511	4 764	1 073	4 226	1 625	630	88	19 777	
2002–03 ²⁵	3 846	3 761	5 349	1 115	3 606	2 040	579	42	20 296	
2003–04	4 054	3 892	5 088	1 123	3 847	1 901	508	45	20 458	1 398
2004–05	4 260	3 993	5 204	1 059	4 028	2 117	514	28	21 203	1 289
2005–06	4 207	3 920	5 874	1 242	4 705	2 028	530	55	22 561	1 612
2006–07	4 269	4 015	6 543	1 080	5 507	1 982	587	33	24 016	2 090
2007–08	4 876	4 083	7 065	1 122	5 106	1 977	624	24	24 877	2 059
2008–09	4 580	3 659	6 513	1 093	5 730	1 814	684	35	24 108	2 014
2009–10	4 144	3 397	6 636	1 033	5 566	1 691	765	6	23 238	1 462
2010–11	5 082	4 032	6 616	1 271	7 584	1 769	728		27 082	3 520
2011–12	5 998	4 151	7 761	1 723	10 667	1 427	673	2	32 402	7 829
2012–13	6 661	4 334	9 284	1 945	13 517	1 540	788		38 073	11 989

^a "Other" includes state/territory not clearly specified in the source data.^b "Within port calls" includes port calls where the target port equals the previous port visited.^{24, 25} See end notes.

Source: BITRE (2014b).

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
1992–93	444	479	464	555	496	331	357	278
1993–94	461	481	493	541	488	235	326	253
1994–95	508	551	527	544	515	250	365	272
1995–96	499	498	495	555	426	284	339	268
1996–97	542	605	545	617	583	302	392	297
1997–98	597	675	636	717	709	384	521	307
1998–99 ²⁴	546	620	521	683	651	404	462	302
1999–00	489	651	512	665	595	419	514	331
2000–01	482	604	476	620	589	459	480	369
2001–02	487	551	451	610	626	466	241	346
2002–03 ²⁵	447	547	461	629	661	522	254	376
2003–04	478	564	478	626	687	633	393	332
2004–05	517	580	457	617	684	652	405	437
2005–06	445	610	449	593	653	676	459	516
2006–07	547	627	510	643	705	736	512	490
2007–08	491	632	517	599	706	795	532	485
2008–09	497	682	493	727	758	846	621	551
2009–10	475	653	476	699	808	875	651	589
2010–11	523	716	507	692	904	830	729	680
2011–12	646	812	579	774	979	903	709	801
2012–13	634	805	542	805	1010	943	729	858

^{24, 25} See end notes.

Source: BITRE (2014b).

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
1992–93	2 573	1 528	2 059	1 224	943	702	716	503
1993–94	2 312	1 276	2 008	1 213	862	498	631	460
1994–95	2 337	1 373	1 945	1 219	865	511	668	471
1995–96	2 223	1 261	1 781	1 149	696	534	595	438
1996–97	2 563	1 687	2 105	1 364	1 041	640	740	523
1997–98	2 774	1 844	2 449	1 668	1 418	737	957	613
1998–99 ²⁴	2 400	1 755	2 061	1 645	1 281	610	873	601
1999–00	2 597	1 940	2 106	1 514	1 205	667	960	590
2000–01	2 575	1 795	2 016	1 521	1 224	822	953	684
2001–02	2 618	1 752	1 931	1 504	1 452	980	353	623
2002–03 ²⁵	2 870	1 797	1 894	1 409	1 342	1 108	360	673
2003–04	2 915	1 727	2 044	1 403	1 380	1 236	698	547
2004–05	3 044	1 831	2 041	1 296	1 545	1 281	666	914
2005–06	3 054	2 099	2 152	1 375	1 403	1 410	939	1 206
2006–07	3 129	2 215	2 145	1 402	1 454	1 469	1 068	1 599
2007–08	3 088	2 170	2 254	1 410	1 873	1 665	1 067	1 155
2008–09	2 845	2 043	2 065	1 528	1 761	1 605	1 471	1 446
2009–10	2 625	1 927	1 796	1 452	1 617	1 583	1 426	1 278
2010–11	3 087	2 152	1 859	1 607	2 457	1 543	1 679	2 298
2011–12	3 166	2 488	1 863	2 410	3 042	2 154	2 258	3 198
2012–13	3 390	2 699	2 300	3 248	3 263	2 827	2 851	3 915

^{24, 25} See end notes.

Source: BITRE (2014b).

Table T 7.4 International sea freight to and from Australia

Financial year	Bulk	Non-bulk <i>million tonnes</i>	Total
1995–96	398.5	21.4	420.0
1996–97	429.6	24.2	453.8
1997–98	451.4	27.6	479.0
1998–99	458.5	29.6	488.1
1999–00	487.2	31.5	518.7
2000–01	520.0	29.9	550.0
2001–02	526.6	32.2	558.7
2002–03	557.3	34.3	591.6
2003–04	585.4	37.1	622.5
2004–05	631.1	49.4	680.6
2005–06	649.4	46.5	695.9
2006–07	702.2	31.6	733.8
2007–08	752.8	36.8	789.6
2008–09	²⁶ 787.2	²⁶ 47.6	²⁶ 834.8
2009–10	893.6	54.0	947.6
2010–11	917.9	55.5	973.4
2011–12	1 007.2	60.9	1 068.1
2012–13	1 102.6	66.6	1 169.2

²⁶ See end notes.

Source: BITRE estimates based on ABS (2014g).

Table T 7.5a Cargo loaded (including exports) at Australian ports, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Other	Total
<i>million tonnes</i>									
1995–96	76.6	18.5	106.1	13.1	190.1	9.0	6.1	1.2	420.7
1996–97	80.7	13.8	98.2	8.5	191.5	3.9	6.0	1.2	453.1
1997–98	96.3	20.6	119.0	13.8	213.7	8.6	6.4	1.2	479.6
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	7.2	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	12.5	351.4	11.9	10.3	1.9	713.5
2007–08 ²⁷	114.7	20.6	199.5	16.8	388.6	13.1	10.7	2.3	766.4
2008–09	116.0	19.1	205.3	18.3	419.4	11.7	12.7	2.2	804.8
2009–10	125.4	19.2	228.8	19.2	493.9	10.9	14.7	1.9	914.0
2010–11	139.3	21.8	210.2	23.8	511.8	10.5	14.0	1.4	932.8
2011–12	157.3	23.8	217.9	27.9	571.3	9.6	12.8	3.0	1 023.4
2012–13	172.6	25.5	237.5	25.9	633.3	8.2	15.4	0.7	1 119.2

²⁷ See end notes.

Source: ABS (2014g) and BITRE (2014b).

Table T 7.5b Cargo discharged (including imports) at Australian ports, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Total
<i>million tonnes</i>								
1995–96	31.8	15.2	24.9	6.8	11.2	3.8	1.5	95.1
1996–97	13.3	10.3	12.2	3.6	8.5	0.4	1.4	99.9
1997–98	34.2	18.0	26.9	8.4	12.0	4.3	1.8	105.6
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	6.1	2.2	123.3
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	9.8	16.8	4.3	6.5	137.9
2007–08 ²⁷	34.4	28.4	39.8	10.6	19.0	5.6	6.6	144.5
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	28.2	41.8	7.6	19.1	5.1	7.4	144.3
2011–12	31.2	27.9	43.5	8.8	20.6	5.0	6.9	143.8
2012–13	28.8	28.3	48.1	8.4	21.0	4.8	7.9	147.2

²⁷ See end notes.

Source: ABS (2014g) and BITRE (2014b).

Table T 7.6a Cargo loaded (including exports), by selected Australian ports²⁸

Financial year	Port Hedland	Dampier	Newcastle	Hay Point	Gladstone	Port Walcott	Weipa	Port Kembla
<i>million tonnes</i>								
1995–96	63.9	70.2	53.0	45.8	27.3	25.1	9.9	17.0
1996–97	68.3	78.0	60.4	46.3	28.3	25.0	10.7	18.7
1997–98	69.5	87.5	70.0	52.0	30.2	22.2	10.9	17.7
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 ²⁷	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	59.6	80.9	22.4	19.6
2011–12	243.9	173.6	126.2	83.3	66.5	81.8	24.9	20.9
2012–13	286.5	181.2	146.3	96.4	65.1	84.8	29.0	18.4

^{27, 28} See end notes.

Source: ABS (2014g) and BITRE (2014b).

Table T 7.6b Cargo discharged (including imports), by selected Australian ports²⁸

Financial year	Gladstone	Port Kembla	Geelong	Townsville	Newcastle	Bunbury	Devonport	Dampier
<i>million tonnes</i>								
1995–96	9.3	9.5	3.8	4.3	6.4	0.8	0.7	0.3
1996–97	9.9	9.1	4.7	4.8	6.2	0.6	0.9	0.3
1997–98	9.4	11.5	5.1	4.4	6.6	0.9	0.9	0.2
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 ²⁷	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	5.1	7.8	6.7	2.4	1.7	1.4	1.7

^{27, 28} See end notes.

Source: ABS (2014g) and BITRE (2014b).

Table T 7.7a Cargo loaded (including exports), by capital city ports²⁸

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
				<i>million tonnes</i>			
1995–96	3.8	7.7	9.4	3.4	10.9	0.7	0.9
1996–97	4.7	8.8	10.3	4.4	11.9	0.3	1.3
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	4.2
2007–08 ²⁷	6.7	11.5	13.4	4.4	15.2	1.8	4.6
2008–09	5.4	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	6.5
2011–12	7.5	15.1	19.2	9.2	14.3	0.9	5.5
2012–13	6.9	14.9	19.6	8.3	17.1	0.7	6.7

^{27, 28} See end notes.

Source: ABS (2014g) and BITRE (2014b).

Table T 7.7b Cargo discharged (including imports), by capital city ports²⁸

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
				<i>million tonnes</i>			
1995–96	12.2	10.4	9.4	5.2	8.4	1.1	0.8
1996–97	15.7	10.6	9.6	5.8	9.9	0.2	0.8
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	7.5	12.4	1.1	5.3
2007–08 ²⁷	21.4	18.8	16.4	8.4	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	18.6	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	13.2	1.0	6.3

^{27, 28} See end notes.

Source: ABS (2014g) and BITRE (2014b).

Table T 7.8 Containers exchanged, selected Australian ports

Financial year	Melbourne	Sydney	Brisbane	Fremantle	Adelaide	Five ports
	<i>twenty foot equivalent units (TEU) exchanged</i>					
1993–94	801 344	587 670	228 055	169 174	64 619	1 850 862
1994–95	880 151	666 586	232 693	189 272	66 525	2 035 227
1995–96	923 142	684 714	249 439	202 680	69 355	2 129 330
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	772 400	557 039	274 501	5 768 095
2010–11	2 392 974	2 020 151	828 379	598 250	297 701	6 137 455
2011–12	2 568 164	2 036 064	1 025 069	656 918	323 834	6 610 049
2012–13	2 512 926	2 126 284	1 069 881	670 296	339 061	6 718 448

Source: BITRE (2014o).

Table T 7.9a 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
2001–02	94	23	117	62	55
2002–03	93	25	118	58	60
2003–04	89	26	115	60	55
2004–05	86	21	107	58	49
2005–06	82	23	105	59	46
2006–07	84	21	105	56	49
2007–08	89	19	108	54	54
2008–09	87	19	106	53	53
2009–10	92	20	112	52	60
2010–11	91	17	108	50	58
2011–12	82	22	104	48	56
2012–13	77	19	96	42	54

Source: BITRE (2014b).

Table T 7.9b 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
2001–02	3 473 723	12 811	3 486 534	1 734 477	1 752 057
2002–03	3 457 486	14 622	3 472 108	1 580 392	1 891 716
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	3 214 782	14 225	3 229 007	1 371 980	1 857 027
2007–08	3 467 238	13 175	3 480 413	1 233 554	2 246 859
2008–09	3 250 209	11 813	3 262 022	1 162 610	2 099 412
2009–10	3 674 997	13 611	3 688 608	1 237 731	2 450 877
2010–11	3 592 675	10 959	3 603 634	1 081 495	2 522 139
2011–12	3 524 996	15 515	3 540 511	931 106	2 609 405
2012–13	3 604 651	15 019	3 619 670	605 462	3 014 208

Source: BITRE (2014b).

Table T 7.9c 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
2001–02	2 515 439	19 186	2 534 625	1 421 136	1 113 489
2002–03	2 438 734	28 565	2 467 299	1 275 626	1 191 673
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	2 485 101	24 467	2 509 568	1 231 762	1 277 806
2007–08	2 681 141	23 686	2 704 827	1 145 751	1 559 076
2008–09	2 614 447	28 462	2 642 909	1 099 421	1 543 488
2009–10	2 901 860	25 438	2 927 298	1 125 834	1 801 464
2010–11	2 863 768	16 743	2 880 511	1 044 048	1 836 463
2011–12	2 781 497	26 700	2 808 197	945 252	1 862 945
2012–13	2 788 677	34 958	2 823 635	761 213	2 062 422

Source: BITRE (2014b).

Table T 7.9d 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)
2001–02	7.8	24.2	26.9	31.9	9.2	16.0
2002–03	7.6	22.6	26.5	27.1	16.1	15.5
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	0.5	10.5	26.1	36.3	26.7	18.0
2007–08	13.5	8.2	22.4	36.4	19.6	17.0
2008–09	21.5	7.5	23.0	23.7	24.3	16.9
2009–10	23.7	4.6	23.5	22.5	25.7	16.8
2010–11	25.5	5.0	16.6	29.8	23.1	16.9
2011–12	21.7	6.9	13.2	23.8	34.2	16.7
2012–13	10.3	23.8	16.4	17.7	31.8	15.9

Source: BITRE (2014b).

Table T 7.10a Ships in the major trading fleet—overseas trades, 2012–13—tankers

Name	Products	Ports called at	
		Australian	Overseas
Astrid	LPG	Brisbane, Hastings, Sydney	Fiji, New Caledonia, New Zealand
Boral Gas	LPG	Brisbane, Darwin, Gladstone, Townsville	Papua New Guinea, Singapore
Dapeng Moon	LNG	Dampier	China
Dapeng Star	LNG	Dampier	China, Singapore
Dapeng Sun	LNG	Dampier	China, Singapore
Northwest Sanderling	LNG	Dampier	Japan, Singapore
Northwest Sandpiper	LNG	Dampier	Japan, Republic of Korea, Singapore
Northwest Seaeagle	LNG	Dampier	Japan, Republic of Korea, Singapore
Northwest Shearwater	LNG	Dampier	Japan
Northwest Snipe	LNG	Dampier	China, Japan, Republic of Korea, Singapore
Northwest Stormpetrel	LNG	Dampier	Japan, Republic of Korea
Pacific Gas; SP Gas 02	LPG	Brisbane, Gladstone, Townsville	Fiji, Guam, Tonga, Samoa
Victoire	LPG	Brisbane, Hastings, Sydney	Cook Islands, Fiji, New Zealand, French Polynesia

Source: BITRE (2014b).

Table T 7.10b Ships in the major trading fleet—overseas trades, 2012–13—bulk carriers

Name	Products	Ports called at	
		Australian	Overseas
Cape Mary	Coal, dry bulk	Gladstone, Hay Point	Canary Islands, Republic of Korea
CSL Whyalla	Iron ore, dry bulk	Brisbane, Whyalla	China, Japan, Taiwan
Frontier	Coal	Newcastle	Indonesia, Republic of Korea
Goonyella Trader	Coal	Hay Point	Brazil, Canary Islands, Japan, Philippines, Singapore
Lowlands Brilliance	Iron ore, coal	Port Hedland, Port Kembla, Whyalla	China
Melia	Dry bulk	Gladstone, Newcastle, Weipa	China, Japan, Republic of Korea
Pacific Triangle	Iron ore, coal	Newcastle, Port Hedland, Port Kembla	Japan, Philippines
Pioneer	Sugar	Mackay, Sydney	Singapore
POS Ambition	Coal, dry bulk	Hay Point	Spain, Republic of Korea
Star Yandi	Iron ore, coal	Dampier, Newcastle, Port Walcott	China, Singapore
Tian Du Feng	Iron ore, dry bulk	Weipa	China

Source: BITRE (2014b).

Table T 7.10c Ships in the major trading fleet—overseas trades, 2012–13—container carriers

Name	Products	Ports called at	
		Australian	Overseas
ANL Binburra	General cargo	Melbourne, Sydney	USA
ANL Wangaratta	General cargo	Brisbane, Melbourne, Sydney	China, Japan, Taiwan
ANL Wyong	General cargo	Brisbane, Melbourne, Sydney	Japan, Taiwan
OOCL Brisbane	General cargo	Brisbane, Melbourne, Sydney	China, Taiwan
OOCL New Zealand	General cargo	Adelaide, Brisbane, Fremantle, Melbourne	Malaysia, New Zealand, Singapore

Source: BITRE (2014b).

Table T 7.10d Ships in the major trading fleet—overseas trades, 2012–13—livestock carriers

Name	Products	Ports called at	
		Australian	Overseas
Devon Express	Livestock	Darwin, Fremantle, Karumba, Portland, Wyndham	China, Indonesia, Malaysia, Pakistan, Philippines, Russia, Singapore
Maysora	Livestock	Adelaide, Fremantle	Egypt, Israel, Jordan, Qatar, Singapore
Nine Eagle	Livestock	Broome, Darwin, Karumba	Brunei, Indonesia, Malaysia, Vietnam
Torrens	Livestock	Darwin, Fremantle, Sydney, Wyndham	China, Indonesia, Republic of Korea, Pakistan, Singapore

Source: BITRE (2014b).

Table T 7.10e Ships in the major trading fleet—overseas trades, 2012–13—general cargo ships

Name	Products	Ports called at	
		Australian	Overseas
Antung;Tiare Moana	General cargo	Darwin	Singapore
Danny Rose	General cargo	Adelaide, Brisbane, Port Kembla, Thevenard	Fiji, New Zealand, Papua New Guinea
Kathryn Bay	General cargo	Darwin	Indonesia, Singapore
Norfolk Guardian	General cargo	Bell Bay, Eden, Yamba	Norfolk Island, New Zealand
Opal Harmony	General cargo	Broome, Bunbury, Dampier, Fremantle, Geraldton, Port Hedland, Port Walcott, Townsville	China, Indonesia, Republic of Korea, Singapore
Red Resource	General cargo	Broome, Dampier, Fremantle, Geraldton, Gove	Indonesia, Malaysia, Singapore, Thailand
Pacific Guardian	General cargo	Brisbane, Bunbury, Fremantle, Geraldton, Gladstone, Melbourne, Newcastle, Townsville, Yamba	Malaysia, New Zealand, Singapore, Thailand

Source: BITRE (2014b).

Table T 7.1 Ia Ships in the major trading fleet—coastal trades, 2012–13—tankers

Name	Products	Ports called at	
		Australian	Overseas
Alexander Spirit	Petroleum products	Brisbane, Cairns, Devonport, Gladstone, Hobart, Mackay, Port Kembla, Sydney, Townsville	Singapore
British Fidelity	Petroleum products	Adelaide, Fremantle	
British Loyalty	Petroleum products	Brisbane, Hobart, Melbourne, Newcastle, Port Kembla, Sydney	
Hugli Spirit	Petroleum products	Brisbane, Devonport, Gladstone, Hobart, Mackay, Port Kembla, Sydney, Townsville	
Maea	LPG	Brisbane, Devonport, Gladstone, Hastings, Hobart, Port Kembla, Sydney	Cook Islands, Fiji, New Caledonia, New Zealand
Sirius	Petroleum products	Darwin, Fremantle, Hobart, Melbourne, Sydney	Indonesia, Trinidad and Tobago
Zemira	Petroleum products	Geelong, Melbourne	

Source: BITRE (2014b).

Table T 7.1 Ib Ships in the major trading fleet—coastal trades, 2012–13—bulk carriers

Name	Products	Ports called at	
		Australian	Overseas
Aburri	Metal concentrates	Bing Bong	
CSL Atlantic	Cement, coal, gypsum	Adelaide, Brisbane, Bunbury, Fremantle, Geraldton, Gladstone, Melbourne, Port Kembla, Sydney, Thevenard	
CSL Brisbane	Alumina, cement, gypsum	Adelaide, Ardrossan, Brisbane, Devonport, Mackay, Melbourne, Newcastle, Port Kembla, Rockhampton, Sydney, Thevenard, Townsville, Whyalla	
CSL Melbourne	Dry bulk	Ardrossan, Gladstone, Hay Point, Newcastle, Port Kembla, Whyalla	China
CSL Pacific	Dry bulk	Adelaide, Ardrossan, Brisbane, Bunbury, Fremantle, Geelong, Geraldton, Gladstone, Melbourne, Port Kembla, Portland, Sydney, Thevenard, Townsville	
CSL Thevenard	Cement	Adelaide, Ardrossan, Brisbane, Devonport, Geelong, Geraldton, Gladstone, Melbourne, Port Kembla, Portland, Sydney, Thevenard	
Goliath	Cement	Devonport, Melbourne, Newcastle, Sydney	China, Taiwan
Goodwill	Coal	Gladstone, Newcastle	Republic of Korea
Iron Chieftain	Iron ore, coal	Ardrossan, Newcastle, Port Kembla, Port Latta, Sydney, Whyalla	
Lindesay Clark	Alumina, gypsum	Bunbury, Fremantle, Geelong	
Portland	Alumina	Bell Bay, Bunbury, Fremantle, Portland	
RTM Gladstone	Bauxite	Gladstone, Weipa	China
RTM Piiramu	Bauxite	Gladstone, Weipa	China, Philippines
RTM Twarra	Bauxite	Gladstone, Weipa	
RTM Wakmatha	Bauxite	Gladstone, Weipa	Philippines
RTM Weipa	Bauxite	Gladstone, Weipa	China
Stadacona	Dry bulk	Adelaide, Brisbane, Gladstone, Melbourne, Thevenard, Townsville	New Caledonia, Papua New Guinea, Taiwan
Wunma	Metal concentrates		Karumba

Source: BITRE (2014b).

Table T 7.11c Ships in the major trading fleet—coastal trades, 2012–13—general cargo

Name	Products	Ports called at	
		Australian	Overseas
Accolade II	General cargo	Adelaide, Klein Point	
Aurora Australis	General cargo	Hobart	Singapore
Hakula	General cargo	Adelaide, Brisbane, Burnie, Devonport, Geelong, Hobart, Newcastle, Port Kembla, Port Pirie, Portland	New Zealand
ICS Silver Lining	General cargo	Bell Bay, Burnie, Hobart, Newcastle, Port Kembla, Port Pirie, Whyalla	Singapore
Melville Bay	General cargo	Darwin	Indonesia
Newcastle Bay	General cargo	Cairns, Weipa	Germany
Searoad Mersey	General cargo	Devonport, Melbourne	
Searoad Tamar	General cargo	Brisbane, Devonport, Melbourne	
Spirit of Tasmania I	General cargo	Devonport, Melbourne	
Spirit of Tasmania II	General cargo	Devonport, Melbourne, Sydney	
Tasmanian Achiever	General cargo	Burnie, Melbourne	
Trinity Bay	General cargo	Cairns	
Victorian Reliance	General cargo	Burnie, Melbourne	
Trinity Bay	General cargo, passengers	Cairns	
Victorian Reliance	General cargo	Burnie, Melbourne	

Source: BITRE (2014b).

CHAPTER 8

Safety

Table T 8.1a Number of fatalities and fatality accidents by transport mode—accidents

Calendar year	Road	Rail	Marine	Aviation
1971				14
1972				23
1973				15
1974				17
1975				22
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	29
2008	1 315		37	27
2009	1 347		43	25
2010	1 233		^h 2	19
2011	1 151		^h 6	24
2012	1 189		^h 6	26
2013	1 106		^h 6	30

Note: Data are not readily available for missing years.

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

Source: ATSB (2014a), ATSB (2014b), BITRE (2014), Infrastructure (2012) and NMSC (2010).

Table T 8.1b Number of fatalities and fatality accidents by transport mode—fatalities

Calendar year	Road	Rail	Marine	Aviation
1971	3 590			35
1972	3 422			52
1973	3 679			26
1974	3 572			39
1975	3 694			49
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	2 801	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	1 491	28	53	27
2010	1 353	29	^h 2	24
2011	1 277	33	^h 6	38
2012	1 299	^g 20	^h 6	39
2013	1 193	^g 7	^h 6	46

Note: Data are not readily available for missing years.

^g 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.

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

Source: ATSB (2014a), ATSB (2014b), BITRE (2014), ONRSR (2014).

Table T 8.2a Fatality rate and injury rate, by transport mode—fatality rate

Calendar year	Road	Rail	Marine	Aviation
		<i>deaths per 100 000 population</i>		
1971	27.47			0.27
1972	25.72			0.39
1973	27.24			0.19
1974	26.03			0.28
1975	26.59			0.35
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	16.66	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	8.15	0.17	0.22	0.22
2004	7.94	0.16	0.25	0.17
2005	8.06	0.17	0.20	0.22
2006	7.81	0.19	0.24	0.19
2007	7.70	0.20	0.25	0.21
2008	6.76	0.14	0.19	0.20
2009	6.87	0.13	0.24	0.12
2010	6.14	0.14	^h 0.01	0.11
2011	5.72	0.15	^h 0.03	0.18
2012	5.72	^g 0.09	^h 0.03	0.18
2013	5.16	^g 0.03	^h 0.03	0.20

Note: Data are not readily available for missing years.

^g 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.

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

Source: ABS (2014m), ATSB (2014a), ATSB (2014b), BITRE (2014), NMSC (2010) and ONRSR (2014).

Table T 8.2b **Fatality rate and injury rate, by transport mode—injury rate**

Calendar year	Road ²⁹	Rail	Marine	Aviation
<i>serious injuries per 100 000 population</i>				
1971				0.18
1972				0.15
1973				0.17
1974				0.17
1975				0.19
1976				0.35
1977				0.36
1978				0.34
1979				0.34
1980				0.28
1981				0.33
1982				0.28
1983				0.29
1984				0.24
1985				0.23
1986				0.22
1987				0.36
1988				0.27
1989	254.97			0.45
1990	215.48			0.36
1991	188.51			0.23
1992	176.76			0.22
1993	176.43			0.33
1994	186.85			0.17
1995	190.13			0.27
1996	184.09			0.18
1997	175.98			0.16
1998				0.12
1999				0.11
2000				0.22
2001	³⁰ 137.52	0.43	0.45	0.16
2002	144.74	0.50	0.59	0.13
2003	139.60	0.26	0.40	0.13
2004	144.41	0.35	0.62	0.11
2005	147.96	0.35	0.67	0.03
2006	152.60	0.65	0.78	0.07
2007	157.39	0.87	0.61	0.08
2008	153.17	0.53	0.72	0.20
2009	157.30	0.41	0.45	0.09
2010		0.18		0.15
2011	148.08	0.30		0.18
2012				0.18
2013				0.08

Note: Data are not readily available for missing years.

^{29, 30} See end notes.

Source: ABS (2014m), AIHW (2009) & updates, ATSB (2014a), ATSB (2014b), BITRE (2014I), Infrastructure (2012) and NMSC (2010).

Table T 8.3a Fatality rate and injury rate by transport mode—fatality rate

Calendar year	Road	Rail	Aviation
	<i>deaths per billion passenger km travelled</i>		
1971	29.69		6.17
1972	26.69		8.63
1973	27.58		4.03
1974	25.10		5.08
1975	24.87		5.92
1976	23.26		6.99
1977	22.16		6.88
1978	22.18		7.30
1979	20.46	5.77	4.79
1980	18.99	6.35	6.18
1981	18.92	7.78	5.42
1982	17.72	7.97	5.38
1983	14.89	7.43	5.26
1984	14.51	8.60	4.51
1985	14.50	7.43	4.76
1986	13.81	7.26	4.37
1987	12.96	5.77	2.96
1988	12.88	6.58	4.63
1989	11.93	6.70	5.44
1990	9.66	7.57	7.11
1991	8.80	4.13	3.26
1992	8.10	6.10	3.05
1993	7.80	5.32	2.67
1994	7.52	4.35	2.55
1995	7.64	4.45	1.90
1996	7.34	2.84	1.77
1997	6.55	3.96	1.27
1998	6.43	3.98	1.85
1999	6.33	3.90	1.49
2000	6.39	3.34	1.35
2001	6.16	4.42	1.30
2002	5.93	3.39	1.04
2003	5.47	2.79	1.24
2004	5.11	2.77	0.83
2005	5.24	2.95	0.99
2006	5.21	3.16	0.83
2007	5.14	3.23	0.84
2008	4.56	2.21	0.76
2009	4.72	1.89	0.47
2010	4.22	1.97	0.40
2011	3.94	2.20	0.60
2012	3.96	1.32	0.60
2013	3.61	0.46	0.68

Note: Data are not readily available for missing years.

Source: ATSB (2012), ATSB (2014a), BITRE (2014), BTRE (2007) and BITRE estimates.

Table T 8.3b Fatality rate and injury rate by transport mode—**injury rate**

Calendar year	Road ²⁹ <i>serious injuries per billion passenger km travelled</i>	Rail	Aviation
1971			4.23
1972			3.32
1973			3.57
1974			3.00
1975			3.26
1976			5.91
1977			6.38
1978			5.51
1979			5.32
1980			3.96
1981			4.58
1982			3.86
1983			4.38
1984			3.48
1985			3.18
1986			2.84
1987			4.41
1988			3.04
1989	182.57		4.98
1990	152.41		5.42
1991	135.67		2.45
1992	126.83		1.84
1993	124.45		2.77
1994	130.15		1.27
1995	130.06		1.79
1996	125.63		1.14
1997	120.77		0.97
1998			0.73
1999			0.65
2000			1.28
2001	³⁰ 94.65	6.93	0.87
2002	98.36	8.29	0.79
2003	92.81	4.32	0.73
2004	93.00	5.97	0.56
2005	96.14	6.07	0.15
2006	101.70	10.93	0.31
2007	105.20	14.08	0.32
2008	103.21	8.14	0.74
2009	107.98	6.16	0.35
2010		2.58	0.54
2011	101.93	4.41	0.60
2012			0.60
2013			0.27

^{29, 30} See End Notes

Note: Data are not readily available for missing years.

Source: AIHW (2009) & updates, ATSB (2012), ATSB (2014a), BITRE (2014f), BTRE (2007) and BITRE estimates.

Table T 8.4a Number of road accidents and casualties by accident severity—
accidents

Calendar year	Fatal	Serious injuries ²⁹
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	1 347	
2010	1 233	
2011	1 151	
2012	1 189	
2013	1 106	

²⁹ See end notes.

Note: Data are not readily available for missing years.

Source: BITRE (2014I), Infrastructure (2012).

Table T 8.4b Number of road accidents and casualties by accident severity—
casualties

Calendar year	Fatal	Serious injuries ²⁹
1971	3 590	
1972	3 422	
1973	3 679	
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	2 801	42 872
1990	2 331	36 772
1991	2 113	32 583
1992	1 974	30 924
1993	1 953	31 170
1994	1 928	33 356
1995	2 017	34 354
1996	1 970	33 703
1997	1 767	32 583
1998	1 755	
1999	1 764	
2000	1 817	
2001	1 737	³⁰ 26 694
2002	1 715	28 440
2003	1 621	27 526
2004	1 583	28 782
2005	1 627	29 850
2006	1 598	31 204
2007	1 603	32 777
2008	1 437	32 543
2009	1 491	34 116
2010	1 353	
2011	1 277	
2012	1 299	
2013	1 193	

^{29, 30} See end notes.

Note: Data are not readily available for missing years.

Source: AIHW (2009) & updates, BITRE (2014), Infrastructure (2012).

Table T 8.5a Road accident rate and casualty rate, by accident severity—accident rate

Calendar year	Fatal	Serious injuries ²⁹
	<i>accidents per 100,000 population</i>	
1989	14.32	140.34
1990	12.01	124.94
1991	10.84	109.72
1992	9.92	103.48
1993	9.83	102.08
1994	9.53	102.90
1995	10.08	103.00
1996	9.66	100.06
1997	8.65	97.07
1998	8.41	
1999	8.21	
2000	8.50	
2001	8.16	
2002	7.76	
2003	7.26	
2004	7.18	
2005	7.22	
2006	7.02	
2007	6.90	
2008	6.19	
2009	6.21	
2010	5.60	
2011	5.15	
2012	5.23	
2013	4.78	

²⁹ See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014m), BITRE (2014l), Infrastructure (2012).

Table T 8.5b Road accident rate and casualty rate, by accident severity—
casualty rate

Calendar year	Fatal <i>casualties per 100,000 population</i>	Serious injuries ²⁹
1971	27.47	
1972	25.72	
1973	27.24	
1974	26.03	
1975	26.59	
1976	25.53	
1977	25.21	
1978	25.80	
1979	24.17	
1980	22.27	
1981	22.25	
1982	21.42	
1983	17.90	
1984	18.11	
1985	18.63	
1986	18.03	
1987	17.04	
1988	17.46	
1989	16.66	263.60
1990	13.66	222.43
1991	12.23	193.78
1992	11.28	181.21
1993	11.05	180.34
1994	10.80	190.66
1995	11.16	194.45
1996	10.76	188.79
1997	9.54	180.33
1998	9.38	
1999	9.32	
2000	9.49	
2001	8.95	³⁰ 137.52
2002	8.73	144.74
2003	8.15	138.37
2004	7.94	143.02
2005	8.06	146.38
2006	7.81	150.78
2007	7.70	155.56
2008	6.76	151.39
2009	6.87	155.43
2010	6.14	
2011	5.72	
2012	5.72	
2013	5.16	

^{29, 30} See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014m), AIHW (2009) & updates, BITRE (2014l), Infrastructure (2012).

Table T 8.6a Number of fatal road accidents and fatalities, by state/territory—
accidents

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	409	268	296	104	176	52	31	11	1 347
2010	365	260	236	105	176	29	46	16	1 233
2011	336	259	227	95	167	23	38	6	1 151
2012	336	261	255	86	170	29	40	12	1 189
2013	322	224	246	90	149	35	33	7	1 106

Source: BITRE (2014).

Table T 8.6b Number of fatal road accidents and fatalities, by state/territory—fatalities

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	960	776	428	222	242	80	61	32	2 801
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	454	290	331	119	191	63	31	12	1 491
2010	405	288	249	118	193	31	50	19	1 353
2011	364	287	269	103	179	24	45	6	1 277
2012	369	282	280	94	182	31	49	12	1 299
2013	340	242	271	98	162	36	37	7	1 193

Source: BITRE (2014).

Table T 8.7a Fatal road accident rate and fatality rate, by state/territory—
accident rate

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>fatal accidents per 100 000 population</i>									
1989	13.57	15.76	13.30	14.16	13.56	14.94	35.36	9.41	14.32
1990	12.03	11.24	11.97	13.06	11.22	13.63	32.98	8.50	12.01
1991	9.92	9.84	12.12	11.48	11.43	14.14	36.26	5.53	10.84
1992	9.66	8.19	11.98	9.75	10.31	12.56	24.99	6.11	9.92
1993	8.63	8.52	11.48	13.08	11.38	9.96	24.01	3.68	9.83
1994	9.11	7.69	11.42	9.75	11.45	11.00	20.76	4.98	9.53
1995	9.19	8.21	12.50	11.09	11.19	11.19	31.54	4.59	10.08
1996	8.67	8.38	10.12	10.99	12.46	11.17	31.90	5.51	9.66
1997	8.36	7.53	9.46	8.30	10.25	6.12	29.96	5.50	8.65
1998	7.75	7.50	7.45	10.20	10.92	9.96	31.07	6.45	8.41
1999	7.89	7.36	7.80	8.81	10.22	9.97	22.83	5.44	8.21
2000	8.37	7.87	7.72	10.03	9.82	8.06	24.54	5.08	8.50
2001	7.39	8.41	8.16	9.06	7.94	11.02	21.74	4.70	8.16
2002	7.56	7.42	7.62	9.07	8.25	7.40	20.06	2.48	7.76
2003	7.24	5.97	7.46	8.88	7.94	8.17	21.99	3.07	7.26
2004	6.89	6.33	7.55	8.38	8.18	10.76	16.78	2.74	7.25
2005	6.86	6.29	7.55	8.25	7.51	10.08	24.77	7.54	7.30
2006	6.66	6.11	7.81	6.70	8.83	8.79	19.61	3.58	7.10
2007	5.93	5.61	8.22	6.81	10.16	7.91	21.99	4.09	6.98
2008	5.08	5.29	6.97	5.48	8.52	7.42	30.47	4.02	6.19
2009	5.80	4.99	6.84	6.46	7.86	10.31	13.72	3.10	6.21
2010	5.11	4.76	5.36	6.45	7.68	5.70	20.02	4.42	5.60
2011	4.65	4.68	5.07	5.79	7.10	4.50	16.43	1.63	5.15
2012	4.60	4.63	5.58	5.19	6.97	5.66	16.96	3.20	5.23
2013	4.35	3.90	5.28	5.39	5.91	6.82	13.71	1.83	4.78

Source: ABS (2014m), BITRE (2014l).

Table T 8.7b Fatal road accident rate and fatality rate, by state/territory—
fatality rate

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>fatalities per 100 000 population</i>									
1971	26.43	25.63	32.08	24.33	31.50	32.66	58.32	13.23	27.47
1972	22.77	24.99	30.13	25.69	31.42	26.48	57.56	20.03	25.72
1973	25.40	25.22	32.69	26.78	32.51	26.05	56.63	16.73	27.24
1974	26.05	21.46	29.33	30.77	29.62	27.33	42.75	16.65	26.03
1975	26.12	24.03	30.96	26.79	26.32	29.75	68.91	16.08	26.59
1976	25.49	24.62	27.19	24.10	26.14	26.19	51.92	18.29	25.53
1977	25.35	24.86	26.86	23.79	24.08	26.99	45.22	13.57	25.21
1978	27.39	22.49	28.18	22.45	28.10	25.38	61.83	13.76	25.80
1979	25.20	21.77	27.81	23.75	22.38	22.10	46.43	10.87	24.17
1980	25.20	16.78	24.58	20.56	23.09	23.61	53.28	13.38	22.27
1981	24.66	19.41	25.33	16.83	18.31	25.98	57.09	12.74	22.25
1982	23.63	17.76	24.83	20.28	17.63	22.33	46.04	11.16	21.42
1983	18.05	16.45	20.55	19.77	14.83	16.17	35.32	11.72	17.90
1984	19.19	16.12	20.01	17.06	15.89	18.96	35.17	15.10	18.11
1985	19.53	16.58	19.52	19.54	17.13	17.61	45.11	13.13	18.63
1986	18.60	16.05	18.33	20.83	15.63	20.38	45.98	12.36	18.03
1987	17.07	16.75	16.52	18.38	14.24	17.14	53.10	13.56	17.04
1988	18.17	16.45	19.67	15.87	14.98	16.62	32.07	11.39	17.46
1989	16.62	17.96	15.14	15.64	15.33	17.57	37.85	11.58	16.66
1990	13.66	12.52	13.76	15.78	12.15	15.36	41.53	9.21	13.66
1991	11.24	11.38	13.34	12.72	12.65	16.50	40.49	5.88	12.23
1992	10.88	8.89	13.73	11.33	12.06	15.75	32.13	6.79	11.28
1993	9.68	9.73	12.73	14.92	12.46	12.30	25.77	4.01	11.05
1994	10.66	8.40	13.12	10.84	12.39	12.48	23.65	5.64	10.80
1995	10.12	9.25	13.97	12.32	12.05	12.03	34.36	4.92	11.16
1996	9.36	9.14	11.53	12.28	13.99	13.49	39.59	7.46	10.76
1997	9.18	8.20	10.60	9.99	10.97	6.76	32.10	5.50	9.54
1998	8.77	8.41	8.09	11.28	12.23	10.17	36.34	7.10	9.38
1999	9.00	8.17	8.97	10.08	11.79	11.24	25.42	6.08	9.32
2000	9.30	8.58	8.90	11.03	11.31	9.12	26.08	5.71	9.49
2001	7.97	9.24	8.93	10.12	8.68	12.93	25.28	5.01	8.95
2002	8.46	8.16	8.67	10.12	9.29	7.83	27.58	3.10	8.73
2003	8.08	6.70	8.14	10.25	9.22	8.58	26.49	3.38	8.15
2004	7.67	6.96	8.12	9.10	8.99	12.00	17.27	2.74	7.94
2005	7.59	6.93	8.42	9.62	8.10	10.49	26.71	7.85	8.06
2006	7.36	6.66	8.36	7.54	9.75	11.24	21.53	3.88	7.81
2007	6.37	6.44	8.76	7.89	11.16	9.12	27.13	4.09	7.70
2008	5.39	5.76	7.77	6.23	9.44	7.82	34.11	4.02	6.76
2009	6.44	5.40	7.65	7.40	8.53	12.49	13.72	3.38	6.87
2010	5.67	5.27	5.65	7.25	8.42	6.09	21.76	5.25	6.14
2011	5.04	5.18	6.01	6.28	7.61	4.69	19.46	1.63	5.72
2012	5.05	5.01	6.13	5.68	7.47	6.05	20.77	3.20	5.72
2013	4.59	4.22	5.82	5.87	6.43	7.02	15.37	1.83	5.16

Source: ABS (2014m), BITRE (2014l).

Table T 8.8 Number of road accidents involving serious injuries, by state/
territory—serious injuries^{i, 29}

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1989	10 384	19 416	4 519	2 884	3 434	1 133	835	267	42 872
1990	9 435	14 902	4 534	2 829	2 948	1 236	633	255	36 772
1991	8 385	12 942	4 245	2 375	2 860	1 037	496	243	32 583
1992	7 801	12 318	4 583	1 802	2 797	975	443	205	30 924
1993	7 893	12 225	4 661	1 767	2 905	1 015	503	201	31 170
1994	7 520	12 570	5 313	1 754	4 484	1 022	463	230	33 356
1995	7 690	12 879	5 373	1 771	4 917	1 052	463	209	34 354
1996	7 448	12 820	5 319	2 070	4 476	791	548	231	33 703
1997	7 264	12 149	4 872	1 788	4 981	776	501	252	32 583
1998		13 287	5 139	1 840	5 018	831	535	247	
1999		12 741	5 231	2 567	4 155	865	539	159	
2000		13 203	5 501	2 497	3 633	923	506	147	
2000–01 ³⁰									26 694
2001–02									28 440
2002–03									27 526
2003–04	9 243	7 834	5 376	2 271	2 293	602	328	431	28 782
2004–05	9 393	8 196	5 874	2 348	2 221	640	361	392	29 850
2005–06	10 108	8 235	5 986	2 454	2 347	736	492	406	31 204
2006–07	10 296	8 551	6 542	2 723	2 411	739	539	498	32 777
2007–08	9 466	8 849	6 717	2 840	2 475	714	568	511	32 543
2008–09	10 050	8 818	7 170	3 152	2 445	775	613	513	34 116
2009–10									
2010–11									
2011–12									
2012–13									34 011

ⁱ Includes non-fatal serious injuries that were sustained in an accident that involved a fatality.

^{29, 30} See end notes.

Note: Data are not readily available for missing years.

Source: AIHW (2009) & updates, Infrastructure (2012), BITRE estimates based on unpublished AIHW data (2014).

Table T 8.9 Road accident rate and serious injury rate, by state/territory—
injury rate²⁹

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1989	179.77	449.43	159.82	203.24	217.56	248.87	518.06	96.59	254.97
1990	161.72	340.34	156.38	197.55	182.76	267.42	386.62	90.36	215.48
1991	142.15	292.78	143.37	164.21	174.81	222.15	299.71	83.99	188.51
1992	130.83	276.50	151.26	123.72	168.69	207.52	263.56	69.57	176.76
1993	131.44	273.34	149.88	120.97	173.16	215.20	294.61	67.16	176.43
1994	124.09	280.11	166.70	119.63	263.30	216.10	267.05	76.29	186.85
1995	125.51	285.10	164.56	120.52	283.60	222.09	260.77	68.57	190.13
1996	120.04	281.13	159.31	140.41	253.56	166.72	301.36	74.94	184.09
1997	115.72	264.27	143.52	120.70	277.49	163.85	268.04	81.54	175.98
1998		286.49	149.05	123.53	275.31	176.07	281.76	79.71	
1999		271.87	149.40	171.38	224.63	183.48	279.66	50.91	
2000		278.47	154.46	165.91	193.82	195.80	258.74	46.63	
2000–01 ³⁰	130.76	157.39	127.48	149.23	105.62	130.57	219.95	72.34	137.52
2001–02	136.16	169.58	139.36	145.68	107.06	118.87	228.17	90.80	144.74
2002–03	127.21	163.54	133.10	150.07	102.45	119.54	221.95	74.62	139.60
2003–04	138.98	159.00	140.37	148.61	115.83	124.59	161.85	131.03	144.41
2004–05	140.34	164.27	149.90	152.59	110.43	131.63	175.32	118.29	147.96
2005–06	149.91	162.71	149.35	158.06	114.46	150.42	235.34	121.13	152.60
2006–07	150.66	165.93	159.13	173.37	114.47	149.82	252.17	145.34	157.39
2007–08	136.33	168.35	159.19	178.77	113.97	143.21	258.33	146.68	153.17
2008–09	142.48	164.15	165.64	195.91	109.14	153.66	271.21	144.59	157.30
2009–10									
2010–11									
2011–12									
2012–13									147.03

^{29, 30} See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014m), AIHW (2009) & updates, Infrastructure (2012), BITRE estimates based on unpublished AIHW data (2014).

Table T 8.10 Number of rail casualties, by severity

Calendar year	Fatal	Serious injuries	NSW ambulance transfers ³¹
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	
2012	⁸ 20	^{8,i} 74	³¹ 505
2013	⁸ 7	^{8,i} 48	³¹ 463

⁸ 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.

ⁱ Serious injury data from NSW are not included.

³¹ See end notes.

Note: Data are not readily available for missing years.

Source: ATSB (2004), ATSB (2010), ATSB (2012), ONRSR (2014).

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

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT ³²	Total
2001	34	10	5	2	2	0	0		53
2002	16	14	3	4	2	0	1		40
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	0	1		33
2012	8 ⁸ 3	8 ⁸ 10	8 ⁸ 7	8 ⁸ 1	8 ⁸ 2	8 ⁸ 0	8 ⁸ 0		8 ⁸ 20
2013	8 ⁸ 1	8 ⁸ 5	8 ⁸ 0	8 ⁸ 1	8 ⁸ 1	8 ⁸ 0	8 ⁸ 0		8 ⁸ 7

⁸ 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.

³² See end notes.

Source: ATSB (2004), ATSB (2010), ATSB (2012), ONRSR (2014).

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

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT ³²	Total
2001	0.52	0.21	0.14	0.13	0.11	0.00	0.00		0.27
2002	0.24	0.29	0.08	0.26	0.10	0.00	0.50		0.20
2003	0.27	0.20	0.08	0.00	0.10	0.00	0.00		0.17
2004	0.22	0.24	0.05	0.13	0.05	0.00	0.49		0.16
2005	0.16	0.28	0.15	0.26	0.00	0.00	0.00		0.17
2006	0.13	0.27	0.22	0.13	0.19	0.20	0.00		0.19
2007	0.12	0.44	0.07	0.32	0.14	0.00	0.00		0.20
2008	0.10	0.32	0.14	0.06	0.00	0.00	0.00		0.14
2009	0.07	0.28	0.07	0.12	0.09	0.00	0.44		0.13
2010	0.14	0.16	0.09	0.12	0.13	0.20	0.00		0.13
2011	0.18	0.14	0.11	0.18	0.13	0.00	0.43		0.15
2012	8 ⁸ 0.04	8 ⁸ 0.18	8 ⁸ 0.15	8 ⁸ 0.06	8 ⁸ 0.08	8 ⁸ 0.00	8 ⁸ 0.00		8 ⁸ 0.09
2013	8 ⁸ 0.01	8 ⁸ 0.09	8 ⁸ 0.00	8 ⁸ 0.06	8 ⁸ 0.04	8 ⁸ 0.00	8 ⁸ 0.00		8 ⁸ 0.03

⁸ 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.

³² See end notes.

Source: ABS (2014m), ATSB (2004), ATSB (2010), ATSB (2012), ONRSR (2014).

Table T 8.13a Number of aviation accidents and casualties by accident severity—
accidents

Calendar year	Fatal accidents	Non-fatal accidents
1971	14	225
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	29	133
2008	27	163
2009	25	144
2010	19	183
2011	24	168
2012	26	177
2013	30	147

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

Source: ATSB (2014a).

Table T 8.13b Number of aviation accidents and casualties by accident severity—
casualties

Calendar year	Fatalities	Serious injuries
1971	35	24
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	27	20
2010	24	32
2011	38	38
2012	39	39
2013	46	18

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

Source: ATSB (2014a).

Table T 8.14a Aviation accident rate and casualty rate, by accident severity—
accident rate

Calendar year	Fatal	Non-fatal
	<i>aviation accident rate per 100 000 population</i>	
1971	0.11	1.72
1972	0.17	1.33
1973	0.11	1.68
1974	0.12	1.76
1975	0.16	1.48
1976	0.19	2.03
1977	0.22	1.82
1978	0.24	1.91
1979	0.21	1.96
1980	0.22	1.83
1981	0.18	1.70
1982	0.23	1.47
1983	0.19	1.79
1984	0.21	1.50
1985	0.18	1.34
1986	0.18	1.36
1987	0.15	1.62
1988	0.21	1.75
1989	0.27	1.78
1990	0.26	1.75
1991	0.16	1.68
1992	0.22	1.53
1993	0.17	1.60
1994	0.20	1.28
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	0.53
2006	0.12	0.40
2007	0.14	0.63
2008	0.13	0.75
2009	0.11	0.65
2010	0.09	0.82
2011	0.11	0.73
2012	0.11	0.76
2013	0.13	0.64

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) inside Australia only

Source: ABS (2014m), ATSB (2014a).

Table T 8.14b Aviation accident rate and casualty rate, by accident severity—
casualty rate

Calendar year	Fatalities	Non-fatal injuries
	<i>aviation casualty rate per 100,000 population</i>	
1971	0.27	0.18
1972	0.39	0.15
1973	0.19	0.17
1974	0.28	0.17
1975	0.35	0.19
1976	0.41	0.35
1977	0.39	0.36
1978	0.45	0.34
1979	0.31	0.34
1980	0.44	0.28
1981	0.39	0.33
1982	0.40	0.28
1983	0.35	0.29
1984	0.31	0.24
1985	0.34	0.23
1986	0.34	0.22
1987	0.24	0.36
1988	0.41	0.27
1989	0.49	0.45
1990	0.47	0.36
1991	0.30	0.23
1992	0.36	0.22
1993	0.32	0.33
1994	0.35	0.17
1995	0.28	0.27
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	0.12	0.09
2010	0.11	0.14
2011	0.17	0.17
2012	0.17	0.17
2013	0.20	0.08

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) inside Australia only

Source: ABS (2014m), ATSB (2014a).

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

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other ^k	Total
1971	79	27	39	24	47	6	15	2	0	239
1972	45	46	39	20	25	9	15	1	0	200
1973	76	54	37	22	27	10	13	3	0	242
1974	58	52	46	33	40	10	16	1	2	258
1975	68	48	45	24	27	5	9	2	0	228
1976	95	70	47	42	38	8	12	0	0	312
1977	78	67	45	33	41	7	16	3	0	290
1978	78	57	69	29	51	2	20	2	0	308
1979	102	52	62	31	42	4	20	2	0	315
1980	88	43	68	27	48	5	19	2	1	301
1981	68	33	83	35	44	4	14	0	0	281
1982	74	37	73	21	37	3	10	2	1	258
1983	97	36	92	22	33	10	11	4	0	305
1984	83	38	68	20	36	8	13	0	0	266
1985	82	27	64	14	35	8	10	1	0	241
1986	76	47	52	20	29	5	17	1	0	247
1987	91	43	81	23	22	7	22	0	0	289
1988	89	36	103	27	36	6	23	4	0	324
1989	98	45	117	22	28	6	25	5	0	346
1990	122	39	90	16	47	6	23	0	0	343
1991	88	43	90	16	50	6	23	2	1	319
1992	93	47	66	24	47	9	18	1	0	305
1993	92	40	88	23	40	10	19	1	0	313
1994	79	35	71	20	32	3	23	0	0	263
1995	67	31	96	16	41	4	11	2	0	268
1996	66	25	77	15	42	9	9	0	0	243
1997	71	30	74	18	32	5	24	2	0	256
1998	64	25	68	13	33	8	14	3	0	228
1999	47	32	50	18	26	4	11	3	1	192
2000	59	31	63	10	34	2	17	1	0	217
2001	41	24	57	15	35	4	18	2	0	196
2002	51	21	42	9	25	6	10	0	0	164
2003	45	22	37	8	21	5	12	4	0	154
2004	38	26	55	11	17	5	11	0	0	163
2005	45	17	37	10	17	0	7	0	0	133
2006	30	14	27	3	15	5	10	1	0	105
2007	42	28	40	10	22	5	14	0	1	162
2008	55	27	47	12	32	4	13	0	0	190
2009	49	26	45	6	25	6	10	1	1	169
2010	43	32	58	18	31	4	16	0	0	202
2011	51	26	53	11	29	7	15	0	0	192
2012	53	43	56	13	22	4	11	1	0	203
2013	44	36	50	13	21	3	9	1	0	177

^k Other includes accidents that occurred on Norfolk Island and in the Australian Antarctic Territory.

Source: ATSB (2014a).

Table T 8.15b Number of aviation accidents and casualties, by state/territory—fatalities

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other ^k	Total
1971	11	5	0	2	17	0	0	0	0	35
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	7	7	5	1	7	0	0	0	0	27
2010	7	2	7	1	4	0	3	0	0	24
2011	14	4	12	3	3	1	1	0	0	38
2012	13	8	15	1	2	0	0	0	0	39
2013	13	9	12	2	3	1	6	0	0	46

^k Other includes accidents that occurred on Norfolk Island and in the Australian Antarctic Territory.

Source: ATSB (2014a).

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
			<i>megalitres</i>			
1977–78	14 411.3					
1978–79	14 843.9					
1979–80	14 735.7					
1980–81	14 801.9					
1981–82	15 224.8		7 841.4			
1982–83	14 983.4		7 456.5			
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	18 725.2	2 021.8	20 053.9	7.2	78.7	7 067.6
2011–12	18 761.6	1 908.3	21 642.6	0.5	84.1	7 336.3
2012–13	18 658.7	1 824.8	22 618.1	0.0	81.0	7 773.1

Note: Data are not readily available for missing years.

Source: BREE (2014b).

Table T 9.2a Australian petroleum production, imports and exports—production

Financial year	Automotive gasoline	LPG ³³	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
<i>megalitres</i>						
1999–00	18 652.4	1 674.4	12 736.8	59.6	158.1	5 538.7
2000–01	17 886.9	1 794.7	13 212.1	98.1	137.5	5 836.3
2001–02	17 999.6	1 718.2	13 064.1	105.4	146.8	5 389.7
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	16 642.8	1 467.4	12 858.7	0.0	91.4	5 447.7
2011–12	15 573.0	1 212.9	12 658.3	0.0	89.8	5 453.3
2012–13	15 602.8	1 215.0	12 875.6	0.0	92.2	5 534.5

³³ See end notes.

Source: BREE (2014b).

Table T 9.2b Australian petroleum production, imports and exports—imports³⁴

Financial year	Automotive gasoline	LPG ³³	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
<i>megalitres</i>						
1999–00	1 065.1	518.9	1 399.7		0.0	170.6
2000–01	1 188.7	633.4	1 129.0		0.0	387.4
2001–02	1 436.2	588.0	1 280.3		0.0	224.7
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

^{33, 34} See end notes.

Note: Data are not separately available for missing years.

Source: BREE (2014b).

Table T 9.2c Australian petroleum production, imports and exports—exports

Financial year	Automotive gasoline	LPG ³³	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
<i>megalitres</i>						
1999–00	1 372.6	2 858.9	1 018.1	51.3	78.9	578.3
2000–01	1 286.0	2 784.6	1 150.1	119.5	28.5	755.5
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	0.0	19.8	11.8
2011–12	175.2	2 114.7	129.6	0.0	17.0	2.4
2012–13	99.7	2 385.6	91.1	0.0	22.1	13.0

³³ See end notes.

Source: BREE (2014b).

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

Average over financial year	NSW/ACT	VIC	QLD	SA	WA	TAS	NT	National
<i>cents per litre</i>								
2002–03	91.8	90.3	83.7	91.6	94.0	95.1	99.8	90.3
2003–04	93.6	91.7	85.2	93.8	94.5	98.3	101.3	91.9
2004–05	105.2	102.4	95.9	104.5	103.8	109.1	112.5	102.8
2005–06	124.6	123.3	116.9	125.1	124.3	129.0	131.2	123.0
2006–07	124.9	124.1	118.0	124.2	124.5	127.0	133.9	123.4
2007–08	137.9	137.0	130.6	137.1	137.5	141.4	147.8	136.3
2008–09	129.7	130.2	123.3	129.8	128.7	134.3	140.2	128.8
2009–10	124.8	125.3	125.9	124.2	124.7	129.8	133.6	125.3
2010–11	139.5	138.9	140.6	138.7	140.7	145.2	148.5	139.8
2011–12	144.0	141.9	145.7	143.4	144.9	150.3	156.2	144.1
2012–13	143.5	141.3	145.4	141.7	144.0	152.1	161.6	143.6
2013–14	152.6	149.7	154.4	150.9	152.8	162.0	171.8	152.5

Source: AIP (2014).

Table T 9.4 Transport direct greenhouse gas (carbon dioxide equivalent) emissions by transport mode

Financial year	Road Vehicles	Rail (excl electric)	Domestic Maritime	Domestic Aviation	Total (including off-road vehicles)
<i>gigagrams of CO₂ equivalent</i>					
1974–75	33 059	1 910	3 441	2 791	41 231
1975–76	34 587	1 911	3 286	2 615	42 429
1976–77	36 614	1 950	3 587	2 484	44 667
1977–78	38 158	1 977	3 940	2 742	46 851
1978–79	39 950	2 023	3 573	2 648	48 229
1979–80	40 683	2 023	3 748	2 765	49 253
1980–81	41 555	2 003	3 788	2 748	50 129
1981–82	43 535	1 959	3 259	3 124	51 913
1982–83	43 062	1 799	2 973	3 010	50 879
1983–84	45 110	1 956	3 033	2 936	53 071
1984–85	46 873	2 040	2 888	3 017	54 854
1985–86	48 022	1 985	2 964	3 244	56 255
1986–87	48 917	2 016	2 939	3 331	57 248
1987–88	51 439	1 985	2 904	3 600	59 978
1988–89	53 457	1 820	2 671	3 536	61 540
1989–90	54 745	1 753	2 383	2 833	61 774
1990–91	53 718	1 745	2 080	3 517	61 120
1991–92	54 419	1 696	2 140	3 817	62 134
1992–93	56 137	1 699	1 950	4 012	63 861
1993–94	57 674	1 800	1 815	4 245	65 601
1994–95	59 934	1 755	2 319	5 003	69 079
1995–96	61 362	1 707	2 442	5 491	71 073
1996–97	62 359	1 739	2 434	5 863	72 467
1997–98	63 402	1 779	2 134	5 318	72 705
1998–99	64 556	1 829	1 983	5 120	73 564
1999–00	65 785	1 884	2 085	5 352	75 185
2000–01	65 317	1 854	2 063	5 963	75 275
2001–02	67 165	1 939	2 152	5 347	76 683
2002–03	68 972	1 991	2 234	5 103	78 382
2003–04	71 869	2 127	2 369	5 337	81 789
2004–05	72 329	2 304	2 518	5 810	83 049
2005–06	71 990	2 318	2 443	6 111	82 946
2006–07	73 392	2 498	2 623	6 643	85 242
2007–08	74 494	2 578	2 661	7 153	86 974
2008–09	74 264	2 582	2 358	7 301	86 595
2009–10	75 270	2 682	2 770	7 406	88 218
2010–11	76 483	2 756	2 617	7 949	89 898
2011–12	77 708	2 902	2 411	8 084	91 199
2012–13	78 507	3 038	2 277	8 611	92 526

Source: BITRE (2009) and BITRE estimates.

Table T 9.5 Road transport direct greenhouse gas (carbon dioxide equivalent) emissions, by vehicle type

Financial year	Cars	Light commercial vehicles	Articulated trucks	Rigid and other trucks	Buses	Motor cycles	Total road
<i>gigagrams of CO₂ equivalent</i>							
1989–90	34 880	7 619	5 629	5 099	1 267	251	54 745
1990–91	34 797	7 365	5 544	4 560	1 225	226	53 718
1991–92	35 435	7 590	5 592	4 393	1 183	226	54 419
1992–93	36 580	7 817	6 008	4 332	1 174	226	56 137
1993–94	37 526	8 049	6 187	4 483	1 206	223	57 674
1994–95	38 585	8 518	6 658	4 723	1 229	221	59 934
1995–96	39 075	8 816	7 003	4 999	1 255	214	61 362
1996–97	39 309	8 898	7 312	5 381	1 246	213	62 359
1997–98	39 536	9 310	7 626	5 461	1 264	205	63 402
1998–99	40 233	9 540	7 891	5 428	1 266	197	64 556
1999–00	40 900	9 731	8 148	5 517	1 290	200	65 785
2000–01	40 483	9 853	8 079	5 393	1 303	206	65 317
2001–02	41 435	10 271	8 358	5 587	1 297	218	67 165
2002–03	42 379	10 561	8 668	5 810	1 340	214	68 972
2003–04	44 452	10 909	8 993	5 937	1 353	226	71 869
2004–05	44 313	10 968	9 285	6 157	1 362	243	72 329
2005–06	43 159	11 262	9 513	6 407	1 385	265	71 990
2006–07	43 506	11 659	9 931	6 611	1 391	294	73 392
2007–08	43 585	12 172	10 205	6 792	1 418	322	74 494
2008–09	43 132	12 526	10 102	6 699	1 461	344	74 264
2009–10	43 218	13 023	10 273	6 882	1 504	370	75 270
2010–11	43 430	13 369	10 663	7 070	1 567	383	76 483
2011–12	43 641	13 717	11 071	7 258	1 622	398	77 708
2012–13	43 606	14 102	11 341	7 410	1 634	413	78 507

Source: BITRE (2009) and BITRE estimates.

Table T 9.6 Transport direct emissions, by transport mode—carbon dioxide

Financial year	Road Vehicles	Rail (excluding electric)	Domestic Maritime (including small craft)	Domestic Aviation	Total (including off-road vehicles)
<i>gigagrams of CO₂</i>					
1989–90	53 597	1 714	2 315	2 803	60 488
1990–91	52 503	1 706	2 013	3 481	59 763
1991–92	53 113	1 659	2 070	3 779	60 681
1992–93	54 721	1 661	1 878	3 972	62 295
1993–94	56 152	1 760	1 742	4 203	63 923
1994–95	58 289	1 716	2 237	4 954	67 264
1995–96	59 621	1 669	2 357	5 438	69 154
1996–97	60 548	1 700	2 346	5 806	70 471
1997–98	61 520	1 740	2 046	5 266	70 644
1998–99	62 594	1 789	1 893	5 070	71 421
1999–00	63 751	1 843	1 991	5 300	72 962
2000–01	63 260	1 813	1 968	5 905	73 024
2001–02	65 030	1 897	2 053	5 295	74 353
2002–03	66 782	1 948	2 131	5 053	75 995
2003–04	69 594	2 081	2 261	5 286	79 306
2004–05	70 077	2 254	2 406	5 755	80 579
2005–06	69 826	2 267	2 337	6 050	80 563
2006–07	71 223	2 443	2 514	6 577	82 842
2007–08	72 333	2 522	2 551	7 085	84 579
2008–09	72 162	2 526	2 250	7 231	84 256
2009–10	73 177	2 623	2 656	7 334	85 880
2010–11	74 413	2 695	2 501	7 875	87 577
2011–12	75 664	2 839	2 296	8 008	88 900
2012–13	76 496	2 971	2 160	8 534	90 253

Source: BITRE (2009) and BITRE estimates.

Table T 9.7 Transport direct emissions, by transport mode—methane

Financial year	Road Vehicles	Rail (excluding electric)	Domestic Maritime (including small craft)	Domestic Aviation	Total (including off-road vehicles)
<i>gigagrams of methane</i>					
1989–90	23.27	1.24	2.33	0.29	27.16
1990–91	22.91	1.23	2.37	0.25	26.79
1991–92	23.28	1.20	2.50	0.24	27.26
1992–93	23.88	1.20	2.65	0.26	28.02
1993–94	24.23	1.27	2.79	0.26	28.57
1994–95	24.77	1.24	2.97	0.27	29.29
1995–96	24.79	1.21	3.12	0.27	29.42
1996–97	24.64	1.23	3.24	0.28	29.42
1997–98	24.45	1.26	3.34	0.28	29.36
1998–99	24.12	1.29	3.50	0.28	29.22
1999–00	23.67	1.33	3.67	0.28	28.98
2000–01	22.65	1.31	3.73	0.28	28.01
2001–02	22.30	1.37	3.87	0.26	27.85
2002–03	21.84	1.41	4.04	0.25	27.58
2003–04	21.72	1.50	4.26	0.25	27.77
2004–05	20.58	1.63	4.36	0.26	26.87
2005–06	18.90	1.64	4.11	0.26	24.95
2006–07	17.99	1.77	4.16	0.27	24.23
2007–08	16.91	1.82	4.21	0.28	23.26
2008–09	15.63	1.83	4.24	0.29	22.02
2009–10	14.65	1.90	4.37	0.29	21.25
2010–11	13.52	1.95	4.46	0.30	20.27
2011–12	12.45	2.05	4.56	0.30	19.41
2012–13	11.48	2.15	4.71	0.31	18.68

Source: BITRE (2009) and BITRE estimates.

Table T 9.8 Transport direct emissions, by transport mode—nitrous oxide

Financial year	Road Vehicles	Rail (excluding electric)	Domestic Maritime (including small craft)	Domestic Aviation	Total (including off-road vehicles)
<i>gigagrams of nitrous oxide</i>					
1989–90	2.13	0.04	0.06	0.08	2.31
1990–91	2.37	0.04	0.05	0.10	2.56
1991–92	2.64	0.04	0.06	0.11	2.84
1992–93	2.95	0.04	0.05	0.11	3.15
1993–94	3.27	0.04	0.05	0.12	3.48
1994–95	3.63	0.04	0.06	0.14	3.87
1995–96	3.94	0.04	0.06	0.15	4.20
1996–97	4.17	0.04	0.06	0.17	4.44
1997–98	4.41	0.04	0.06	0.15	4.66
1998–99	4.70	0.04	0.05	0.14	4.93
1999–00	4.96	0.04	0.05	0.15	5.21
2000–01	5.10	0.04	0.05	0.17	5.37
2001–02	5.38	0.04	0.06	0.15	5.63
2002–03	5.58	0.05	0.06	0.14	5.83
2003–04	5.87	0.05	0.06	0.15	6.13
2004–05	5.87	0.05	0.07	0.16	6.15
2005–06	5.70	0.05	0.06	0.18	6.00
2006–07	5.78	0.06	0.07	0.19	6.10
2007–08	5.82	0.06	0.07	0.20	6.15
2008–09	5.72	0.06	0.06	0.21	6.05
2009–10	5.76	0.06	0.07	0.21	6.11
2010–11	5.76	0.06	0.07	0.22	6.11
2011–12	5.75	0.07	0.06	0.22	6.10
2012–13	5.71	0.07	0.06	0.23	6.07

Source: BITRE (2009) and 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)
<i>gigagrams of CO₂ equivalent</i>					
1974–75	37 353	3 048	3 916	3 201	47 518
1975–76	39 085	3 061	3 739	2 999	48 884
1976–77	41 384	3 114	4 084	2 848	51 430
1977–78	43 134	3 147	4 487	3 144	53 912
1978–79	45 176	3 152	4 069	3 035	55 432
1979–80	46 021	3 195	4 268	3 170	56 655
1980–81	47 017	3 232	4 312	3 151	57 712
1981–82	49 265	3 201	3 707	3 583	59 757
1982–83	48 738	3 034	3 377	3 453	58 601
1983–84	51 073	3 241	3 419	3 367	61 100
1984–85	53 079	3 435	3 255	3 460	63 229
1985–86	54 384	3 421	3 341	3 721	64 868
1986–87	55 404	3 539	3 311	3 821	66 075
1987–88	58 267	3 552	3 273	4 130	69 220
1988–89	60 552	3 604	3 004	4 056	71 216
1989–90	62 016	3 598	2 678	3 247	71 539
1990–91	60 843	3 583	2 330	4 034	70 791
1991–92	61 633	3 565	2 396	4 379	71 973
1992–93	63 578	3 518	2 177	4 603	73 877
1993–94	65 322	3 619	2 026	4 871	75 838
1994–95	67 895	3 625	2 598	5 742	79 861
1995–96	69 522	3 586	2 740	6 302	82 150
1996–97	70 663	3 704	2 727	6 730	83 823
1997–98	71 858	3 738	2 384	6 103	84 083
1998–99	73 169	3 841	2 212	5 876	85 099
1999–00	74 572	4 009	2 325	6 143	87 049
2000–01	74 055	4 033	2 296	6 844	87 228
2001–02	76 167	4 127	2 397	6 137	88 828
2002–03	78 222	4 173	2 490	5 856	90 742
2003–04	81 463	4 330	2 637	6 126	94 556
2004–05	81 994	4 580	2 788	6 670	96 031
2005–06	81 678	4 582	2 714	7 015	95 989
2006–07	83 360	4 883	2 916	7 626	98 785
2007–08	84 703	5 038	2 954	8 211	100 906
2008–09	84 523	5 127	2 810	8 382	100 842
2009–10	85 734	5 198	3 128	8 503	102 561
2010–11	87 168	5 286	2 958	9 127	104 539
2011–12	88 574	5 436	2 679	9 282	105 971
2012–13	89 495	5 581	2 528	9 888	107 492

Source: BITRE (2009) and 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 (including off-road vehicles)
<i>petajoules (end-use, higher heating value)</i>						
1974–75	483.7	26.9	2.5	47.0	40.2	600.7
1975–76	506.0	26.9	2.5	45.0	37.7	618.5
1976–77	535.6	27.5	2.5	49.2	35.8	651.0
1977–78	558.2	27.9	2.5	54.1	39.5	682.6
1978–79	584.2	28.5	2.4	49.1	38.2	703.0
1979–80	594.7	28.5	2.6	51.5	39.8	717.6
1980–81	607.3	28.3	2.8	51.9	39.6	730.4
1981–82	636.0	27.7	2.8	44.5	45.0	756.6
1982–83	628.9	25.4	3.0	40.5	43.4	741.7
1983–84	658.5	27.6	3.1	40.5	42.3	772.6
1984–85	684.0	28.8	3.4	38.7	43.5	798.9
1985–86	700.8	28.0	3.8	39.6	46.7	819.6
1986–87	713.7	28.5	4.0	39.3	48.0	834.2
1987–88	750.3	28.0	4.3	38.8	51.9	874.1
1988–89	779.7	25.7	5.1	35.6	50.9	897.8
1989–90	798.3	24.8	5.5	31.7	40.8	902.0
1990–91	782.8	24.7	5.4	27.5	50.7	891.8
1991–92	792.4	24.0	5.5	28.2	55.0	906.0
1992–93	816.8	24.0	5.4	25.6	57.8	930.5
1993–94	838.7	25.4	5.4	23.8	61.1	955.5
1994–95	871.4	24.8	5.6	30.7	72.0	1 005.5
1995–96	891.5	24.1	5.5	32.5	79.0	1 033.7
1996–97	905.8	24.6	5.8	32.3	84.4	1 054.0
1997–98	920.3	25.1	5.8	28.2	76.5	1 057.0
1998–99	936.3	25.9	5.9	26.1	73.7	1 069.0
1999–00	953.7	26.6	6.4	27.4	77.0	1 092.4
2000–01	946.6	26.2	6.6	27.0	85.8	1 093.4
2001–02	973.4	27.4	6.5	28.3	77.0	1 113.7
2002–03	998.9	28.2	6.5	29.4	73.4	1 137.6
2003–04	1 039.4	30.1	6.6	31.0	76.8	1 185.2
2004–05	1 045.7	32.6	6.6	32.6	83.6	1 202.4
2005–06	1 043.0	32.8	6.7	31.9	87.9	1 203.5
2006–07	1 065.2	35.3	6.9	34.3	95.6	1 238.6
2007–08	1 083.1	36.4	7.1	34.7	102.9	1 265.6
2008–09	1 081.8	36.5	7.5	33.0	105.1	1 265.1
2009–10	1 097.2	37.9	7.4	37.0	106.5	1 287.3
2010–11	1 115.6	38.9	7.4	35.2	114.4	1 312.9
2011–12	1 133.3	41.0	7.5	31.5	116.3	1 331.1
2012–13	1 144.7	42.9	7.6	29.8	124.0	1 350.3

Source: BITRE (2009) and 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
<i>petajoules (end-use, higher heating value)</i>							
1974–75	326.6	62.3	35.9	48.4	8.0	2.5	483.7
1975–76	341.1	63.8	39.2	50.9	8.0	3.0	506.0
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	510.9	111.6	80.8	73.2	18.2	3.6	798.3
1990–91	509.0	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	792.4
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	18.1	3.1	891.5
1996–97	571.7	130.8	105.0	77.3	17.9	3.1	905.8
1997–98	574.7	136.5	109.5	78.4	18.2	3.0	920.3
1998–99	584.2	139.7	113.4	77.9	18.3	2.8	936.3
1999–00	593.5	142.3	117.1	79.2	18.7	2.9	953.7
2000–01	587.0	144.0	116.2	77.5	19.0	3.0	946.6
2001–02	600.6	149.9	120.3	80.4	19.1	3.2	973.4
2002–03	614.3	154.2	124.5	83.3	19.5	3.1	998.9
2003–04	643.3	159.0	129.2	85.0	19.7	3.3	1 039.4
2004–05	641.0	159.7	133.5	88.2	19.8	3.5	1 045.7
2005–06	625.9	164.1	136.9	91.9	20.3	3.8	1 043.0
2006–07	631.8	170.1	143.2	95.1	20.8	4.3	1 065.2
2007–08	634.2	177.6	147.3	97.9	21.3	4.7	1 083.1
2008–09	628.9	182.8	146.1	96.7	22.2	5.0	1 081.8
2009–10	630.7	189.9	148.7	99.5	23.0	5.4	1 097.2
2010–11	635.0	195.0	154.3	102.0	23.8	5.6	1 115.6
2011–12	638.0	200.0	160.2	104.6	24.6	5.8	1 133.3
2012–13	637.5	205.3	164.2	106.8	24.9	6.0	1 144.7

Source: BITRE (2009) and 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
<i>petajoules (higher heating value)</i>						
1974–75	428.01	93.94	2.59	0.00	0.00	524.53
1975–76	444.12	100.13	2.97	0.00	0.00	547.21
1976–77	464.92	113.08	3.41	0.00	0.00	581.41
1977–78	481.45	121.63	3.86	0.00	0.00	606.94
1978–79	493.25	134.66	4.61	0.00	0.00	632.53
1979–80	489.44	148.16	5.85	0.00	0.00	643.45
1980–81	492.65	153.77	7.17	0.00	0.00	653.59
1981–82	509.25	161.39	8.15	0.00	0.00	678.79
1982–83	497.30	161.59	9.14	0.00	0.00	668.02
1983–84	508.03	178.83	10.47	0.00	0.00	697.33
1984–85	519.95	192.75	11.83	0.00	0.00	724.53
1985–86	528.42	196.83	13.81	0.00	0.00	739.06
1986–87	532.59	206.03	15.78	0.12	0.00	754.53
1987–88	553.38	217.32	18.14	0.03	0.00	788.86
1988–89	573.14	221.54	20.71	0.06	0.00	815.46
1989–90	582.25	227.09	23.00	0.17	0.00	832.52
1990–91	569.06	218.47	27.94	0.30	0.00	815.77
1991–92	571.88	220.97	32.46	0.43	0.01	825.75
1992–93	582.60	228.78	38.12	0.53	0.02	850.05
1993–94	589.91	238.89	44.78	0.62	0.05	874.25
1994–95	598.29	254.54	55.09	0.72	0.12	908.76
1995–96	602.62	266.56	59.36	0.82	0.24	929.60
1996–97	602.89	275.64	65.04	0.88	0.37	944.81
1997–98	602.54	287.80	67.31	0.95	0.50	959.10
1998–99	611.21	296.48	67.04	1.04	0.70	976.48
1999–00	619.15	305.72	67.65	1.07	1.04	994.64
2000–01	613.72	305.56	65.06	1.12	1.59	987.05
2001–02	624.93	321.34	67.10	1.32	2.09	1 016.79
2002–03	636.42	337.61	66.95	1.41	1.81	1 044.21
2003–04	665.93	352.09	66.75	1.45	0.70	1 086.91
2004–05	665.53	366.37	61.62	1.51	0.67	1 095.70
2005–06	637.69	384.13	69.26	1.63	1.51	1 094.24
2006–07	645.67	407.14	62.72	1.78	4.14	1 121.44
2007–08	643.83	427.98	60.53	1.91	6.29	1 140.54
2008–09	630.84	438.41	58.90	2.09	8.16	1 138.39
2009–10	626.84	465.31	54.79	2.25	9.55	1 158.75
2010–11	626.51	486.89	53.19	2.50	10.27	1 179.36
2011–12	626.59	503.58	51.28	2.79	10.09	1 194.33
2012–13	623.55	523.53	49.08	3.07	9.83	1 209.06

Source: BITRE (2009) and BITRE estimates.

Table T 9.13 Other transport energy use

Financial year	Aviation gasoline	Aviation turbine fuel	Fuel oil	Coal	Electricity	Total
<i>petajoules (end-use)</i>						
1974–75	3.31	36.90	32.70	0.33	2.47	75.71
1975–76	3.37	34.31	30.31	0.32	2.51	70.83
1976–77	3.63	32.18	30.51	0.32	2.50	69.13
1977–78	3.77	35.75	32.84	0.31	2.51	75.17
1978–79	4.16	34.01	29.11	0.22	2.44	69.95
1979–80	3.77	36.07	31.08	0.16	2.59	73.67
1980–81	3.77	35.83	33.77	0.12	2.84	76.33
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	3.50	54.27	12.20	4.13	5.43	79.53
1993–94	3.40	57.73	9.76	3.93	5.41	80.23
1994–95	3.46	68.57	14.12	4.03	5.60	95.78
1995–96	3.36	75.68	14.50	3.99	5.53	103.07
1996–97	3.39	81.00	13.58	4.30	5.83	108.10
1997–98	3.44	73.11	10.28	4.24	5.77	96.84
1998–99	3.50	70.21	7.66	4.16	5.90	91.43
1999–00	3.47	73.57	8.71	4.44	6.36	96.56
2000–01	3.35	82.47	7.90	4.91	6.57	105.20
2001–02	3.20	73.76	7.30	5.01	6.50	95.77
2002–03	3.09	70.35	7.20	5.01	6.55	92.21
2003–04	2.98	73.84	7.80	5.81	6.61	97.04
2004–05	3.01	80.64	7.10	8.00	6.62	105.36
2005–06	2.86	85.05	6.50	6.90	6.69	108.01
2006–07	2.97	92.60	6.00	7.40	6.93	115.90
2007–08	2.91	100.02	5.70	8.00	7.15	123.77
2008–09	3.18	101.88	5.10	7.80	7.47	125.43
2009–10	2.64	103.89	5.80	7.50	7.35	127.19
2010–11	2.60	111.78	5.10	5.30	7.42	132.21
2011–12	2.78	113.54	5.00	6.51	7.51	135.34
2012–13	2.68	121.27	2.00	6.35	7.59	139.89

Source: BITRE (2009) and BITRE estimates.

PART E: Energy

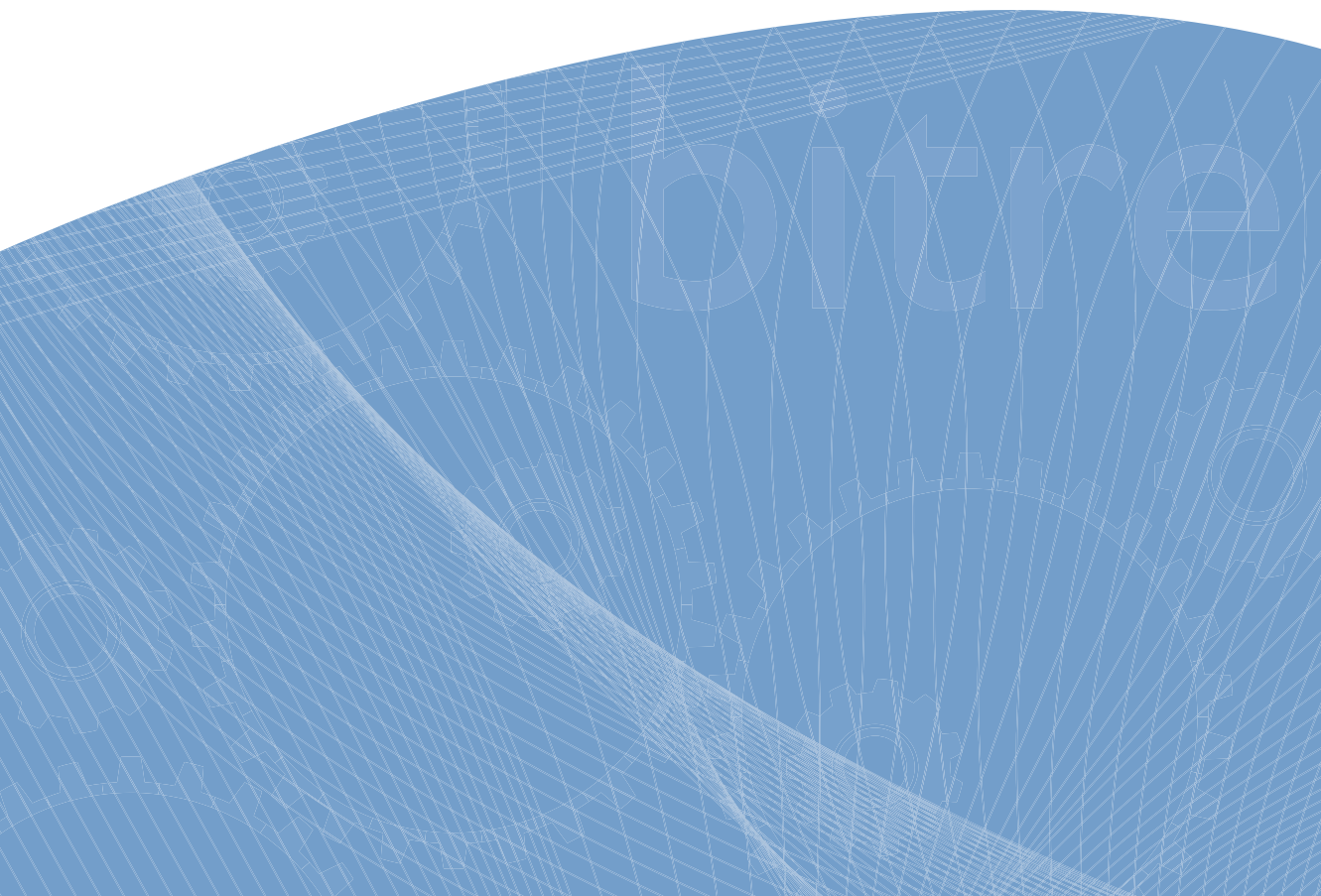
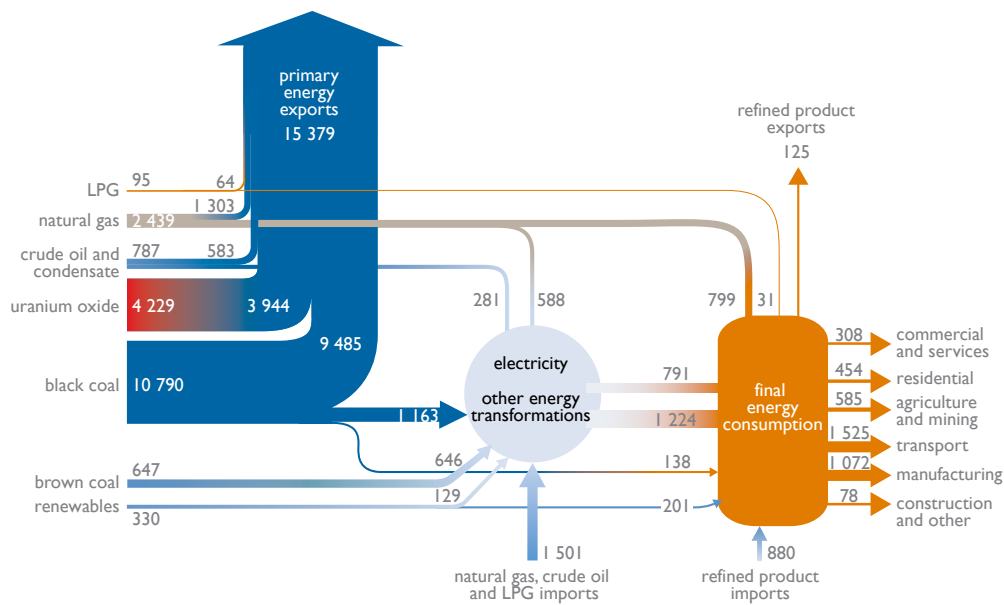


Figure E I Australian energy flows in petajoules, 2012–13



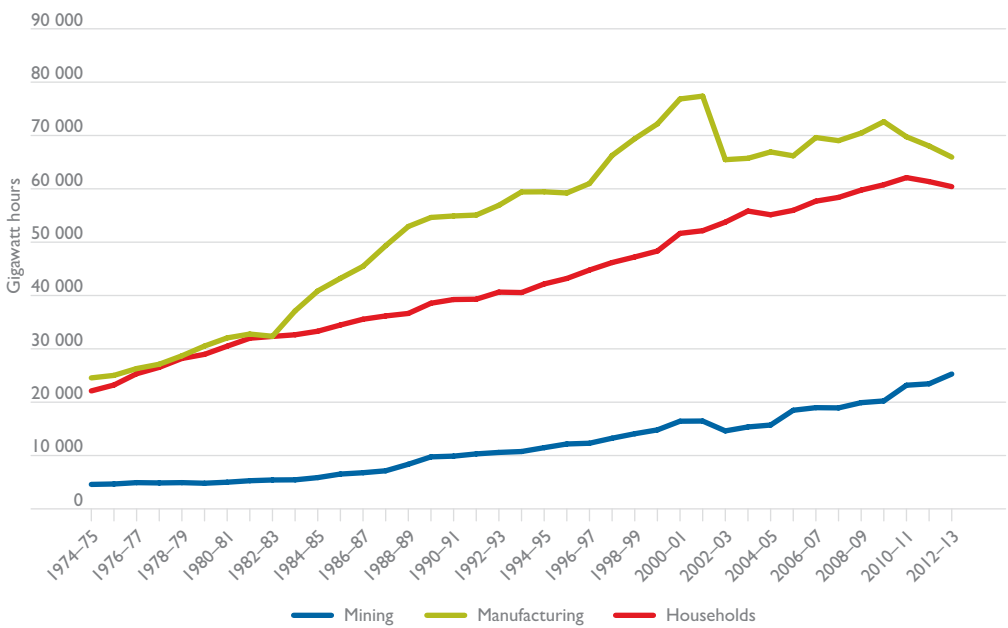
Source: reproduced with permission from BREE (2014).

PART E

Energy

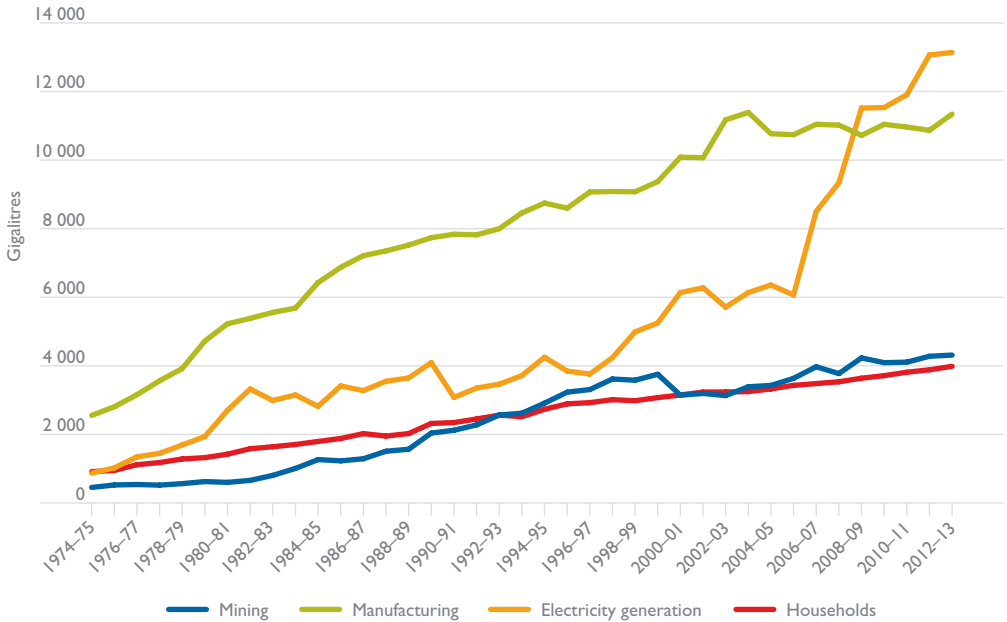
Statistics are provided for the production of energy, the conversion of primary forms of energy into electricity and the distribution of energy through electricity and gas networks.

Figure E 2 Australian electricity consumption, by broad industry



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 2012–13 due to the mining boom.

Figure E 3 Australian gas consumption, by broad industry



The consumption of gas by the electricity generation industry increased sharply from 2006–07 to 2012–13. The growth reflected a sharp increase in gas consumption by the electricity generation industry in Western Australia and New South Wales (in the latter case, usage increased sharply in 2009–10 to 2012–13).

CHAPTER I

Energy infrastructure

Table E I.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

Financial year	Electricity generation, transmission and distribution	Pipelines	Total major infrastructure engineering construction	Energy percentage of total
		\$ million		per cent
1986–87	194.6	221.4	2 118.6	19.63
1987–88	248.4	155.7	2 341.3	17.26
1988–89	201.5	174.8	2 553.8	14.74
1989–90	136.2	153.8	2 776.9	10.45
1990–91	168.7	121.7	2 615.3	11.10
1991–92	172.3	171.1	2 475.3	13.87
1992–93	136.2	322.9	2 613.8	17.56
1993–94	260.9	240.4	3 248.6	15.43
1994–95	275.4	288.1	3 232.6	17.43
1995–96	733.1	448.6	4 192.3	28.19
1996–97	675.7	390.7	4 391.1	24.29
1997–98	976.5	481.3	5 600.7	26.03
1998–99	1 191.9	638.7	6 468.0	28.30
1999–00	2 069.7	631.2	6 855.3	39.40
2000–01	2 158.2	350.2	6 168.8	40.66
2001–02	1 973.4	729.0	6 513.2	41.49
2002–03	1 869.0	1 287.5	8 814.3	35.81
2003–04	2 021.7	1 906.5	12 282.0	31.98
2004–05	2 765.1	898.3	14 054.0	26.07
2005–06	2 451.3	1 109.8	14 579.1	24.43
2006–07	3 405.9	1 022.7	17 652.5	25.09
2007–08	3 888.0	658.2	19 029.0	23.89
2008–09	5 202.9	884.9	20 326.5	29.95
2009–10	4 361.2	1 017.0	19 339.1	27.81
2010–11	4 281.3	1 761.7	23 867.1	25.32
2011–12	4 637.5	2 462.3	28 561.4	24.86
2012–13	6 989.2	4 331.2	32 458.6	34.88
2013–14	6 431.1	4 968.4	31 056.9	36.71

Source: ABS (2014e), adjusted by chain volume index.

Table E I.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

Financial year	Electricity generation, transmission and distribution	Pipelines	Total major infrastructure engineering construction	Energy percentage of total
		\$ million		per cent
1986–87	1 336.1	46.6	4 893.7	28.26
1987–88	864.2	33.0	3 609.7	24.85
1988–89	807.0	76.1	3 242.9	27.23
1989–90	665.3	157.1	3 478.5	23.64
1990–91	1 120.9	76.9	4 264.3	28.09
1991–92	1 249.1	14.9	4 342.0	29.11
1992–93	1 042.8	40.9	4 699.8	23.06
1993–94	965.9	24.4	5 502.9	18.00
1994–95	738.9	71.2	4 810.5	16.84
1995–96	496.8	385.1	4 693.8	18.79
1996–97	852.8	132.7	5 202.5	18.94
1997–98	648.5	52.6	5 749.1	12.20
1998–99	406.0	20.4	6 142.5	6.94
1999–00	433.8	34.1	6 567.6	7.12
2000–01	380.5	41.3	6 095.0	6.92
2001–02	528.8	24.5	5 368.2	10.31
2002–03	627.4	12.2	5 503.1	11.62
2003–04	384.2	12.2	5 454.0	7.27
2004–05	659.0	13.1	7 320.0	9.18
2005–06	903.3	5.4	7 862.8	11.56
2006–07	582.6	3.9	8 258.2	7.10
2007–08	469.6	10.3	11 763.2	4.08
2008–09	687.8	3.5	14 400.0	4.80
2009–10	965.1	9.3	14 944.4	6.52
2010–11	990.1	30.8	15 713.6	6.50
2011–12	1 186.9	105.0	16 256.7	7.95
2012–13	1 442.8	83.8	15 835.2	9.64
2013–14	1 285.7	72.9	14 423.6	9.42

Source: ABS (2014e), adjusted by chain volume index.

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

Financial year	Electricity generation, transmission and distribution	Pipelines	Total major infrastructure engineering construction	Energy percentage of total
		\$ million		per cent
1986–87	1 370.9	27.8	9 720.8	14.39
1987–88	1 276.5	113.4	8 963.6	15.51
1988–89	1 264.1	115.2	9 078.1	15.19
1989–90	1 802.7	102.6	10 388.8	18.34
1990–91	1 480.1	109.4	10 286.2	15.45
1991–92	1 354.0	75.9	8 789.6	16.27
1992–93	1 439.0	54.0	9 457.5	15.79
1993–94	1 341.9	180.6	9 062.9	16.80
1994–95	1 421.0	146.3	10 211.9	15.35
1995–96	1 019.5	151.7	10 443.5	11.21
1996–97	927.5	33.4	9 784.2	9.82
1997–98	982.0	56.4	9 754.7	10.65
1998–99	1 236.9	149.9	10 486.8	13.22
1999–00	1 655.2	44.7	11 618.2	14.63
2000–01	1 956.6	36.9	10 567.5	18.86
2001–02	2 098.1	46.4	10 509.6	20.41
2002–03	2 238.4	33.3	10 451.7	21.74
2003–04	2 567.0	29.2	10 208.2	25.43
2004–05	2 686.9	7.1	10 647.1	25.30
2005–06	3 658.0	138.8	12 997.7	29.21
2006–07	4 435.3	227.6	11 948.7	39.02
2007–08	4 892.3	33.3	11 578.7	42.54
2008–09	5 859.2	7.6	13 389.1	43.82
2009–10	6 242.2	6.5	15 133.2	41.29
2010–11	5 701.9	3.3	14 873.3	38.36
2011–12	5 934.7	1.2	15 393.5	38.56
2012–13	5 344.5	5.2	14 413.7	37.12
2013–14	4 174.3	0.2	11 794.0	35.40

Source: ABS (2014e), adjusted by chain volume index.

Table E 1.1d Flow of new infrastructure—total value of energy infrastructure engineering construction work done, adjusted by chain volume index

Financial year	Electricity generation, transmission and distribution	Pipelines	Total major infrastructure engineering construction	Energy percentage of total
	\$ million			per cent
1986–87	2 901.6	295.8	16 733.1	19.11
1987–88	2 389.0	302.1	14 914.5	18.04
1988–89	2 272.6	366.1	14 874.8	17.74
1989–90	2 604.2	413.5	16 644.1	18.13
1990–91	2 769.7	307.9	17 165.9	17.93
1991–92	2 775.4	261.8	15 606.9	19.46
1992–93	2 618.0	417.9	16 771.1	18.10
1993–94	2 568.7	445.5	17 814.4	16.92
1994–95	2 435.2	505.6	18 255.0	16.11
1995–96	2 249.4	985.4	19 329.6	16.74
1996–97	2 456.0	556.8	19 377.8	15.55
1997–98	2 607.1	590.3	21 104.5	15.15
1998–99	2 834.8	809.1	23 097.3	15.78
1999–00	4 158.8	710.0	25 041.1	19.44
2000–01	4 495.3	428.3	22 831.4	21.57
2001–02	4 600.4	799.8	22 391.0	24.12
2002–03	4 734.8	1 333.0	24 769.1	24.50
2003–04	4 973.0	1 947.9	27 944.3	24.77
2004–05	6 111.0	918.5	32 021.2	21.95
2005–06	7 012.6	1 253.9	35 439.6	23.33
2006–07	8 423.8	1 254.2	37 859.4	25.56
2007–08	9 250.0	701.8	42 370.8	23.49
2008–09	11 749.9	896.0	48 115.5	26.28
2009–10	11 568.5	1 032.7	49 416.6	25.50
2010–11	10 973.3	1 795.8	54 454.0	23.45
2011–12	11 759.1	2 568.5	60 211.5	23.80
2012–13	13 776.5	4 420.2	62 707.5	29.02
2013–14	11 891.2	5 041.6	57 274.5	29.56

Source: ABS (2014e), adjusted by chain volume index.

Table E 1.2a Length of energy transmission networks—electricity transmission networks—overhead lines

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Snowy Mountains Hydro Electric Authority
<i>circuit kilometres</i>									
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		

^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: Data are not readily available for missing years.

Source: esaa (2005) and esaa (2014).

Table E 1.2b Length of energy transmission networks—electricity transmission networks—underground cables

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Snowy Mountains Hydro Electric Authority
<i>circuit kilometres</i>									
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		

^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: Data are not readily available for missing years.

Source: esaa (2005) and esaa (2014).

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
<i>megawatts</i>									
1975–76	140		6 074	45	24	0	0		6 283
1976–77	290		6 089	50	24	0	0		6 453
1977–78	370		6 899	49	24	0	0		7 343
1978–79	370		7 359	52	24	0	0		7 805
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

^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 From 2008–09, SMHEA generation capacity is recorded by state.

Note: Data are not readily available for missing years.

Note: 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 (2014).

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
<i>megawatts</i>									
1975–76	319		3 342	0	0	0	0		3 661
1976–77	319		3 342	0	0	0	0		3 661
1977–78	319		3 342	0	0	0	0		3 661
1978–79	319		3 317	0	225	0	0		3 861
1979–80	319		3 317	0	465	0	0		4 101
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	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

^c From 1998–99, non-schedule small hydro plants are excluded from estimates.^e From 2008–09, SMHEA generation capacity is recorded by state.

Note: Data are not readily available for missing years.

Note: 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 (2014).

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
<i>megawatts</i>									
1975–76	132		1 789	38	132	0	0		2 091
1976–77	132		1 999	52	163	0	0		2 345
1977–78	132		2 511	48	163	0	0		2 854
1978–79	132		2 734	48	163	0	0		3 076
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

^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: Data are not readily available for missing years.

Note: 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 (2014).

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	Total
<i>megawatts</i>									
1975–76	0		1 077	15	156	0	0		1 248
1976–77	0		1 455	16	156	0	0		1 627
1977–78	0		1 455	13	156	0	0		1 624
1978–79	0		1 455	12	231	0	0		1 698
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

Note: Data are not readily available for missing years.

Note: 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 (2014).

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
<i>megawatts</i>									
1975–76	2		1 195	85	40	0	0		1 322
1976–77	2		1 195	111	40	0	0		1 348
1977–78	2		1 195	126	40	0	0		1 363
1978–79	2		1 395	113	40	0	0		1 550
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

^c From 1998–99, non-schedule small hydro plants are excluded from estimates.^g The Wholesale Electricity Market commenced in WVA in September 2006. From 2006–07, generation capacity includes all market generators in the SWIS with a capacity greater than 10 MW.

Note: Data are not readily available for missing years.

Note: 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 (2014).

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
<i>megawatts</i>									
1975–76	1 202		240	6	20	0	0		1 469
1976–77	1 202		240	4	0	0	0		1 447
1977–78	1 396		240	1	0	0	0		1 638
1978–79	1 540		240	2	0	0	0		1 782
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

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

Note: Data are not readily available for missing years.

Note: 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 (2014).

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
<i>megawatts</i>									
1975–76	0		94	40	10	0	0		144
1976–77	0		94	40	10	0	0		144
1977–78	0		118	40	10	0	0		168
1978–79	0		141	47	10	0	0		198
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	472
2007–08	0	0	0	76	309	131	0	0	516
2008–09	0	0	0	76	352	131	0	0	560
2009–10	0	0	0	77	352	131	0	0	561
2010–11	0	0	0	77	352	131	0	0	561
2011–12	0	0	0	99	420	131	0	0	649
2012–13	0	0	0	97	416	122	0	0	636

^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.

Note: 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 (2014).

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
<i>megawatts</i>									
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	^d 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 From 2008–09, SMHEA generation capacity is recorded by state.

Note: Data are not readily available for missing years.

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

Financial year	New South Wales and the Australian Capital Territory	Victoria	Queensland	South Australia	Tasmania	National Electricity Market weighted average	Western Australia
<i>minutes</i>							
1999–2000		156					
2000–01	175	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	
2005–06	285	165	629	199	292	279	
2006–07	461	197	233	184	256	268	325
2007–08	269	228	263	150	304	213	317
2008–09	303	255	365	161	266	254	
2009–10	248	170	366	217	457	225	
2010–11	318	175	1122	311	267	416	
2011–12	301	178	203	159	214	199	

Note: Data are not readily available for missing years.

Source: AER (2013).

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 and the Australian Capital Territory	Victoria	Queensland	South Australia	Tasmania	National Electricity Market weighted average	Western Australia
<i>average number of times a customer's supply is interrupted per year</i>							
1999–2000	1.7	2.1			2.3		
2000–01	2.5	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	
2005–06	2.8	1.9	3.1	1.9	2.9	2.2	
2006–07	2.8	2.1	2.1	1.8	2.6	2.0	3.3
2007–08	2.5	1.7	2.4	1.5	2.6	1.9	3.3
2008–09	2.7	2.5	2.9	1.5	2.1	2.3	
2009–10	2.4	1.7	2.4	1.9	2.5	1.9	
2010–11	2.6	1.6	2.4	2.1	2.0	1.9	
2011–12	2.3	1.6	1.8	1.4	1.9	1.6	

Note: Data are not readily available for missing years.

Source: AER (2013).

CHAPTER 2

Inputs to energy supply

Table E 2.1 Energy inputs—Australia's economic demonstrated mineral energy reserves

End of calendar year	Black coal ⁱ	Brown coal (lignite) ⁱ	Uranium ⁱ	Crude oil	Condensate	LPG	Natural gas
	<i>gigatonnes</i>	<i>gigatonnes</i>	<i>kilotonnes</i>	<i>gigalitres</i>	<i>gigalitres</i>	<i>gigalitres</i>	<i>billion cubic metres</i>
1982				260	83	123	641
1983				235	74	87	629
1984				240	81	86	689
1985				217	86	88	709
1986				242	116	99	902
1987				246	119	97	1 069
1988				255	122	130	1 033
1989				260	119	114	955
1990				270	118	114	927
1991				258	124	131	950
1992				244	133	135	1 006
1993				249	136	133	992
1994				297	156	154	1 292
1995				277	183	144	1 264
1996				240	193	174	1 360
1997				266	192	184	1 494
1998	51.1	41.1	607	243	273	243	1 989
1999	44.4	37.7	571	215	277	262	1 989
2000	42.6	37.7	654	194	300	292	2 203
2001	40.8	37.7	648	206	289	293	2 667
2002	39.7	37.6	689	176	277	274	2 528
2003	38.3	37.5	675	186	247	210	2 462
2004	40.4	37.5	701	157	301	214	2 587
2005	39.2	37.4	716	169	257	214	2 428
2006	39.6	37.3	714	160	236	203	2 421
2007	38.9	37.3	983	162	228	191	2 362
2008	39.2	37.2	1 163	188	340	174	3 145
2009	43.8	37.1	1 223	170	340	166	2 984
2010	49.2	44.2	1 158	154	335	153	2 918
2011	57.5	44.2	1 196	148	305	148	2 817
2012	61.1	44.2	1 174	148	305	148	2 803

Note: Data are not readily available for missing years.

ⁱ Estimates are for recoverable Economic Demonstrated Resources of coal after allowances for losses due to mining.

ⁱ Estimates are for recoverable Economic Demonstrated Resources of uranium after allowances for losses due to mining and processing.

Source: BREE (2014d), GA (2012), GA (2013), GA(2014).

Table E 2.2a Energy inputs—Australian electricity generation, input fuel—energy units

Financial year	Black coal	Brown coal (including briquettes)	Petroleum products	Natural gas	Electricity
<i>petajoules</i>					
1974–75	375.1	243.6	49.5	34.3	37.3
1975–76	373.4	263.6	51.4	40.3	38.9
1976–77	438.7	282.2	53.0	53.0	43.5
1977–78	471.4	276.2	58.7	57.0	45.1
1978–79	481.8	291.6	59.8	66.6	49.9
1979–80	544.8	300.6	51.2	76.3	52.6
1980–81	570.6	293.3	49.9	106.5	55.9
1981–82	578.4	338.7	54.0	130.9	57.2
1982–83	619.1	313.4	47.6	117.7	55.7
1983–84	659.1	302.3	46.5	124.1	58.7
1984–85	695.1	352.2	41.5	111.0	66.6
1985–86	708.9	332.1	36.1	134.4	67.0
1986–87	730.9	389.2	27.7	129.1	69.4
1987–88	753.3	407.6	22.2	139.8	67.9
1988–89	799.0	460.8	29.5	143.6	73.7
1989–90	836.0	437.6	40.0	161.2	74.5
1990–91	848.7	470.0	40.8	121.3	71.6
1991–92	872.4	481.4	28.8	132.0	75.9
1992–93	905.6	456.9	29.0	136.4	75.2
1993–94	917.4	462.5	29.1	146.3	75.6
1994–95	946.6	480.5	32.8	167.4	79.4
1995–96	1 001.4	503.8	34.2	151.5	80.9
1996–97	1 018.5	546.5	27.2	148.1	81.3
1997–98	1 061.4	627.3	25.1	166.9	91.3
1998–99	1 081.2	662.7	23.7	196.5	97.8
1999–00	1 100.2	665.4	22.2	206.8	99.8
2000–01	1 176.1	665.8	19.2	241.7	102.7
2001–02	1 213.7	670.0	19.2	247.2	104.2
2002–03	1 176.2	693.5	28.0	224.9	102.6
2003–04	1 245.1	711.0	34.5	241.7	114.1
2004–05	1 279.5	708.0	36.0	250.3	108.5
2005–06	1 304.0	724.0	38.6	239.0	109.7
2006–07	1 325.4	721.1	37.0	334.9	112.2
2007–08	1 297.4	723.9	52.3	367.6	109.3
2008–09	1 361.2	748.7	38.3	453.6	115.3
2009–10	1 223.2	741.7	33.9	454.2	113.9
2010–11	1 146.2	728.1	33.6	468.9	108.5
2011–12	1 123.3	738.3	36.7	514.6	107.1
2012–13	1 094.3	645.0	37.5	517.5	99.0

Source: BREE (2014a).

Table E 2.2b Australian electricity generation, input fuel—physical units

Financial year	Black coal	Brown coal (including briquettes)	Petroleum products	Natural gas	Electricity
	<i>million tonnes</i>	<i>million tonnes</i>	<i>megalitres</i>	<i>megalitres</i>	<i>gigawatt hours</i>
1974–75	15.0	24.6	1 447	870 874	10 361
1975–76	15.0	26.7	1 503	1 023 214	10 806
1976–77	17.8	28.4	1 550	1 345 666	12 083
1977–78	19.3	27.8	1 716	1 447 225	12 528
1978–79	19.7	29.2	1 749	1 690 968	13 861
1979–80	22.4	30.0	1 497	1 937 251	14 611
1980–81	23.5	29.3	1 459	2 704 026	15 528
1981–82	23.5	34.1	1 579	3 323 540	15 889
1982–83	25.3	31.7	1 392	2 988 393	15 472
1983–84	27.4	30.5	1 360	3 150 889	16 306
1984–85	28.8	35.7	1 213	2 818 281	18 500
1985–86	29.4	33.6	1 056	3 412 405	18 611
1986–87	30.7	39.4	810	3 277 838	19 278
1987–88	31.5	41.3	649	3 549 510	18 861
1988–89	33.6	46.8	863	3 645 992	20 472
1989–90	35.3	44.4	1 170	4 092 855	20 694
1990–91	36.0	47.8	1 193	3 079 797	19 889
1991–92	37.0	49.0	842	3 351 469	21 083
1992–93	38.4	46.5	848	3 463 185	20 889
1993–94	39.1	47.1	851	3 714 545	21 000
1994–95	40.2	48.9	959	4 250 272	22 056
1995–96	43.0	51.3	1 000	3 846 572	22 472
1996–97	43.6	55.6	795	3 760 247	22 583
1997–98	45.8	63.9	734	4 237 577	25 361
1998–99	46.8	67.5	693	4 989 119	27 167
1999–00	46.0	67.7	649	5 250 635	27 722
2000–01	50.2	67.2	561	6 136 743	28 528
2001–02	51.6	67.6	561	6 276 387	28 944
2002–03	52.0	70.1	817	5 710 951	28 488
2003–04	55.0	72.0	1 010	6 136 583	31 694
2004–05	56.5	71.6	1 052	6 355 429	30 150
2005–06	57.5	73.2	1 127	6 067 779	30 475
2006–07	58.4	73.0	1 080	8 503 860	31 174
2007–08	57.2	73.3	1 530	9 333 290	30 363
2008–09	59.7	81.6	1 121	11 516 940	32 025
2009–10	53.9	80.0	990	11 530 914	31 630
2010–11	50.7	78.7	982	11 906 109	30 146
2011–12	50.9	78.4	1 074	13 065 303	29 738
2012–13	49.7	65.3	1 096	13 138 820	27 510

Source: BITRE estimates based on BREE (2013a) and BREE (2014a).

Table E 2.3a Energy inputs—Australian gas production and distribution,
input fuel—energy units

Financial year	Black coal	LPG and other petroleum products	Natural gas	Town gas	Electricity
<i>petajoules</i>					
1974–75	1.8	18.4	8.1	1.9	0.1
1975–76	1.5	17.1	8.1	1.9	0.1
1976–77	1.6	10.8	16.6	2.1	0.1
1977–78	1.1	4.3	19.3	2.1	0.1
1978–79	0.8	4.2	18.9	1.9	0.1
1979–80	0.6	4.2	20.3	1.9	0.1
1980–81	0.7	4.1	19.3	2.0	0.1
1981–82	0.3	4.0	21.0	1.9	0.1
1982–83	0.2	3.3	22.0	1.7	0.1
1983–84	0.1	3.2	22.3	1.5	0.1
1984–85	0.0	2.0	23.0	1.3	0.1
1985–86	0.0	1.8	21.8	1.0	0.1
1986–87	0.0	1.6	21.8	0.8	0.1
1987–88	0.0	1.4	19.4	0.7	0.1
1988–89	0.0	1.4	18.4	0.4	0.1
1989–90	0.0	1.5	17.9	0.4	0.1
1990–91	0.0	1.3	15.8	0.2	0.1
1991–92	0.0	1.3	15.7	0.2	0.0
1992–93	0.0	1.3	14.7	0.2	0.0
1993–94	0.0	0.9	14.0	0.2	0.0
1994–95	0.0	1.0	13.7	0.2	0.0
1995–96	0.0	1.0	12.9	0.2	0.0
1996–97	0.0	1.0	13.0	0.1	0.0
1997–98	0.0	1.0	13.6	0.0	0.0
1998–99	0.0	1.0	14.2	0.0	0.0
1999–00	0.0	1.1	14.7	0.0	0.1
2000–01	0.0	1.0	15.3	0.0	0.1
2001–02	0.0	1.0	16.8	0.0	0.1
2002–03	0.0	0.9	17.9	0.0	0.1
2003–04	0.0	1.1	20.0	0.0	0.1
2004–05	0.0	1.4	15.3	0.0	0.0
2005–06	0.0	1.4	15.2	0.0	0.0
2006–07	0.0	0.9	12.3	0.0	0.0
2007–08	0.0	0.7	12.6	0.0	0.0
2008–09	0.0	0.5	12.3	0.0	0.0
2009–10	0.0	0.4	12.3	0.0	0.0
2010–11	0.0	0.3	12.6	0.0	0.0
2011–12	0.0	0.2	12.6	0.0	0.0
2012–13	0.0	0.2	12.6	0.0	0.0

Source: BREE (2014b).

Table E 2.3b Australian natural gas production and distribution, input fuel—physical units

Financial year	Black coal	LPG and other petroleum products	Natural gas	Town gas	Electricity
	<i>million tonnes</i>	<i>megalitres</i>	<i>megalitres</i>	<i>megalitres</i>	<i>gigawatt hours</i>
1974–75	0.1	543	205 658	48 241	28
1975–76	0.1	517	205 658	48 241	28
1976–77	0.1	333	421 473	53 319	28
1977–78	0.0	144	490 025	53 319	28
1978–79	0.0	141	479 869	48 241	28
1979–80	0.0	143	515 415	48 241	28
1980–81	0.0	138	490 025	50 780	28
1981–82	0.0	135	533 188	48 241	28
1982–83	0.0	111	558 578	43 163	28
1983–84	0.0	110	566 195	38 085	28
1984–85	0.0	75	583 968	33 007	28
1985–86	0.0	68	553 500	25 390	28
1986–87	0.0	60	553 500	20 312	28
1987–88	0.0	53	492 564	17 773	28
1988–89	0.0	53	467 174	10 156	28
1989–90	0.0	57	454 480	10 156	28
1990–91	0.0	49	401 161	5 078	28
1991–92	0.0	49	398 622	5 078	0
1992–93	0.0	49	373 232	5 078	0
1993–94	0.0	34	355 459	5 078	0
1994–95	0.0	38	347 842	5 078	0
1995–96	0.0	38	327 530	5 078	0
1996–97	0.0	38	330 069	2 539	0
1997–98	0.0	38	345 303	0	0
1998–99	0.0	38	360 537	0	0
1999–00	0.0	42	373 232	0	28
2000–01	0.0	38	388 466	0	28
2001–02	0.0	38	426 551	0	28
2002–03	0.0	34	454 383	1 041	22
2003–04	0.0	42	508 616	1 041	22
2004–05	0.0	51	388 745	1 041	3
2005–06	0.0	54	386 988	1 021	3
2006–07	0.0	36	311 717	790	6
2007–08	0.0	27	318 671	592	3
2008–09	0.0	20	311 814	444	3
2009–10	0.0	15	313 512	333	3
2010–11	0.0	11	320 258	249	3
2011–12	0.0	8	319 174	188	3
2012–13	0.0	6	320 931	140	3

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

CHAPTER 3

Energy production and usage

Table E 3.1a Energy production and trade—Australian energy production (primary fuels), by fuel type—New South Wales

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
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	GWh	petajoules	tonnes
1974–75	34 828		1 418		0		7 489	0	
1975–76	33 312		1 371		0		7 986	0	
1976–77	38 262		1 337		0		5 529	0	
1977–78	40 592		1 285		0		6 231	0	
1978–79	40 995		1 309		0		7 169	0	
1979–80	39 970		1 341		0		4 786	0	
1980–81	47 923		1 359		0		5 586	0	
1981–82	50 077		1 376		0		5 455	0	
1982–83	56 669		1 405		0		4 029	0	
1983–84	55 014		1 507		0		4 161	0	
1984–85	57 496		1 552		0		5 288	1	
1985–86	63 159		1 590		0		5 310	1	
1986–87	72 343		1 624		0		4 487	1	
1987–88	62 403		1 657		0		4 463	1	
1988–89	66 605		1 688		0		4 568	1	
1989–90	76 479		1 754		0		4 741	1	
1990–91	78 491		1 805		0		6 237	1	
1991–92	82 339		1 888		0		5 298	1	
1992–93	82 745		1 950		0		6 642	1	
1993–94	82 779		1 970		0		5 770	1	
1994–95	87 410		1 992		0		5 728	1	
1995–96	90 856		1 975		0		5 058	1	
1996–97	98 287		1 983		50		5 279	1	
1997–98	107 708		2 006		112		4 056	1	
1998–99	103 421		2 040		190		4 805	1	
1999–00	105 193		2 027		216		5 030	1	
2000–01	110 240		1 969		222		5 157	1	
2001–02	114 329		1 574		230		4 274	1	
2002–03	111 533		1 915		211		4 868	1	
2003–04	114 239		1 863		213		4 811	1	
2004–05	119 835		1 791		210		4 434	1	
2005–06	124 611		1 750		260		5 621	1	
2006–07	130 885		1 733		285		4 639	2	
2007–08	134 978		1 807		140		2 642	2	
2008–09	137 798		1 907		125		3 174	3	
2009–10	147 299		2 037		169		3 821	3	
2010–11	156 951		2 098		183		5 267	3	
2011–12	167 171		2 080		172		3 793	4	
2012–13	185 553		1 984		159		5 652	4	

^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: BREE (2014b).

Table E 3.1b Energy production and trade—Australian energy production (primary fuels), by fuel type—Victoria

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
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	GWh	petajoules	tonnes
1974–75	0	27 542	1 874	23 103	2 414	64	991	0	
1975–76	0	29 212	1 827	24 027	2 793	73	810	0	
1976–77	0	30 994	1 739	25 177	3 171	103	538	0	
1977–78	0	30 473	1 764	26 377	3 366	129	515	0	
1978–79	0	32 101	1 786	26 239	3 810	144	557	0	
1979–80	0	32 895	1 793	25 192	4 347	147	584	0	
1980–81	0	32 103	1 853	24 405	5 264	139	670	0	
1981–82	0	37 567	1 921	24 024	5 919	150	737	0	
1982–83	0	34 708	1 979	23 093	5 631	168	929	0	
1983–84	0	33 257	1 885	27 181	5 957	175	532	0	
1984–85	0	38 380	1 822	29 541	5 444	172	525	0	
1985–86	0	36 075	1 856	28 716	5 643	159	697	0	
1986–87	0	41 804	1 871	27 325	5 422	154	706	0	
1987–88	0	43 399	1 834	25 800	5 376	153	945	0	
1988–89	0	48 289	1 870	21 387	5 645	153	688	0	
1989–90	0	45 989	1 953	21 362	6 393	158	803	0	
1990–91	0	49 386	1 960	19 983	5 679	146	765	0	
1991–92	0	50 723	1 981	19 431	5 899	149	734	0	
1992–93	0	47 648	2 031	20 580	6 053	162	713	0	
1993–94	0	48 752	2 106	19 267	5 793	162	1 117	0	
1994–95	0	50 751	2 110	16 948	6 415	181	1 042	0	
1995–96	0	53 712	2 141	14 499	6 520	165	642	0	
1996–97	0	58 156	2 154	14 052	5 924	156	1 024	0	
1997–98	0	65 274	2 088	15 856	5 975	176	1 152	0	
1998–99	0	66 648	2 067	11 366	5 655	121	748	0	
1999–00	0	67 363	2 049	13 528	5 860	140	512	0	
2000–01	0	64 958	2 003	11 134	6 359	332	625	0	
2001–02	0	66 661	1 995	10 884	6 533	269	761	0	
2002–03	0	66 809	1 892	9 705	7 051	163	1 064	0	
2003–04	0	66 343	1 850	8 851	7 827	172	854	0	
2004–05	0	67 152	1 804	7 449	8 165	182	817	0	
2005–06	0	67 737	1 734	6 399	8 665	187	465	0	
2006–07	0	65 613	1 690	6 323	9 632	190	590	0	
2007–08	0	66 033	1 638	6 087	10 984	195	1 583	1	
2008–09	0	68 252	1 505	6 290	10 667	139	558	1	
2009–10	0	68 751	1 497	6 386	9 564	173	844	2	
2010–11	0	65 662	1 473	5 617	11 086	151	1 119	2	
2011–12	0	69 652	1 515	4 829	10 553	160	1 047	2	
2012–13	0	60 502	1 554	4 597	11 597	163	940	2	

^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: BREE (2014b).

Table E 3.1c Energy production and trade—Australian energy production (primary fuels), by fuel type—Queensland

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
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	GWh	petajoules	tonnes
1974–75	23 902		572	73	258		694	0	0
1975–76	23 921		552	73	238		804	0	120
1976–77	25 671		526	65	237		814	0	486
1977–78	24 954		533	62	277		598	0	493
1978–79	26 939		543	71	280		710	0	680
1979–80	27 510		565	80	313		569	0	813
1980–81	32 849		517	81	338		727	0	836
1981–82	34 276		466	86	356		720	0	907
1982–83	35 812		409	103	434		428	0	354
1983–84	44 036		394	284	434		480	0	0
1984–85	54 288		397	1 263	479		1 118	0	0
1985–86	63 997		399	1 809	517		1 123	0	0
1986–87	68 820		386	1 937	524		979	0	0
1987–88	65 819		390	1 663	601		770	0	0
1988–89	74 118		406	1 661	541		874	0	0
1989–90	74 931		433	1 565	579		978	0	0
1990–91	78 363		443	1 407	1 102		1 027	0	0
1991–92	84 085		483	1 328	1 292		758	0	0
1992–93	85 301		498	1 220	1 635		685	0	0
1993–94	85 648		502	1 192	2 142		834	0	0
1994–95	94 381		508	1 206	2 657		756	0	0
1995–96	93 763		493	1 144	2 778		883	0	0
1996–97	99 437		498	1 029	2 644		897	0	0
1997–98	105 752		506	901	3 286		600	0	0
1998–99	112 634		510	873	3 775		896	0	0
1999–00	124 348		502	781	4 811		926	0	0
2000–01	138 286		505	735	4 770		868	0	0
2001–02	148 587		501	719	5 557		594	0	0
2002–03	153 602		638	721	5 670		354	0	0
2003–04	160 183		669	665	5 459		562	0	0
2004–05	173 712		675	847	5 826		528	0	0
2005–06	171 689		721	681	5 735		552	0	0
2006–07	184 082		742	965	5 993		880	1	0
2007–08	180 518		762	1 100	6 487		924	1	0
2008–09	190 450		681	1 011	6 484		820	1	0
2009–10	208 946		662	861	7 996		573	2	0
2010–11	179 834		549	532	8 595		966	2	0
2011–12	188 247		488	563	8 979		723	2	0
2012–13	202 688		544	569	8 326		684	2	0

^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: BREE (2014b).

Table E 3.1d Energy production and trade—Australian energy production (primary fuels), by fuel type—Western 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
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	GWh	petajoules	tonnes
1974–75	1 877		701	2 095	831		13	0	
1975–76	2 143		685	1 962	843		10	0	
1976–77	2 376		628	1 843	858		1	0	
1977–78	2 424		603	1 802	819		1	0	
1978–79	2 407		610	1 708	842		0	0	
1979–80	3 029		621	1 507	867		0	1	
1980–81	3 118		586	1 530	880		0	1	
1981–82	3 415		530	1 241	836		1	1	
1982–83	3 962		526	1 325	1 003		2	1	
1983–84	3 925		522	1 260	1 012		0	1	
1984–85	3 654		537	1 415	1 911		2	1	
1985–86	3 750		503	1 812	2 928		3	1	
1986–87	3 782		503	2 174	3 377		0	1	
1987–88	3 686		541	3 100	3 887		0	1	
1988–89	3 891		597	3 205	4 071		0	1	
1989–90	4 125		633	5 809	7 446		1	1	
1990–91	5 206		656	6 897	9 389		0	1	
1991–92	5 477		622	7 350	10 439		1	1	
1992–93	5 395		638	6 693	11 866		6	1	
1993–94	5 153		682	7 639	13 579		4	1	
1994–95	5 824		695	12 680	15 774		4	1	
1995–96	5 971		702	14 322	16 407		2	1	
1996–97	5 593		713	15 974	16 734		6	1	
1997–98	5 798		715	17 561	18 140		200	1	
1998–99	5 741		719	16 848	18 545		206	1	
1999–00	6 628		723	19 489	18 885		207	1	
2000–01	6 193		724	20 623	19 178		202	1	
2001–02	6 595		770	23 135	19 444		212	1	
2002–03	6 136		651	22 863	20 179		207	1	
2003–04	5 981		639	21 166	20 561		206	1	
2004–05	6 099		623	20 048	24 582		212	1	
2005–06	6 701		609	18 811	25 887		163	1	
2006–07	6 018		596	21 219	27 198		150	2	
2007–08	6 231		585	19 397	27 499		51	3	
2008–09	6 998		530	19 559	29 712		0	3	
2009–10	6 713		460	18 693	32 847		0	3	
2010–11	7 234		444	21 473	34 492		0	3	
2011–12	6 986		439	18 787	32 083		0	3	
2012–13	7 494		452	15 757	38 958		221	3	

^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: BREE (2014b).

Table E 3.1e Energy production and trade—Australian energy production (primary fuels), by fuel type—South 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
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	GWh	petajoules	tonnes
1974–75		1 793	666	35	1 314	0		0	0
1975–76		1 819	655	42	1 502	0		0	0
1976–77		1 945	550	43	2 132	0		0	0
1977–78		1 780	533	46	2 591	0		0	0
1978–79		1 471	532	49	2 932	0		0	0
1979–80		1 717	562	44	3 567	0		0	0
1980–81		1 732	581	61	4 037	0		0	0
1981–82		1 436	568	65	4 537	0		0	0
1982–83		1 451	606	453	4 686	0		0	0
1983–84		1 328	555	1 233	4 907	0		0	0
1984–85		1 745	563	2 525	5 307	28		0	0
1985–86		2 167	606	3 225	5 373	37		0	0
1986–87		2 426	612	3 034	5 444	26		0	0
1987–88		2 519	620	3 043	5 348	36		0	0
1988–89		2 758	632	3 222	5 452	32		0	912
1989–90		2 943	656	3 137	5 512	26		0	1 005
1990–91		2 527	686	3 053	4 912	26		0	1 458
1991–92		2 887	711	2 895	4 905	27		0	1 349
1992–93		2 785	753	2 596	4 645	23		0	1 351
1993–94		2 692	875	2 428	4 539	17		0	1 271
1994–95		3 039	865	2 213	4 091	21		0	1 073
1995–96		2 447	863	2 014	3 744	38		0	1 635
1996–97		2 594	868	1 862	4 047	279		0	1 737
1997–98		2 697	838	1 851	3 674	390		0	1 626
1998–99		2 799	840	1 946	3 738	441		0	2 012
1999–00		2 874	830	1 767	3 234	472		0	4 073
2000–01		3 160	824	1 722	3 432	344		0	4 963
2001–02		3 365	551	1 636	3 257	269		0	4 017
2002–03		3 240	787	1 546	3 262	243		0	3 860
2003–04		3 208	742	1 448	2 388	207		0	4 902
2004–05		3 381	711	1 285	1 932	225		0	5 420
2005–06		3 479	734	1 294	1 660	269		0	4 790
2006–07		3 880	775	1 852	1 661	249		1	4 328
2007–08		3 874	754	2 094	1 548	259		1	4 850
2008–09		3 619	692	2 653	1 945	256		1	4 633
2009–10		3 796	622	2 769	1 563	166		1	2 847
2010–11		3 670	598	1 460	1 435	116		1	4 392
2011–12		2 587	538	1 583	1 563	171		1	4 373
2012–13		2 151	529	1 885	2 000	164		1	4 686

^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: BREE (2014b).

Table E 3.1f Energy production and trade—Australian energy production (primary fuels), by fuel type—Tasmania

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
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	GWh	petajoules	tonnes
1974–75	101		395				5 918		
1975–76	133		385				5 899		
1976–77	163		378				6 789		
1977–78	156		378				7 113		
1978–79	195		381				7 599		
1979–80	163		385				7 843		
1980–81	208		405				7 844		
1981–82	249		448				7 659		
1982–83	329		451				7 526		
1983–84	280		524				7 715		
1984–85	321		554				8 033		
1985–86	310		587				8 381		
1986–87	394		621				8 378		
1987–88	380		689				8 786		
1988–89	407		750				8 900		
1989–90	356		763				8 357		
1990–91	350		783				8 076		
1991–92	342		733				8 977		
1992–93	301		758				8 907		
1993–94	378		723				8 924		
1994–95	401		736				8 709		
1995–96	400		751				9 146		
1996–97	392		761				9 646		
1997–98	414		764				9 725		
1998–99	419		732				9 908		
1999–00	387		724				10 045		
2000–01	339		717				10 081		
2001–02	360		784				10 213		
2002–03	343		614				9 997		
2003–04	350		604				9 898		
2004–05	388		588				9 620		
2005–06	431		551				9 236		
2006–07	406		551				8 258		
2007–08	437		544				6 854		
2008–09	384		516				7 314		
2009–10	372		479				8 307		
2010–11	381		392				9 452		
2011–12	304		412				8 516		
2012–13	360		434				10 766		

^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: BREE (2014b).

Table E 3.1g Energy production and trade—Australian energy production (primary fuels), by fuel type—Northern Territory

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
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	GWh	petajoules	tonnes
1974–75			19	0	0				0
1975–76			19	0	0				0
1976–77			19	0	0				0
1977–78			19	0	0				0
1978–79			19	0	0				0
1979–80			19	0	0				0
1980–81			19	0	0				0
1981–82			19	0	0				4 157
1982–83			19	0	0				4 231
1983–84			19	0	3				4 384
1984–85			20	75	26				4 327
1985–86			21	187	31				4 450
1986–87			21	935	127				4 505
1987–88			21	1 478	276				4 193
1988–89			21	2 542	259				3 595
1989–90			22	3 907	324				3 084
1990–91			23	4 164	341				2 909
1991–92			24	3 893	353				2 980
1992–93			25	3 425	354				1 335
1993–94			26	2 120	351				1 462
1994–95			27	1 734	378				1 548
1995–96			27	1 545	441				3 453
1996–97			25	1 140	462				4 238
1997–98			25	936	479				4 162
1998–99			25	770	494				4 375
1999–00			25	6 268	535				4 144
2000–01			10	9 682	529				4 586
2001–02			6	6 059	540				3 806
2002–03			6	4 871	452				5 312
2003–04			5	3 223	424				4 667
2004–05			5	2 309	479				5 544
2005–06			5	1 852	494				5 184
2006–07			5	1 843	532				5 261
2007–08			5	903	541				5 273
2008–09			5	824	537				5 678
2009–10			4	1 061	512				4 262
2010–11			4	597	607				2 677
2011–12			4	2 119	667				3 284
2012–13			4	1 989	661				4 313

^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: BREE (2014b).

Table E 3.1h 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
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	GWh	petajoules	tonnes
1974–75	62 501	29 335	11 887	25 306	4 817	64	15 105	0.00	0
1975–76	61 328	31 031	12 085	26 059	5 376	73	15 509	0.19	484
1976–77	68 417	32 939	12 314	27 128	6 398	103	13 670	0.27	480
1977–78	69 906	32 253	12 255	28 287	7 053	129	14 458	0.39	696
1978–79	72 007	33 572	11 448	28 067	7 864	144	16 035	1.00	951
1979–80	72 389	34 612	11 604	26 823	9 094	147	13 782	0.81	1 837
1980–81	85 830	33 835	12 492	26 077	10 519	139	14 827	1.03	3 944
1981–82	89 453	39 003	13 083	25 419	11 648	150	14 572	1.27	5 968
1982–83	98 223	36 159	12 921	24 978	11 754	168	12 914	1.55	4 334
1983–84	104 583	34 585	12 629	29 960	12 312	175	12 888	1.81	5 836
1984–85	117 504	40 125	13 070	34 820	13 167	200	14 966	2.11	4 327
1985–86	133 383	38 242	13 036	35 750	14 495	195	15 514	2.00	4 450
1986–87	147 765	44 230	13 316	35 431	14 895	180	14 550	2.40	4 505
1987–88	134 807	45 918	13 480	35 187	15 483	196	14 964	2.40	4 193
1988–89	147 778	51 047	14 409	32 018	15 964	189	15 030	2.41	4 507
1989–90	158 834	48 932	14 744	35 779	20 077	191	14 880	2.41	4 089
1990–91	164 937	51 913	14 539	35 502	21 049	180	16 103	2.41	4 367
1991–92	175 130	53 610	13 088	34 898	23 297	182	15 768	2.46	4 329
1992–93	176 527	50 433	14 811	34 483	24 417	194	16 953	2.46	2 686
1993–94	176 650	51 444	15 687	32 646	26 567	188	16 649	2.48	2 733
1994–95	191 055	53 790	16 488	34 799	29 264	203	16 239	3.00	2 622
1995–96	193 437	56 159	17 572	33 900	29 890	203	15 731	2.56	5 088
1996–97	206 303	60 750	18 452	34 838	29 861	435	16 852	2.57	5 975
1997–98	222 369	67 971	18 718	38 398	31 666	566	15 733	2.59	5 788
1998–99	225 014	69 447	18 346	31 802	32 397	562	16 563	2.63	6 387
1999–00	239 430	70 237	17 891	41 833	33 541	612	16 720	2.65	8 217
2000–01	258 218	68 118	17 013	43 895	34 490	676	16 933	2.60	9 549
2001–02	273 236	70 026	15 420	42 432	35 039	538	16 054	2.71	7 823
2002–03	271 613	70 049	16 271	39 706	36 826	406	16 490	3.00	9 172
2003–04	280 753	69 551	16 764	35 352	36 872	380	16 331	3.00	9 569
2004–05	300 034	70 533	17 341	31 939	41 194	407	15 612	3.00	10 964
2005–06	303 431	71 216	17 363	29 037	42 701	456	16 029	3.00	9 974
2006–07	321 391	69 493	17 538	32 202	45 301	439	14 517	6.00	9 589
2007–08	322 163	69 907	17 641	29 581	47 199	454	12 057	7.00	10 123
2008–09	335 630	71 871	14 311	30 336	49 470	395	11 869	8.00	10 311
2009–10	363 330	72 547	16 352	29 770	52 651	339	13 549	11.00	7 109
2010–11	344 400	69 333	14 238	29 678	56 398	267	16 807	12.00	7 069
2011–12	362 709	72 240	14 316	27 881	54 017	331	14 083	12.00	7 657
2012–13	396 095	62 653	15 425	24 797	61 699	327	18 270	13.00	8 999

^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: BREE (2014b).

Table E 3.2 Energy production and trade—Australian energy imports, by fuel type

Financial year	Natural gas	Petroleum products						Fuel oil	Bitumen, lubricants and greases
		Crude oil and other refinery fuel	LPG	Automotive gasoline	Aviation turbine fuel	Automotive diesel oil			
		gigalitres	megalitres	megalitres	megalitres	megalitres	megalitres		
1974–75	0	10 171	0	407	96	479	2 574	69	
1975–76	0	9 702	0	876	101	377	2 123	59	
1976–77	0	10 116	0	922	129	492	2 234	28	
1977–78	0	11 214	0	758	100	529	2 001	57	
1978–79	0	10 407	0	708	193	411	2 482	61	
1979–80	0	11 263	0	488	178	620	2 649	77	
1980–81	0	11 450	1	419	150	637	2 070	71	
1981–82	0	12 460	2	399	106	523	1 529	61	
1982–83	0	11 780	2	553	107	468	1 180	50	
1983–84	0	8 553	6	338	63	322	1 419	30	
1984–85	0	7 294	4	590	95	679	1 102	54	
1985–86	0	6 186	1	505	165	715	1 093	53	
1986–87	0	7 724	38	1 276	219	1 016	1 180	57	
1987–88	0	9 577	42	908	171	708	1 010	54	
1988–89	0	12 058	39	1 565	197	847	309	52	
1989–90	0	11 603	85	1 703	234	1 028	0	122	
1990–91	0	13 389	36	717	104	462	0	30	
1991–92	0	15 332	49	357	103	390	413	38	
1992–93	0	19 421	115	440	36	702	1 124	30	
1993–94	0	20 296	164	447	189	764	944	56	
1994–95	0	20 639	266	745	231	767	948	64	
1995–96	0	23 703	415	447	302	1 110	720	34	
1996–97	0	24 768	588	1 074	306	952	809	36	
1997–98	0	25 017	511	483	111	770	795	53	
1998–99	0	29 729	496	890	140	1 435	596	7	
1999–00	0	26 936	519	1 065	171	1 400	799	137	
2000–01	0	26 489	633	1 189	387	1 129	814	102	
2001–02	0	27 308	588	1 436	225	1 280	557	93	
2002–03	0	27 959	299	1 673	429	1 627	611	313	
2003–04	0	23 499	785	3 242	681	3 374	1 285	461	
2004–05	0	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	32 225	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	

Source: BREE (2014b).

Table E 3.3a 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
<i>megalitres</i>								
1974–75	0	2 000	249	24	356	336	540	0
1975–76	0	1 950	155	14	278	387	823	0
1976–77	0	2 253	211	21	271	263	713	0
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	182
2003–04	17 526	2 916	774	36	528	872	81	136
2004–05	15 731	2 844	774	38	240	367	201	174
2005–06	13 026	2 800	714	85	127	419	490	199
2006–07	15 965	2 824	771	81	120	288	209	231
2007–08	15 975	2 589	628	96	149	462	257	178
2008–09	16 588	2 500	244	56	106	357	188	183
2009–10	18 064	2 776	222	32	72	187	109	212
2010–11	19 620	2 471	175	20	12	117	194	200
2011–12	17 424	2 115	175	17	2	130	485	288
2012–13	15 761	2 386	100	22	13	91	220	429

Source: BREE (2014b).

Table E 3.3b Energy production and trade—Australian energy exports, by fuel type—non-petroleum exports

Financial year	Black coal		Uranium	Briquettes	Coke ^m	LNG
	Coking <i>kilotonnes</i>	Steaming <i>kilotonnes</i>				
1974–75	28 666	3 756	0	1	421	0
1975–76	27 431	2 994	0	2	182	0
1976–77	32 219	3 153	750	44	189	0
1977–78	33 634	4 277	1 452	42	149	0
1978–79	33 257	5 021	1 317	25	147	0
1979–80	36 144	7 017	1 210	25	122	0
1980–81	36 404	10 844	1 625	39	21	0
1981–82	36 539	9 582	5 460	46	9	0
1982–83	38 866	15 779	3 233	47	5	0
1983–84	44 509	19 819	3 259	54	14	0
1984–85	50 800	35 300	3 441	47	11	0
1985–86	51 800	38 500	3 210	62	217	0
1986–87	54 400	43 300	4 364	53	108	0
1987–88	57 100	45 000	4 552	75	816	0
1988–89	57 208	40 448	5 061	24	986	0
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	0	67	7 819
1999–00	96 808	78 970	8 025	0	24	7 923
2000–01	105 527	87 975	9 722	0	19	7 530
2001–02	105 833	92 040	7 367	0	81	7 600
2002–03	107 794	99 950	9 593	0	262	7 826
2003–04	111 732	106 694	9 099	0	1	7 914
2004–05	124 915	106 396	11 249	0	0	10 589
2005–06	120 479	110 821	10 253	0	0	12 029
2006–07	131 965	111 624	9 519	0	0	14 332
2007–08	136 921	115 069	10 139	0	0	13 678
2008–09	125 238	136 362	10 114	0	0	15 410
2009–10	157 265	134 985	7 555	0	0	17 866
2010–11	140 455	143 320	6 950	0	0	19 957
2011–12	142 396	158 436	6 917	0	543	18 866
2012–13	154 193	181 659	8 391	0	628	23 944

^m Coke exports have been confidentialised since 2003–04, values since then are BREE estimates.
Source: BREE (2014b).

Table E 3.4 Electricity usage—Australian electricity consumption, by state/territory

Financial year	NSW	VIC	QLD	WA	SA	TAS	NT	Australia
	<i>gigawatt hours</i>							
1974–75	27 250	18 922	9 430	5 989	5 665	6 100	646	74 002
1975–76	27 879	19 962	9 779	6 508	5 966	6 034	701	76 828
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	73 612	49 392	51 841	20 368	13 566	10 973	2 369	222 120
2003–04	75 741	50 043	55 440	20 639	14 208	11 313	2 401	229 784
2004–05	74 406	50 711	54 414	20 960	13 977	11 787	2 395	228 650
2005–06	75 645	51 962	54 466	22 406	14 295	11 513	2 543	232 829
2006–07	78 855	53 745	56 863	23 440	14 970	12 190	3 090	243 153
2007–08	78 407	53 490	56 894	24 396	14 883	12 078	3 068	243 217
2008–09	79 140	53 672	58 811	27 706	15 410	11 869	2 922	249 531
2009–10	80 020	54 627	57 984	28 827	15 375	12 037	3 263	252 133
2010–11	80 537	51 594	57 465	31 577	15 833	12 526	3 088	252 620
2011–12	78 053	52 395	57 703	31 445	15 412	11 728	3 148	249 884
2012–13	74 373	51 371	59 320	33 270	15 686	11 741	3 314	249 075

Source: BREE (2014b).

Table E 3.5a Electricity usage—Australian electricity consumption, by industry—
New South Wales

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water		
<i>gigawatt hours</i>								
1974–75	889	np	np	8 833	3 917	222	4 278	9 111
1975–76	889	np	np	8 830	3 860	250	4 471	9 580
1976–77	945	np	np	9 029	4 778	250	4 834	10 473
1977–78	973	np	np	9 392	5 085	250	5 140	10 948
1978–79	1 000	np	np	9 724	5 834	278	5 557	11 808
1979–80	1 055	np	np	10 551	6 525	333	6 164	12 079
1980–81	1 167	np	np	11 281	6 502	417	6 641	12 837
1981–82	1 194	np	np	11 166	6 555	472	6 805	13 472
1982–83	1 222	np	np	10 306	6 306	472	6 806	13 362
1983–84	1 222	np	np	12 501	6 612	472	6 945	13 501
1984–85	1 305	np	np	14 636	7 276	444	7 387	13 664
1985–86	1 528	np	np	15 974	6 529	528	7 945	14 391
1986–87	1 584	np	np	16 782	6 835	500	8 363	14 837
1987–88	1 528	np	np	17 420	6 446	528	9 002	15 087
1988–89	1 639	np	np	17 997	7 054	528	9 498	15 025
1989–90	1 889	np	np	18 637	7 083	528	10 054	16 026
1990–91	1 889	np	np	18 639	6 278	528	10 584	16 223
1991–92	1 916	np	np	18 995	6 304	555	10 636	16 135
1992–93	1 944	np	np	19 806	6 361	556	10 722	16 778
1993–94	1 972	np	np	21 641	6 501	556	10 862	16 696
1994–95	2 083	np	np	21 668	6 889	556	11 417	17 112
1995–96	2 223	np	np	21 476	6 973	556	12 641	17 503
1996–97	2 194	np	np	22 274	6 888	583	12 970	18 192
1997–98	2 333	np	np	23 190	7 415	611	13 803	18 302
1998–99	2 417	np	np	23 866	7 418	611	14 614	18 560
1999–00	2 417	np	np	24 341	7 613	639	14 921	19 284
2000–01	3 212	np	np	24 304	8 101	1 052	14 781	20 239
2001–02	3 287	np	np	24 297	7 861	1 115	15 293	20 695
2002–03	3 060	np	np	21 175	8 362	1 218	18 700	21 098
2003–04	3 559	np	np	21 093	8 954	1 288	19 048	21 799
2004–05	3 465	np	np	20 499	8 945	1 240	18 811	21 446
2005–06	3 471	np	np	20 667	9 417	1 317	19 251	21 522
2006–07	3 729	np	np	22 127	9 547	1 381	20 209	21 863
2007–08	3 761	np	np	21 813	9 326	1 358	20 090	22 059
2008–09	3 757	np	np	21 765	9 441	1 044	20 283	22 850
2009–10	3 848	np	np	22 057	9 374	1 032	20 295	23 414
2010–11	3 864	np	np	22 340	9 012	906	20 497	23 917
2011–12	4 141	np	np	21 136	8 251	840	20 227	23 458
2012–13	4 496	np	np	18 198	6 885	614	21 050	23 130

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

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.5b Electricity usage—Australian electricity consumption, by industry—Victoria

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water		
<i>gigawatt hours</i>								
1974–75	361	np	np	6 613	2 890	222	3 001	5 835
1975–76	416	np	np	6 885	3 137	222	3 221	6 080
1976–77	472	np	np	6 887	3 333	222	3 416	6 693
1977–78	500	np	np	6 974	3 223	250	3 501	6 946
1978–79	527	np	np	7 496	3 498	250	3 831	7 218
1979–80	500	np	np	7 865	3 502	278	4 030	7 420
1980–81	528	np	np	8 780	3 862	278	4 335	7 613
1981–82	583	np	np	9 223	4 167	306	4 445	7 862
1982–83	584	np	np	8 921	4 057	306	4 724	7 865
1983–84	639	np	np	9 301	4 109	305	4 886	7 912
1984–85	667	np	np	9 499	4 527	333	5 111	7 944
1985–86	750	np	np	9 920	4 585	306	5 446	8 169
1986–87	750	np	np	11 060	4 863	333	5 780	8 337
1987–88	778	np	np	13 136	5 027	333	6 276	8 359
1988–89	778	np	np	15 690	5 582	333	6 582	8 470
1989–90	778	np	np	15 807	5 445	361	7 084	8 751
1990–91	695	np	np	15 752	5 473	361	7 334	8 862
1991–92	722	np	np	15 802	5 832	361	7 387	8 803
1992–93	750	np	np	16 223	5 639	361	7 723	8 945
1993–94	750	np	np	16 058	5 445	361	7 946	8 668
1994–95	750	np	np	15 808	5 695	361	8 501	9 113
1995–96	666	np	np	15 297	5 442	389	8 829	9 439
1996–97	722	np	np	15 492	5 442	389	9 328	9 773
1997–98	750	np	np	16 392	6 779	417	9 641	10 280
1998–99	750	np	np	16 640	8 362	417	9 973	10 640
1999–00	805	np	np	17 081	8 526	417	10 332	10 415
2000–01	796	np	np	20 435	8 640	455	11 084	10 743
2001–02	796	np	np	21 185	8 787	455	11 403	10 465
2002–03	492	np	np	14 475	8 841	482	13 808	11 294
2003–04	480	np	np	14 566	8 853	523	14 136	11 486
2004–05	667	np	np	15 259	9 070	504	14 049	11 162
2005–06	650	np	np	15 491	9 332	550	14 411	11 527
2006–07	702	np	np	16 330	8 451	582	15 688	11 992
2007–08	721	np	np	16 515	8 038	569	15 655	11 991
2008–09	740	np	np	16 213	8 161	607	16 098	11 852
2009–10	774	np	np	17 195	7 961	746	16 175	11 776
2010–11	874	np	np	14 755	7 281	489	16 491	11 704
2011–12	820	np	np	14 739	8 474	468	16 520	11 373
2012–13	692	np	np	14 538	7 684	417	16 935	11 105

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

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.5c Electricity usage—Australian electricity consumption, by industry—Queensland

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water		
<i>gigawatt hours</i>								
1974–75	1 248	np	np	2 247	1 331	56	1 609	2 940
1975–76	1 250	np	np	2 389	1 472	56	1 584	3 028
1976–77	1 334	np	np	2 529	1 584	55	1 834	3 279
1977–78	1 333	np	np	2 582	1 721	56	2 055	3 554
1978–79	1 361	np	np	2 610	1 944	55	2 166	3 748
1979–80	1 334	np	np	2 834	1 945	55	2 528	3 862
1980–81	1 417	np	np	2 889	2 195	55	2 834	4 111
1981–82	1 528	np	np	3 167	2 306	55	3 111	4 473
1982–83	1 637	np	np	4 080	2 359	83	3 219	4 746
1983–84	1 583	np	np	6 026	2 666	83	3 305	4 888
1984–85	1 693	np	np	6 774	3 498	83	3 553	5 025
1985–86	1 805	np	np	7 024	4 165	83	3 998	5 192
1986–87	1 971	np	np	7 272	4 191	111	4 413	5 385
1987–88	2 112	np	np	7 586	3 918	83	4 946	5 668
1988–89	2 276	np	np	7 828	4 053	83	5 524	5 913
1989–90	2 472	np	np	8 195	4 389	111	5 972	6 334
1990–91	2 584	np	np	8 363	4 473	111	6 335	6 557
1991–92	2 777	np	np	8 386	5 026	139	6 692	6 803
1992–93	2 916	np	np	8 692	5 138	111	7 054	7 082
1993–94	3 083	np	np	9 081	5 221	111	7 331	7 387
1994–95	3 222	np	np	9 305	5 555	112	8 055	7 750
1995–96	3 194	np	np	9 555	5 917	111	8 805	7 972
1996–97	3 333	np	np	9 776	6 166	139	9 332	8 221
1997–98	3 583	np	np	12 720	6 999	139	9 887	8 582
1998–99	3 888	np	np	13 301	7 053	139	10 108	8 830
1999–00	4 222	np	np	13 832	7 027	139	10 665	9 027
2000–01	6 150	np	np	15 524	7 672	150	11 136	10 061
2001–02	6 105	np	np	15 738	7 943	0	11 411	10 166
2002–03	4 673	np	np	15 837	7 621	0	13 111	10 599
2003–04	4 800	np	np	15 989	10 087	0	13 402	11 162
2004–05	4 796	np	np	16 632	8 221	165	13 396	11 205
2005–06	4 800	np	np	16 918	7 824	162	13 477	11 285
2006–07	4 753	np	np	16 440	9 443	172	14 372	11 682
2007–08	4 939	np	np	16 208	8 823	315	14 641	11 968
2008–09	5 166	np	np	16 339	9 605	354	14 976	12 370
2009–10	4 671	np	np	16 347	9 311	244	14 846	12 565
2010–11	5 181	np	np	16 496	7 949	237	14 738	12 865
2011–12	5 318	np	np	16 776	8 104	234	14 409	12 862
2012–13	5 605	np	np	17 150	7 923	231	15 458	12 954

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

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.5d Electricity usage—Australian electricity consumption, by industry—South Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water		
<i>gigawatt hours</i>								
1974–75	111	np	np	1 694	833	111	972	1 944
1975–76	111	np	np	1 693	860	166	1 082	2 053
1976–77	111	np	np	1 776	888	361	1 138	2 247
1977–78	111	np	np	1 803	943	416	1 248	2 275
1978–79	111	np	np	1 914	943	194	1 304	2 469
1979–80	139	np	np	1 970	999	194	1 359	2 413
1980–81	139	np	np	1 913	1 137	250	1 469	2 551
1981–82	139	np	np	2 002	1 084	195	1 529	2 669
1982–83	139	np	np	1 914	971	444	1 637	2 774
1983–84	250	np	np	1 830	1 109	194	1 636	2 662
1984–85	278	np	np	1 918	1 167	250	1 723	2 807
1985–86	278	np	np	2 002	1 224	278	1 780	2 809
1986–87	278	np	np	2 030	1 307	139	1 808	2 864
1987–88	277	np	np	2 137	1 332	139	1 970	2 969
1988–89	361	np	np	2 251	1 417	139	2 112	2 974
1989–90	416	np	np	2 524	1 359	139	2 219	3 134
1990–91	444	np	np	2 525	1 249	194	2 275	3 163
1991–92	445	np	np	2 585	1 390	195	2 252	3 113
1992–93	444	np	np	2 747	1 276	83	2 386	3 274
1993–94	416	np	np	2 830	1 360	194	2 442	3 191
1994–95	444	np	np	2 969	1 332	250	2 497	3 385
1995–96	444	np	np	2 970	1 415	139	2 525	3 386
1996–97	417	np	np	2 972	1 416	139	2 666	3 583
1997–98	416	np	np	3 080	1 415	194	2 775	3 691
1998–99	583	np	np	3 277	1 555	250	2 916	3 805
1999–00	612	np	np	3 336	1 640	306	2 975	3 948
2000–01	681	np	np	3 263	1 873	312	3 291	4 256
2001–02	655	np	np	3 103	1 964	313	3 444	4 013
2002–03	1 257	np	np	2 594	1 643	349	3 713	4 009
2003–04	1 248	np	np	2 632	1 706	347	3 832	4 444
2004–05	1 354	np	np	2 553	1 641	329	3 770	4 329
2005–06	1 318	np	np	2 852	1 571	323	3 837	4 394
2006–07	1 451	np	np	3 007	1 459	331	4 065	4 657
2007–08	1 413	np	np	2 928	1 435	325	4 107	4 675
2008–09	1 458	np	np	2 794	1 665	456	4 210	4 827
2009–10	1 312	np	np	2 968	1 605	298	4 229	4 963
2010–11	1 616	np	np	2 745	1 890	309	4 205	5 067
2011–12	1 631	np	np	2 545	1 699	343	4 125	5 069
2012–13	1 705	np	np	2 421	1 735	563	4 248	5 014

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

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.5e Electricity usage—Australian electricity consumption, by industry—Western Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water		
<i>gigawatt hours</i>								
1974–75	1 414	np	np	1 414	776	55	1 054	1 275
1975–76	1 474	np	np	1 585	807	56	1 168	1 418
1976–77	1 497	np	np	1 830	804	55	1 275	1 525
1977–78	1 418	np	np	1 891	890	56	1 362	1 613
1978–79	1 360	np	np	1 998	943	55	1 415	1 720
1979–80	1 168	np	np	2 142	946	56	1 586	1 836
1980–81	1 083	np	np	2 082	1 000	83	1 638	1 999
1981–82	1 195	np	np	2 057	1 056	56	1 751	2 084
1982–83	1 167	np	np	2 112	1 056	56	1 862	2 112
1983–84	1 168	np	np	2 280	1 057	56	1 946	2 141
1984–85	1 276	np	np	2 747	1 249	55	2 109	2 275
1985–86	1 554	np	np	2 941	1 304	83	2 136	2 303
1986–87	1 554	np	np	3 053	1 332	83	2 415	2 443
1987–88	1 779	np	np	3 225	1 390	56	2 586	2 419
1988–89	2 497	np	np	3 330	1 498	83	2 886	2 553
1989–90	3 308	np	np	3 558	1 585	83	3 086	2 641
1990–91	3 473	np	np	3 584	1 639	111	3 223	2 778
1991–92	3 663	np	np	3 746	1 637	111	3 247	2 803
1992–93	3 719	np	np	3 996	1 665	111	3 330	2 803
1993–94	3 720	np	np	4 331	1 749	83	3 525	2 887
1994–95	4 167	np	np	4 500	1 833	83	3 695	3 083
1995–96	4 554	np	np	4 665	1 944	111	3 749	3 082
1996–97	4 580	np	np	4 718	1 860	83	3 886	3 164
1997–98	4 997	np	np	5 108	1 915	83	4 025	3 414
1998–99	5 359	np	np	6 386	1 971	111	4 026	3 554
1999–00	5 669	np	np	7 197	2 084	111	4 113	3 696
2000–01	4 627	np	np	7 016	2 540	151	4 657	4 143
2001–02	4 730	np	np	6 628	2 681	151	4 880	4 308
2002–03	4 773	np	np	5 392	1 089	118	4 800	4 197
2003–04	4 743	np	np	5 450	1 139	127	4 954	4 226
2004–05	4 787	np	np	5 490	1 355	123	4 979	4 226
2005–06	7 511	np	np	4 042	1 423	134	4 898	4 397
2006–07	7 214	np	np	4 892	1 370	141	5 222	4 602
2007–08	6 995	np	np	4 894	1 880	530	5 328	4 768
2008–09	8 013	np	np	7 037	2 241	397	5 193	4 825
2009–10	8 815	np	np	7 608	2 338	366	4 815	4 885
2010–11	10 779	np	np	6 315	2 701	630	5 536	5 615
2011–12	10 515	np	np	6 125	2 354	749	5 963	5 739
2012–13	11 712	np	np	6 980	2 259	791	6 140	5 388

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

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.5f Electricity usage—Australian electricity consumption, by industry—Tasmania

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water			
	gigawatt hours							
1974–75	499	np	np	3 521	582	28	582	887
1975–76	473	np	np	3 420	556	28	640	918
1976–77	473	np	np	4 063	612	28	696	1 002
1977–78	500	np	np	4 309	584	28	723	1 057
1978–79	501	np	np	4 756	640	28	751	1 112
1979–80	500	np	np	4 837	639	28	778	1 167
1980–81	499	np	np	4 741	776	28	860	1 192
1981–82	500	np	np	4 893	639	28	862	1 251
1982–83	500	np	np	4 726	612	28	862	1 279
1983–84	473	np	np	4 837	667	28	890	1 279
1984–85	471	np	np	4 909	693	0	943	1 303
1985–86	500	np	np	4 976	695	0	945	1 334
1986–87	499	np	np	4 939	666	0	971	1 387
1987–88	501	np	np	5 479	667	28	1 001	1 335
1988–89	555	np	np	5 470	750	28	1 000	1 333
1989–90	583	np	np	5 556	750	28	1 000	1 306
1990–91	500	np	np	5 665	694	28	1 027	1 305
1991–92	500	np	np	5 523	694	28	1 055	1 332
1992–93	500	np	np	5 444	667	28	1 055	1 361
1993–94	527	np	np	5 465	666	28	1 054	1 359
1994–95	472	np	np	5 160	666	0	1 248	1 332
1995–96	556	np	np	5 277	667	28	1 361	1 389
1996–97	528	np	np	5 753	695	28	1 390	1 390
1997–98	527	np	np	5 802	722	0	1 443	1 388
1998–99	556	np	np	5 888	694	28	1 444	1 417
1999–00	555	np	np	5 916	694	28	1 472	1 472
2000–01	851	np	np	5 646	709	28	1 674	1 504
2001–02	569	np	np	5 803	711	28	1 735	1 877
2002–03	232	np	np	5 978	750	25	2 068	1 920
2003–04	387	np	np	5 980	768	27	2 071	2 080
2004–05	411	np	np	6 469	739	26	1 947	2 195
2005–06	422	np	np	6 204	725	28	1 934	2 200
2006–07	436	np	np	6 768	681	29	2 042	2 233
2007–08	463	np	np	6 620	657	28	2 051	2 259
2008–09	470	np	np	6 265	654	37	2 132	2 311
2009–10	447	np	np	6 343	741	19	2 098	2 390
2010–11	511	np	np	6 510	1 058	60	2 029	2 359
2011–12	535	np	np	6 108	683	66	1 984	2 352
2012–13	510	np	np	6 102	699	16	2 072	2 342

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

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.5g Electricity usage—Australian electricity consumption, by industry—Northern Territory

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water			
gigawatt hours								
1974–75	56	np	np	np	28	28	421	112
1975–76	56	np	np	np	84	28	393	140
1976–77	56	np	np	np	84	28	421	140
1977–78	55	np	np	np	111	28	443	138
1978–79	55	np	np	np	83	55	471	166
1979–80	138	np	np	np	83	55	633	193
1980–81	140	np	np	np	84	56	671	224
1981–82	165	np	np	np	83	55	660	220
1982–83	137	np	np	np	82	55	741	220
1983–84	138	np	np	np	83	55	772	248
1984–85	140	np	np	np	112	56	782	279
1985–86	168	np	np	np	112	56	812	308
1986–87	166	np	np	np	111	28	885	304
1987–88	168	np	np	np	84	56	922	335
1988–89	252	np	np	np	140	28	950	335
1989–90	332	np	np	np	111	55	997	332
1990–91	335	np	np	np	140	28	1 061	335
1991–92	305	np	np	np	166	55	1 080	360
1992–93	304	np	np	np	138	28	1 132	359
1993–94	305	np	np	np	111	55	1 108	388
1994–95	335	np	np	np	140	28	1 173	419
1995–96	526	np	np	np	111	55	1 217	443
1996–97	581	np	np	np	111	55	1 273	443
1997–98	599	np	np	np	136	54	1 280	490
1998–99	528	np	np	np	139	56	1 418	445
1999–00	530	np	np	np	139	56	1 451	530
2000–01	425	np	np	np	152	91	1 669	546
2001–02	606	np	np	np	151	91	1 575	545
2002–03	132	np	np	np	182	67	1 349	639
2003–04	141	np	np	np	187	72	1 365	636
2004–05	235	np	np	np	179	70	1 337	574
2005–06	317	np	np	np	184	54	1 345	643
2006–07	689	np	np	np	223	59	1 458	661
2007–08	638	np	np	np	204	59	1 498	669
2008–09	306	np	np	np	259	7	1 628	723
2009–10	367	np	np	np	300	48	1 779	769
2010–11	355	np	np	np	256	27	1 875	576
2011–12	489	np	np	np	173	16	1 970	500
2012–13	559	np	np	np	324	1	1 953	478

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

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.5h Electricity usage—Australian electricity consumption, by industry—Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Iron and steel	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
<i>gigawatt hours</i>								
1974–75	4 583	4 500	6 972	13 084	10 361	694	11 695	22 112
1975–76	4 666	4 305	7 222	13 499	10 805	778	12 332	23 221
1976–77	4 917	4 250	7 972	14 083	12 083	1 000	13 417	25 333
1977–78	4 862	4 445	8 223	14 446	12 529	1 111	14 335	26 531
1978–79	4 917	4 861	8 695	15 140	13 862	945	15 334	28 196
1979–80	4 805	4 694	9 499	16 332	14 610	1 000	16 805	28 971
1980–81	5 000	4 833	10 555	16 666	15 527	1 167	18 110	30 498
1981–82	5 277	4 083	10 582	18 108	15 886	1 111	19 024	31 994
1982–83	5 416	3 472	11 165	17 720	15 470	1 389	19 581	32 329
1983–84	5 445	3 806	15 361	17 945	16 306	1 222	20 028	32 639
1984–85	5 861	3 916	18 304	18 637	18 498	1 250	21 192	33 302
1985–86	6 527	4 055	19 749	19 415	18 610	1 333	22 776	34 470
1986–87	6 777	4 083	21 193	20 193	19 277	1 194	24 360	35 553
1987–88	7 139	4 528	23 445	21 362	18 862	1 250	26 334	36 168
1988–89	8 361	4 527	25 776	22 637	20 471	1 250	28 137	36 637
1989–90	9 749	5 027	26 304	23 304	20 693	1 278	30 109	38 553
1990–91	9 888	4 777	26 581	23 553	19 887	1 389	31 497	39 246
1991–92	10 306	4 944	26 861	23 278	21 083	1 333	32 445	39 306
1992–93	10 582	5 138	27 748	24 026	20 887	1 278	33 358	40 635
1993–94	10 750	5 472	28 943	24 999	20 999	1 417	34 332	40 554
1994–95	11 472	5 722	27 860	25 860	22 055	1 500	36 527	42 166
1995–96	12 166	5 694	28 165	25 360	22 471	1 417	39 137	43 192
1996–97	12 304	5 832	29 440	25 718	22 580	1 444	40 855	44 771
1997–98	13 245	5 942	33 460	26 852	25 352	1 527	42 818	46 178
1998–99	14 085	6 084	35 864	27 447	27 169	1 611	44 504	47 227
1999–00	14 806	6 278	37 307	28 584	27 723	1 722	45 474	48 335
2000–01	16 434	6 250	45 686	24 912	29 715	2 199	47 798	51 647
2001–02	16 465	6 424	45 721	25 233	30 153	2 083	49 338	52 145
2002–03	14 619	3 288	35 417	26 760	28 488	2 257	57 535	53 756
2003–04	15 358	3 320	35 677	26 726	31 694	2 383	58 793	55 833
2004–05	15 715	3 874	37 183	25 859	30 150	2 457	58 274	55 138
2005–06	18 489	3 649	36 740	25 799	30 475	2 567	59 139	55 969
2006–07	18 974	3 869	38 438	27 305	31 174	2 695	63 009	57 690
2007–08	18 931	3 838	38 013	27 182	30 363	3 184	63 317	58 390
2008–09	19 912	3 584	40 085	26 780	32 026	2 903	64 485	59 757
2009–10	20 233	3 954	41 803	26 833	31 630	2 752	64 164	60 764
2010–11	23 180	4 441	38 494	26 824	30 146	2 658	64 773	62 103
2011–12	23 449	3 171	38 409	26 452	29 738	2 716	64 596	61 354
2012–13	25 278	3 144	37 036	25 762	27 510	2 634	67 302	60 409

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.6a Electricity usage—number of electricity customers, by state/territory—residential

At end of financial year	NSW ⁿ	VIC	QLD	SA ^o	WA ^p	TAS	NT ^q	ACT ⁿ	Australia
	<i>number</i>								
1975–76	1 638 763	1 238 954	590 368	438 811	314 455	135 391	^r 16 910	59 634	4 433 286
1976–77	1 670 130	1 267 648	609 173	453 501	337 193	139 132	^r 18 540	63 732	4 559 049
1977–78	1 704 606	1 295 514	627 874	464 066	362 365	142 729	20 168	66 152	4 683 474
1978–79	1 736 954	1 319 274	641 056	471 670	372 467	145 780	20 254	69 954	4 777 409
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

ⁿ From 1997–98, customer connections for ACT are included in the NSW figure.

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

^p 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.

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

^r Estimate only.

Note: Data are not readily available for missing years.

Source: esaa (2005) and esaa (2014).

Table E 3.6b Electricity usage—number of electricity customers, by state/territory—business

At end of financial year	NSW ⁿ	VIC	QLD	SA ^o	WA ^p	TAS	NT ^q	ACT ⁿ	Australia
	<i>number</i>								
1975–76	189 831	212 722	103 590	76 372	33 852	31 999	3 725	6 886	658 977
1976–77	193 256	214 602	105 777	78 171	35 165	32 574	3 842	7 293	670 680
1977–78	197 424	215 600	109 315	79 736	37 812	33 141	3 957	7 698	684 683
1978–79	201 962	218 117	120 791	81 439	40 458	33 945	3 772	7 877	708 361
1979–80	205 546	221 392	110 348	83 387	42 675	34 689	4 201	7 593	709 831
1980–81	210 005	225 018	117 797	84 719	41 490	35 300	4 458	7 829	726 616
1981–82	214 174	226 919	126 009	85 849	59 156	35 609	4 659	7 319	759 694
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	^s 283 882	^s 185 486	^s 94 471	^s 88 133	^s 38 572	^s 11 128		^s 1 092 779
1998–99	337 090	285 271	193 566	66 303	^s 98 655	27 821	^s 11 663		^s 1 020 369
1999–00	358 674	226 217	173 719	64 199	^s 102 271	28 653	^s 11 283		^s 965 016
2000–01	337 054	265 878	162 095	^s 66 672	^s 87 715	^s 40 563	10 762		^s 970 739
2001–02	319 964	268 453	164 248	^s 67 743	^s 92 013	27 662	11 093		^s 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

ⁿ From 1997–98, customer connections for ACT are included in the NSW figure.^o The method of compiling South Australian customer numbers changed from 2003–04 and is not comparable to earlier years.^p 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.^q The method of compiling Northern Territory customer numbers changed from 2005–06 and is not comparable to earlier years.^s The number of “other” electricity customers is not separately available and has been included in estimates of the number of business customers.

Note: Data are not readily available for missing years.

Source: esaa (2005) and esaa (2014).

Table E 3.6c Electricity usage—number of electricity customers, by state/territory—other (including public lighting and traction)

At end of financial year	NSW ⁿ	VIC	QLD	SA	WA	TAS	NT	ACT ⁿ	Australia
	<i>number</i>								
1975–76	661	377	131	145	190	117	3	660	2 284
1976–77	647	1 324	132	138	213	136	3	712	3 305
1977–78	683	1 424	132	145	237	135	0	755	3 511
1978–79	680	1 522	131	143	261	136	0	777	3 650
1979–80	877	1 582	132	133	281	141	0	823	3 969
1980–81	844	1 667	133	133	288	157	0	776	3 998
1981–82	701	1 732	133	134	169	176	0	792	3 837
1982–83	667	1 782	133	141	201	176	0	801	3 901
1983–84	729	1 836	133	145	179	184	0	986	4 192
1984–85	819	1 858	133	167	146	189	0	819	4 131
1985–86	732	1 926	133	165	144	205	0	821	4 126
1986–87	755	2 071	133	168	146	199	0	838	4 310
1987–88	749	2 073	133	172	146	209	5	867	4 354
1988–89	15 631	2 037	133	173	146	208	5	871	19 204
1989–90	16 723	2 009	133	172	148	208	5	912	20 310
1990–91	29 815	1 870	133	173	148	212	5	924	33 280
1991–92	29 300	2 007	133	166	150	214	5	950	32 925
1992–93	29 637	2 099	133	790	146	231	17	1 002	34 055
1993–94	25 461	14 121	132	1 496	151	207	33	1 005	42 606
1994–95									
1995–96									
1996–97									
1997–98	^s	^s	^s	^s	^s	^s	^s		^s
1998–99	131 371	68 132	^s	31 197	^s	12 226	^s		^s
1999–00	84 338	58 399	29 356	29 307	^s	12 322	^s		^s
2000–01	129 084	55 843	32 496	^s	^s	^s	6 657		^s
2001–02	132 889	57 418	32 272	^s	^s	12 502	6 939		^s
2002–03									
2003–04									
2004–05									
2005–06									
2006–07									
2007–08									
2008–09									
2009–10									
2010–11									
2011–12									
2012–13									

ⁿ From 1997–98, customer connections for ACT are included in the NSW figure

^s The number of other electricity customers is not separately available and has been included in estimates of the number of business customers.

Note: Data are not readily available for missing years.

Source: esaa (2005) and esaa (2014).

Table E 3.6d Electricity usage—number of electricity customers, by state/territory—total

At end of financial year	NSW ⁿ	VIC	QLD	SA ^o	WA ^p	TAS	NT ^q	ACT ⁿ	Australia
	number								
1975–76	1 829 255	1 452 053	694 089	515 328	348 497	167 507	20 638	67 180	5 094 547
1976–77	1 864 033	1 483 574	715 082	531 810	372 571	171 842	22 385	71 737	5 233 034
1977–78	1 902 713	1 512 538	737 321	543 947	400 414	176 005	24 125	74 605	5 371 668
1978–79	1 939 596	1 538 913	761 978	553 252	413 186	179 861	24 026	78 608	5 489 420
1979–80	1 984 905	1 567 229	797 466	562 525	425 456	183 607	25 131	78 945	5 625 264
1980–81	2 038 231	1 595 187	833 501	570 870	439 518	187 072	25 995	81 123	5 771 497
1981–82	2 086 303	1 619 017	873 714	578 599	459 580	189 727	28 765	83 138	5 918 843
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

ⁿ From 1997–98, customer connections for ACT are included in the NSW figure^o The method of compiling South Australian customer numbers changed from 2003–04 and is not comparable to earlier years.^p 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.^q The method of compiling Northern Territory customer numbers changed from 2005–06 and is not comparable to earlier years.

Note: Data are not readily available for missing years.

Source: esaa (2005) and esaa (2014).

Table E 3.7 Electricity usage—price index for residential electricity supply, by capital city

Average over financial year ending	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
<i>base of each index: 2011–12 = 100</i>								
Jun-1981	14.5	18.3	18.9	14.1	24.8	14.6	22.7	14.9
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

Source: ABS (2014d).

Table E 3.8a Gas usage—Australian gas consumption, by industry—New South Wales

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Petroleum, coal and chemicals	Basic non-ferrous metals	Other manu- facturing	Electricity generation	Other electricity, gas and water			
	gigalitres							
1974–75	0	np	np	196	0	39	68	157
1975–76	0	np	np	188	0	39	68	146
1976–77	0	np	np	225	0	251	68	146
1977–78	0	np	np	454	0	311	81	144
1978–79	0	np	np	689	0	295	99	144
1979–80	0	np	np	1 138	0	292	112	141
1980–81	0	np	np	1 441	0	292	123	146
1981–82	0	np	np	1 572	23	313	159	157
1982–83	0	np	np	1 655	31	319	172	170
1983–84	0	np	np	1 804	31	316	204	178
1984–85	0	np	np	1 820	42	303	209	188
1985–86	0	np	np	1 958	47	266	222	214
1986–87	0	np	np	2 084	44	292	245	222
1987–88	0	np	np	1 893	47	245	251	235
1988–89	0	np	np	1 906	42	219	266	245
1989–90	0	np	np	1 987	44	209	287	274
1990–91	0	np	np	1 854	44	172	303	298
1991–92	0	np	np	1 820	44	157	324	319
1992–93	0	np	np	1 869	44	123	342	358
1993–94	0	np	np	1 919	44	104	334	368
1994–95	0	np	np	1 971	44	91	366	397
1995–96	0	np	np	1 888	136	78	399	426
1996–97	0	np	np	2 282	274	81	415	454
1997–98	0	np	np	2 245	292	70	454	483
1998–99	0	np	np	2 230	397	63	473	535
1999–00	0	np	np	2 279	420	65	499	546
2000–01	31	np	np	2 491	436	97	277	554
2001–02	34	np	np	2 397	457	99	282	569
2002–03	47	np	np	2 410	493	102	315	548
2003–04	23	np	np	2 392	520	104	298	542
2004–05	30	np	np	2 237	540	112	304	541
2005–06	40	np	np	2 167	556	110	302	548
2006–07	44	np	np	2 131	415	70	297	555
2007–08	24	np	np	2 132	381	76	282	560
2008–09	14	np	np	2 094	658	84	37	585
2009–10	4	np	np	2 217	1 133	84	491	610
2010–11	0	np	np	2 239	924	78	299	634
2011–12	1	np	np	2 013	1 149	105	13	655
2012–13	0	np	np	2 103	1 068	67	310	672

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.8b Gas usage—Australian gas consumption, by industry—Victoria

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Petroleum, coal and chemicals	Basic non-ferrous metals	Other manu- facturing	Electricity generation	Other electricity, gas and water			
	gigalitres							
1974–75	379	np	np	1 204	np	np	353	588
1975–76	446	np	np	1 446	np	np	405	624
1976–77	464	np	np	1 649	np	np	515	763
1977–78	428	np	np	1 825	np	np	539	822
1978–79	464	np	np	1 938	np	np	763	910
1979–80	477	np	np	2 147	np	np	1 039	954
1980–81	430	np	np	2 291	np	np	1 747	1 044
1981–82	412	np	np	2 330	np	np	2 245	1 186
1982–83	528	np	np	2 240	np	np	1 920	1 219
1983–84	624	np	np	2 271	np	np	2 124	1 281
1984–85	552	np	np	2 332	np	np	1 572	1 343
1985–86	482	np	np	2 338	np	np	1 745	1 394
1986–87	492	np	np	2 394	np	np	1 322	1 508
1987–88	564	np	np	2 466	np	np	1 204	1 423
1988–89	539	np	np	2 534	np	np	1 410	1 464
1989–90	564	np	np	2 485	np	np	1 951	1 701
1990–91	521	np	np	2 299	np	np	1 459	1 691
1991–92	577	np	np	2 265	np	np	1 580	1 760
1992–93	580	np	np	2 325	np	np	1 639	1 812
1993–94	490	np	np	2 338	np	np	1 490	1 750
1994–95	523	np	np	2 446	np	np	1 832	1 918
1995–96	590	np	np	2 371	np	np	1 760	2 049
1996–97	603	np	np	2 392	np	np	1 119	2 046
1997–98	652	np	np	2 405	np	np	1 093	2 088
1998–99	459	np	np	2 188	np	np	1 126	2 000
1999–00	567	np	np	2 314	np	np	1 165	2 075
2000–01	552	np	np	2 263	np	np	1 410	2 137
2001–02	534	np	np	2 237	np	np	1 521	2 193
2002–03	475	np	np	2 202	np	np	1 523	2 205
2003–04	554	np	np	2 255	np	np	1 687	2 215
2004–05	470	np	np	2 250	np	np	1 750	2 234
2005–06	485	np	np	2 183	np	np	1 704	2 318
2006–07	489	np	np	2 129	np	np	1 734	2 352
2007–08	493	np	np	2 188	np	np	1 895	2 389
2008–09	627	np	np	2 261	np	np	1 841	2 462
2009–10	534	np	np	2 225	np	np	1 686	2 517
2010–11	542	np	np	2 228	np	np	1 547	2 584
2011–12	582	np	np	2 310	np	np	1 483	2 602
2012–13	592	np	np	2 282	np	np	1 851	2 677

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.8c Gas usage—Australian gas consumption, by industry—Queensland

Financial year	Mining	Manufacturing		Electricity, gas and water		Other industries	Household consumption	
	Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water			
gigalitres								
1974–75	0	np	np	228	np	np	35	28
1975–76	0	np	np	205	np	np	35	30
1976–77	0	np	np	205	np	np	38	28
1977–78	0	np	np	243	np	np	38	30
1978–79	0	np	np	246	np	np	38	30
1979–80	0	np	np	284	np	np	35	33
1980–81	0	np	np	304	np	np	33	35
1981–82	5	np	np	319	np	np	35	35
1982–83	10	np	np	372	np	np	41	35
1983–84	15	np	np	382	np	np	46	33
1984–85	25	np	np	370	np	np	84	33
1985–86	35	np	np	370	np	np	89	35
1986–87	38	np	np	380	np	np	81	35
1987–88	56	np	np	453	np	np	84	38
1988–89	51	np	np	405	np	np	84	38
1989–90	46	np	np	418	np	np	89	41
1990–91	43	np	np	797	np	np	91	41
1991–92	73	np	np	820	np	np	91	41
1992–93	94	np	np	805	np	np	94	41
1993–94	122	np	np	904	np	np	89	43
1994–95	124	np	np	914	np	np	84	43
1995–96	122	np	np	939	np	np	114	33
1996–97	127	np	np	924	np	np	111	28
1997–98	132	np	np	962	np	np	142	35
1998–99	144	np	np	1 101	np	np	349	35
1999–00	142	np	np	1 134	np	np	554	38
2000–01	253	np	np	1 167	np	np	780	38
2001–02	266	np	np	1 165	np	np	818	38
2002–03	215	np	np	1 523	np	np	607	36
2003–04	229	np	np	1 528	np	np	677	37
2004–05	247	np	np	1 551	np	np	610	62
2005–06	266	np	np	1 588	np	np	581	64
2006–07	284	np	np	1 621	np	np	2 228	66
2007–08	358	np	np	1 731	np	np	2 347	68
2008–09	441	np	np	1 812	np	np	2 611	69
2009–10	413	np	np	1 831	np	np	2 656	70
2010–11	449	np	np	1 841	np	np	2 532	72
2011–12	483	np	np	1 851	np	np	3 715	73
2012–13	484	np	np	2 091	np	np	3 300	77

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.8d Gas usage—Australian gas consumption, by industry—South Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water			
gigalitres								
1974–75	57	np	np	253	np	np	898	107
1975–76	63	np	np	285	np	np	1 042	112
1976–77	60	np	np	389	np	np	1 332	128
1977–78	78	np	np	386	np	np	1 457	131
1978–79	86	np	np	381	np	np	1 520	141
1979–80	136	np	np	465	np	np	1 564	138
1980–81	157	np	np	496	np	np	1 640	138
1981–82	222	np	np	517	np	np	1 833	149
1982–83	240	np	np	512	np	np	1 843	154
1983–84	345	np	np	470	np	np	1 812	151
1984–85	554	np	np	543	np	np	1 872	159
1985–86	561	np	np	585	np	np	1 601	159
1986–87	593	np	np	525	np	np	1 535	170
1987–88	624	np	np	585	np	np	1 499	159
1988–89	577	np	np	561	np	np	1 606	170
1989–90	598	np	np	621	np	np	1 480	175
1990–91	567	np	np	621	np	np	1 159	178
1991–92	546	np	np	608	np	np	1 319	185
1992–93	538	np	np	574	np	np	1 397	191
1993–94	525	np	np	700	np	np	1 527	178
1994–95	538	np	np	760	np	np	1 389	191
1995–96	525	np	np	786	np	np	1 094	191
1996–97	530	np	np	791	np	np	1 081	196
1997–98	619	np	np	752	np	np	1 222	198
1998–99	621	np	np	715	np	np	1 608	201
1999–00	582	np	np	728	np	np	1 616	204
2000–01	679	np	np	616	np	np	1 671	206
2001–02	676	np	np	642	np	np	1 687	211
2002–03	764	np	np	704	np	np	1 613	228
2003–04	747	np	np	725	np	np	1 631	241
2004–05	661	np	np	785	np	np	1 697	267
2005–06	569	np	np	800	np	np	1 489	280
2006–07	443	np	np	787	np	np	2 058	278
2007–08	418	np	np	817	np	np	2 283	281
2008–09	478	np	np	665	np	np	2 094	287
2009–10	476	np	np	729	np	np	1 667	278
2010–11	445	np	np	721	np	np	1 815	278
2011–12	463	np	np	660	np	np	1 833	305
2012–13	446	np	np	622	np	np	1 926	309

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.8e Gas usage—Australian gas consumption, by industry—Western Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water			
	gigalitres							
1974–75	17	np	np	672	0	14	24	31
1975–76	17	np	np	682	0	14	22	34
1976–77	14	np	np	689	0	14	27	48
1977–78	14	np	np	655	2	14	22	48
1978–79	14	np	np	667	2	10	29	55
1979–80	12	np	np	689	2	12	31	53
1980–81	14	np	np	694	2	12	34	55
1981–82	19	np	np	646	2	12	39	53
1982–83	27	np	np	778	2	12	48	58
1983–84	24	np	np	757	17	10	65	60
1984–85	133	np	np	1 364	154	10	55	67
1985–86	142	np	np	1 622	805	14	123	75
1986–87	154	np	np	1 831	1 031	14	89	84
1987–88	255	np	np	1 954	1 253	29	104	94
1988–89	398	np	np	2 116	1 067	29	108	104
1989–90	829	np	np	2 227	1 111	14	113	125
1990–91	988	np	np	2 265	858	14	111	135
1991–92	1 077	np	np	2 306	896	14	120	142
1992–93	1 354	np	np	2 424	904	17	142	159
1993–94	1 480	np	np	2 600	1 164	22	181	173
1994–95	1 723	np	np	2 655	1 501	22	212	181
1995–96	1 993	np	np	2 614	1 301	22	227	190
1996–97	2 046	np	np	2 677	1 699	22	231	198
1997–98	2 207	np	np	2 718	2 058	22	243	205
1998–99	2 352	np	np	2 839	2 043	22	270	207
1999–00	2 458	np	np	2 913	2 031	24	284	207
2000–01	1 624	np	np	3 545	2 443	24	284	212
2001–02	1 680	np	np	3 627	2 451	24	316	219
2002–03	1 628	np	np	4 318	2 338	32	321	217
2003–04	1 817	np	np	4 473	2 473	33	320	210
2004–05	2 002	np	np	3 916	2 474	35	338	219
2005–06	2 113	np	np	3 978	2 482	38	348	218
2006–07	2 224	np	np	4 343	2 726	8	362	227
2007–08	2 026	np	np	4 117	3 088	6	367	233
2008–09	2 151	np	np	3 827	4 926	5	373	234
2009–10	2 153	np	np	3 987	4 830	4	381	236
2010–11	2 279	np	np	3 891	5 298	3	401	241
2011–12	2 339	np	np	3 989	5 315	2	414	243
2012–13	2 312	np	np	4 198	5 258	2	422	248

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.8f Gas usage—Australian gas consumption, by industry—Tasmania

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water			
	gigalitres							
1974–75	0	np	np	0	np	0	3	3
1975–76	0	np	np	0	np	0	3	3
1976–77	0	np	np	0	np	0	3	3
1977–78	0	np	np	0	np	0	0	3
1978–79	0	np	np	0	np	0	0	3
1979–80	0	np	np	0	np	0	0	3
1980–81	0	np	np	0	np	0	0	3
1981–82	0	np	np	0	np	0	0	3
1982–83	0	np	np	0	np	0	0	3
1983–84	0	np	np	0	np	0	0	3
1984–85	0	np	np	0	np	0	0	3
1985–86	0	np	np	0	np	0	0	3
1986–87	0	np	np	0	np	0	0	3
1987–88	0	np	np	0	np	0	0	3
1988–89	0	np	np	0	np	0	0	3
1989–90	0	np	np	0	np	0	0	3
1990–91	0	np	np	0	np	0	0	3
1991–92	0	np	np	0	np	0	0	3
1992–93	0	np	np	0	np	0	0	3
1993–94	0	np	np	0	np	0	0	3
1994–95	0	np	np	0	np	0	0	3
1995–96	0	np	np	0	np	0	0	3
1996–97	0	np	np	0	np	0	0	3
1997–98	0	np	np	0	np	0	0	3
1998–99	0	np	np	0	np	0	0	3
1999–00	0	np	np	0	np	0	0	3
2000–01	0	np	np	0	np	0	0	3
2001–02	0	np	np	0	np	0	0	3
2002–03	0	np	np	16	np	112	0	3
2003–04	0	np	np	16	np	195	0	3
2004–05	0	np	np	28	np	230	0	3
2005–06	0	np	np	24	np	269	0	3
2006–07	0	np	np	32	np	303	1	3
2007–08	0	np	np	33	np	390	1	3
2008–09	0	np	np	62	np	227	4	3
2009–10	0	np	np	52	np	305	4	3
2010–11	0	np	np	42	np	387	4	3
2011–12	0	np	np	45	np	397	1	3
2012–13	0	np	np	45	np	438	2	3

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.8g Gas usage—Australian gas consumption, by industry—Northern Territory

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water			
gigalitres								
1974–75	0	np	np	0	0	0	0	0
1975–76	0	np	np	0	0	0	0	0
1976–77	0	np	np	0	0	0	0	0
1977–78	0	np	np	0	0	0	0	0
1978–79	0	np	np	0	0	0	0	0
1979–80	0	np	np	0	0	0	0	0
1980–81	0	np	np	0	0	0	0	0
1981–82	0	np	np	0	0	0	0	0
1982–83	0	np	np	0	0	0	0	0
1983–84	0	np	np	0	2	0	0	0
1984–85	2	np	np	0	25	0	- 2	0
1985–86	7	np	np	0	25	0	0	0
1986–87	12	np	np	0	114	0	0	0
1987–88	10	np	np	0	264	0	5	0
1988–89	2	np	np	0	264	0	5	0
1989–90	2	np	np	0	304	0	2	0
1990–91	2	np	np	0	321	0	2	0
1991–92	2	np	np	0	333	0	0	0
1992–93	0	np	np	0	336	0	5	0
1993–94	2	np	np	0	333	0	2	0
1994–95	2	np	np	0	363	0	5	0
1995–96	2	np	np	0	420	0	2	0
1996–97	2	np	np	2	435	0	7	0
1997–98	5	np	np	2	447	0	10	0
1998–99	5	np	np	2	479	0	12	0
1999–00	5	np	np	2	521	0	12	0
2000–01	5	np	np	2	528	0	5	0
2001–02	5	np	np	2	541	0	5	0
2002–03	4	np	np	1	336	0	8	0
2003–04	18	np	np	1	338	0	6	0
2004–05	18	np	np	1	355	0	6	0
2005–06	161	np	np	1	290	0	6	0
2006–07	489	np	np	1	348	0	6	0
2007–08	456	np	np	1	307	0	7	0
2008–09	519	np	np	1	461	0	7	0
2009–10	512	np	np	1	627	0	8	0
2010–11	392	np	np	1	612	0	8	0
2011–12	411	np	np	1	618	0	8	0
2012–13	479	np	np	1	621	0	8	0

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.8h Gas usage—Australian gas consumption, by industry—Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water			
gigalitres								
1974–75	453	416	617	1 519	871	259	306	914
1975–76	525	460	614	1 731	1 023	259	346	949
1976–77	538	594	650	1 913	1 346	480	422	1 116
1977–78	521	764	655	2 145	1 447	548	468	1 178
1978–79	565	871	688	2 363	1 691	533	532	1 283
1979–80	625	1 132	721	2 869	1 937	571	580	1 322
1980–81	602	1 226	759	3 241	2 704	546	633	1 422
1981–82	659	1 366	774	3 243	3 324	589	750	1 583
1982–83	805	1 600	924	3 033	2 988	607	794	1 639
1983–84	1 008	1 592	881	3 211	3 151	607	869	1 706
1984–85	1 265	1 523	1 506	3 400	2 818	622	882	1 794
1985–86	1 228	1 551	1 655	3 665	3 412	584	940	1 881
1986–87	1 289	1 526	1 770	3 918	3 278	579	912	2 022
1987–88	1 509	1 671	1 808	3 873	3 550	515	919	1 952
1988–89	1 566	1 615	1 947	3 959	3 646	485	970	2 024
1989–90	2 039	1 775	2 059	3 903	4 093	475	1 038	2 319
1990–91	2 121	1 803	2 435	3 599	3 080	414	1 042	2 344
1991–92	2 276	1 754	2 539	3 527	3 351	411	1 116	2 450
1992–93	2 566	1 765	2 646	3 588	3 463	386	1 193	2 563
1993–94	2 618	1 881	2 790	3 788	3 715	371	1 206	2 515
1994–95	2 910	1 960	2 846	3 940	4 250	363	1 296	2 732
1995–96	3 232	1 973	2 828	3 797	3 847	343	1 364	2 892
1996–97	3 308	2 458	2 861	3 749	3 760	343	1 372	2 925
1997–98	3 615	2 465	2 879	3 740	4 238	335	1 481	3 012
1998–99	3 581	2 491	2 945	3 640	4 989	317	1 536	2 982
1999–00	3 754	2 643	2 986	3 743	5 251	330	1 612	3 072
2000–01	3 144	2 978	2 976	4 130	6 137	404	1 415	3 150
2001–02	3 194	2 902	2 999	4 169	6 276	444	1 478	3 234
2002–03	3 132	3 649	3 081	4 444	5 711	469	1 553	3 238
2003–04	3 389	3 737	3 200	4 453	6 137	524	1 551	3 248
2004–05	3 428	3 556	3 472	3 741	6 355	404	1 611	3 326
2005–06	3 634	3 611	3 564	3 566	6 068	404	1 601	3 431
2006–07	3 973	3 429	3 685	3 929	8 504	329	1 616	3 482
2007–08	3 774	3 668	3 543	3 808	9 333	336	1 646	3 534
2008–09	4 231	3 677	3 319	3 726	11 517	341	1 607	3 639
2009–10	4 092	4 001	3 107	3 935	11 531	335	1 681	3 713
2010–11	4 107	3 779	3 155	4 028	11 906	346	1 701	3 813
2011–12	4 279	3 854	3 428	3 588	13 065	349	1 711	3 883
2012–13	4 313	4 143	3 716	3 484	13 139	335	1 799	3 986

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.9 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
<i>base of each index: 2011–12 = 100</i>								
Jun-1990	36.0	39.7	36.6	35.4	34.8	45.2	38.8	31.2
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

Source: ABS (2014d).

Table E 3.10a Black coal usage—Australian black coal consumption, by industry—New South Wales

Financial year	Manufacturing					Electricity generation	Coastal bunkers (water transport)	Other industries	
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals				Other manufacturing
1974–75	242	0	np	np	np	8 515	9 593	320	
1975–76	251	0	np	np	np	8 072	9 239	343	
1976–77	246	0	np	np	np	7 271	11 615	311	
1977–78	231	0	np	np	np	7 454	12 450	287	
1978–79	220	0	np	np	np	7 245	12 890	262	
1979–80	215	0	np	np	np	6 909	14 642	231	
1980–81	205	0	np	np	np	7 202	15 239	211	
1981–82	205	0	np	np	np	6 577	14 664	173	
1982–83	188	0	np	np	np	5 171	15 489	163	
1983–84	217	0	np	np	np	4 956	16 255	158	
1984–85	208	0	np	np	np	5 175	16 942	155	
1985–86	217	0	np	np	np	5 002	18 195	148	
1986–87	205	0	np	np	np	5 149	18 765	148	
1987–88	213	0	np	np	np	5 313	19 205	139	
1988–89	205	0	np	np	np	5 993	20 002	135	
1989–90	200	0	np	np	np	5 486	20 516	126	
1990–91	243	0	np	np	np	5 397	20 180	108	
1991–92	229	0	np	np	np	5 487	20 501	79	
1992–93	181	0	np	np	np	5 298	21 186	67	
1993–94	185	0	np	np	np	5 558	21 683	54	
1994–95	163	0	np	np	np	5 442	22 245	42	
1995–96	166	0	np	np	np	4 950	23 305	33	
1996–97	159	0	np	np	np	5 188	23 669	29	
1997–98	151	0	np	np	np	5 197	24 016	21	
1998–99	144	0	np	np	np	5 168	24 517	21	
1999–00	142	0	np	np	np	4 590	24 808	17	
2000–01	145	0	np	np	np	3 965	26 466	25	
2001–02	146	0	np	np	np	4 030	26 649	25	
2002–03	161	0	np	np	np	4 562	27 423	24	
2003–04	162	0	np	np	np	4 930	28 532	26	
2004–05	167	0	np	np	np	5 008	28 248	26	
2005–06	174	0	np	np	np	4 947	28 930	11	
2006–07	179	0	np	np	np	4 954	29 093	8	
2007–08	199	0	np	np	np	5 044	31 478	3	
2008–09	188	0	np	np	np	3 751	30 570	0	
2009–10	182	0	np	np	np	4 397	28 278	0	
2010–11	177	0	np	np	np	4 773	26 602	0	
2011–12	124	0	np	np	np	3 787	25 617	0	
2012–13	119	0	np	np	np	3 605	24 277	0	

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.10b Black coal usage—Australian black coal consumption, by industry—Victoria

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
1974–75	0	0	np	np	np	3	0	0	0
1975–76	0	0	np	np	np	0	0	0	3
1976–77	0	0	np	np	np	4	0	0	0
1977–78	0	0	np	np	np	0	0	0	2
1978–79	0	0	np	np	np	0	0	0	2
1979–80	0	0	np	np	np	4	0	0	0
1980–81	0	0	np	np	np	4	0	0	0
1981–82	0	0	np	np	np	5	0	0	0
1982–83	0	0	np	np	np	3	0	0	0
1983–84	0	0	np	np	np	4	0	0	0
1984–85	0	0	np	np	np	4	0	0	0
1985–86	0	0	np	np	np	4	0	0	0
1986–87	0	0	np	np	np	3	0	0	0
1987–88	0	0	np	np	np	9	0	0	0
1988–89	0	0	np	np	np	2	0	0	0
1989–90	0	0	np	np	np	2	0	0	0
1990–91	0	0	np	np	np	0	0	0	0
1991–92	0	0	np	np	np	0	0	0	0
1992–93	0	0	np	np	np	0	0	0	0
1993–94	0	0	np	np	np	0	0	0	0
1994–95	0	0	np	np	np	0	0	0	0
1995–96	0	0	np	np	np	0	0	0	0
1996–97	0	0	np	np	np	0	0	0	0
1997–98	0	0	np	np	np	0	0	0	0
1998–99	0	0	np	np	np	0	0	0	0
1999–00	0	0	np	np	np	0	0	0	0
2000–01	0	0	np	np	np	0	0	0	0
2001–02	0	0	np	np	np	0	0	0	0
2002–03	0	0	np	np	np	0	0	0	0
2003–04	0	0	np	np	np	1	0	0	0
2004–05	0	0	np	np	np	2	0	0	0
2005–06	0	0	np	np	np	2	0	0	0
2006–07	0	0	np	np	np	2	0	0	0
2007–08	0	0	np	np	np	2	0	0	0
2008–09	0	0	np	np	np	2	0	0	0
2009–10	0	0	np	np	np	2	0	0	0
2010–11	0	0	np	np	np	2	0	0	0
2011–12	0	0	np	np	np	2	0	0	0
2012–13	0	0	np	np	np	2	0	0	0

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.10c Black coal usage—Australian black coal consumption, by industry—Queensland

Financial year	Manufacturing					Electricity generation	Coastal bunkers (water transport)	Other industries	
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals				Other manufacturing
kilotonnes									
1974–75	54	54	np	np	np	1 379	3 732	0	37
1975–76	50	62	np	np	np	1 409	3 789	0	33
1976–77	46	62	np	np	np	1 538	4 111	0	33
1977–78	32	56	np	np	np	1 404	4 539	0	36
1978–79	31	55	np	np	np	1 528	4 537	0	31
1979–80	51	59	np	np	np	1 606	4 899	0	39
1980–81	79	59	np	np	np	1 601	5 305	0	39
1981–82	100	73	np	np	np	1 606	5 775	0	42
1982–83	100	77	np	np	np	1 641	6 620	23	42
1983–84	114	85	np	np	np	1 648	7 822	151	45
1984–85	112	84	np	np	np	1 688	8 368	136	44
1985–86	135	93	np	np	np	1 836	8 750	140	47
1986–87	151	98	np	np	np	2 004	9 497	169	44
1987–88	147	107	np	np	np	1 958	9 824	156	40
1988–89	156	89	np	np	np	2 137	10 295	174	40
1989–90	165	101	np	np	np	2 064	11 042	160	42
1990–91	179	97	np	np	np	2 008	11 379	171	40
1991–92	179	101	np	np	np	2 119	12 008	182	38
1992–93	195	86	np	np	np	2 112	12 615	186	27
1993–94	235	97	np	np	np	2 128	13 041	180	37
1994–95	255	96	np	np	np	2 165	13 928	182	32
1995–96	319	97	np	np	np	2 075	14 898	183	30
1996–97	313	134	np	np	np	2 178	15 226	197	29
1997–98	292	119	np	np	np	2 024	17 261	193	21
1998–99	299	60	np	np	np	2 140	17 842	191	16
1999–00	251	56	np	np	np	2 058	16 499	192	1 242
2000–01	165	64	np	np	np	2 191	19 047	225	- 37
2001–02	142	64	np	np	np	2 183	20 413	230	- 41
2002–03	241	129	np	np	np	1 789	19 340	217	26
2003–04	233	130	np	np	np	1 826	21 218	252	26
2004–05	225	142	np	np	np	2 012	23 080	347	26
2005–06	222	143	np	np	np	1 973	23 593	299	25
2006–07	226	145	np	np	np	2 078	24 372	321	25
2007–08	229	145	np	np	np	2 134	21 280	347	24
2008–09	227	0	np	np	np	2 102	24 269	308	22
2009–10	194	0	np	np	np	2 048	20 895	320	19
2010–11	224	0	np	np	np	1 697	19 133	274	14
2011–12	195	0	np	np	np	1 900	20 642	315	9
2012–13	218	0	np	np	np	2 018	20 250	307	5

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.10d Black coal usage—Australian black coal consumption, by industry—South Australia

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
1974–75	4	0	np	np	np	1 135	0	0	8
1975–76	0	0	np	np	np	1 065	0	0	0
1976–77	0	0	np	np	np	1 095	0	0	4
1977–78	0	0	np	np	np	1 006	0	0	5
1978–79	0	0	np	np	np	1 272	0	0	0
1979–80	0	0	np	np	np	1 211	0	0	0
1980–81	0	0	np	np	np	1 431	0	0	- 4
1981–82	0	0	np	np	np	1 154	0	0	0
1982–83	0	0	np	np	np	935	0	0	0
1983–84	0	0	np	np	np	1 193	0	0	0
1984–85	0	0	np	np	np	1 317	0	0	0
1985–86	0	0	np	np	np	1 443	0	0	0
1986–87	0	0	np	np	np	1 468	0	0	0
1987–88	0	0	np	np	np	1 551	0	0	- 5
1988–89	0	0	np	np	np	1 560	0	0	- 5
1989–90	0	0	np	np	np	1 548	0	0	- 5
1990–91	0	0	np	np	np	1 419	0	0	0
1991–92	0	0	np	np	np	1 395	0	0	0
1992–93	0	0	np	np	np	1 369	0	0	0
1993–94	0	0	np	np	np	1 295	0	0	- 5
1994–95	0	0	np	np	np	1 302	0	0	0
1995–96	0	0	np	np	np	1 307	0	0	0
1996–97	0	0	np	np	np	1 315	0	0	0
1997–98	0	0	np	np	np	1 355	0	0	0
1998–99	0	0	np	np	np	1 375	0	0	0
1999–00	0	0	np	np	np	928	0	0	0
2000–01	0	0	np	np	np	1 074	0	0	5
2001–02	0	0	np	np	np	750	0	0	0
2002–03	0	0	np	np	np	833	0	0	0
2003–04	0	0	np	np	np	840	0	0	0
2004–05	0	0	np	np	np	897	0	0	0
2005–06	0	0	np	np	np	904	0	0	0
2006–07	0	0	np	np	np	897	0	0	0
2007–08	0	0	np	np	np	880	0	0	0
2008–09	0	0	np	np	np	825	0	0	0
2009–10	0	0	np	np	np	908	0	0	0
2010–11	0	0	np	np	np	890	0	0	0
2011–12	0	0	np	np	np	743	0	0	0
2012–13	0	0	np	np	np	717	0	0	0

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.10e Black coal usage—Australian black coal consumption, by industry—Western Australia

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non- ferrous metals	Other manu- facturing			
kilotonnes									
1974–75	0	0	np	np	np	76	1 708	0	46
1975–76	0	0	np	np	np	137	1 971	0	46
1976–77	0	0	np	np	np	157	2 094	0	35
1977–78	0	0	np	np	np	167	2 136	0	36
1978–79	0	0	np	np	np	177	2 188	0	46
1979–80	0	0	np	np	np	152	2 721	0	46
1980–81	0	0	np	np	np	208	2 914	0	46
1981–82	0	0	np	np	np	223	2 983	0	56
1982–83	0	0	np	np	np	269	3 136	0	35
1983–84	0	0	np	np	np	324	3 236	0	41
1984–85	0	0	np	np	np	755	3 365	0	56
1985–86	0	0	np	np	np	786	2 388	0	56
1986–87	0	0	np	np	np	608	2 331	0	132
1987–88	0	0	np	np	np	562	2 361	0	172
1988–89	0	0	np	np	np	578	3 233	0	182
1989–90	0	0	np	np	np	826	3 625	0	299
1990–91	0	0	np	np	np	856	4 398	0	284
1991–92	0	0	np	np	np	922	4 408	0	309
1992–93	0	0	np	np	np	1 033	4 461	0	304
1993–94	0	0	np	np	np	993	4 325	0	284
1994–95	0	0	np	np	np	988	3 977	0	375
1995–96	0	0	np	np	np	1 037	4 746	0	395
1996–97	0	0	np	np	np	983	4 576	0	405
1997–98	0	0	np	np	np	1 004	4 391	0	330
1998–99	0	0	np	np	np	1 013	4 312	0	329
1999–00	0	0	np	np	np	998	4 737	0	345
2000–01	0	0	np	np	np	1 061	4 629	0	325
2001–02	0	0	np	np	np	1 082	4 753	0	325
2002–03	0	0	np	np	np	1 382	5 393	0	0
2003–04	0	0	np	np	np	1 414	5 432	0	0
2004–05	0	0	np	np	np	1 335	5 315	0	0
2005–06	0	0	np	np	np	1 360	5 134	0	0
2006–07	0	0	np	np	np	1 410	5 103	0	0
2007–08	0	0	np	np	np	1 451	4 563	0	0
2008–09	0	0	np	np	np	1 619	5 017	0	0
2009–10	0	0	np	np	np	1 197	4 883	0	0
2010–11	0	0	np	np	np	1 208	5 135	0	283
2011–12	0	0	np	np	np	1 220	4 879	0	246
2012–13	0	0	np	np	np	1 484	5 397	0	157

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.10f Black coal usage—Australian black coal consumption, by industry—Tasmania

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
1974–75	4	0	np	np	np	88	0	0	18
1975–76	4	0	np	np	np	108	0	0	17
1976–77	4	0	np	np	np	165	0	0	17
1977–78	4	0	np	np	np	155	0	0	13
1978–79	4	0	np	np	np	174	0	0	9
1979–80	4	0	np	np	np	175	0	0	9
1980–81	9	0	np	np	np	181	0	0	17
1981–82	13	0	np	np	np	233	0	0	22
1982–83	16	0	np	np	np	287	0	0	21
1983–84	13	0	np	np	np	262	0	0	30
1984–85	26	0	np	np	np	293	0	0	30
1985–86	34	0	np	np	np	318	0	0	39
1986–87	39	0	np	np	np	324	0	0	22
1987–88	39	0	np	np	np	335	0	0	34
1988–89	39	0	np	np	np	375	0	0	34
1989–90	39	0	np	np	np	360	0	0	30
1990–91	35	0	np	np	np	376	0	0	22
1991–92	34	0	np	np	np	329	0	0	26
1992–93	34	0	np	np	np	301	0	0	22
1993–94	34	0	np	np	np	366	0	0	22
1994–95	38	0	np	np	np	375	0	0	26
1995–96	34	0	np	np	np	376	0	0	21
1996–97	34	0	np	np	np	391	0	0	17
1997–98	39	0	np	np	np	383	0	0	17
1998–99	39	0	np	np	np	364	0	0	17
1999–00	38	0	np	np	np	359	0	0	21
2000–01	68	0	np	np	np	325	0	0	21
2001–02	69	0	np	np	np	325	0	0	17
2002–03	67	0	np	np	np	203	0	0	8
2003–04	63	0	np	np	np	229	0	0	8
2004–05	62	0	np	np	np	256	0	0	8
2005–06	65	0	np	np	np	280	0	0	8
2006–07	60	0	np	np	np	285	0	0	8
2007–08	63	0	np	np	np	282	0	0	7
2008–09	75	0	np	np	np	283	0	0	7
2009–10	80	0	np	np	np	235	0	0	6
2010–11	75	0	np	np	np	158	0	0	4
2011–12	57	0	np	np	np	171	0	0	2
2012–13	57	0	np	np	np	248	0	0	1

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.10g Black coal usage—Australian black coal consumption, by industry—Northern Territory

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
1974–75	0	0	np	np	np	0	0	0	0
1975–76	0	0	np	np	np	0	0	0	0
1976–77	0	0	np	np	np	0	0	0	0
1977–78	0	0	np	np	np	0	0	0	0
1978–79	0	0	np	np	np	0	0	0	0
1979–80	0	0	np	np	np	0	0	0	0
1980–81	0	0	np	np	np	0	0	0	0
1981–82	0	0	np	np	np	0	0	0	0
1982–83	0	0	np	np	np	0	0	0	0
1983–84	0	0	np	np	np	0	0	0	0
1984–85	0	0	np	np	np	0	0	0	0
1985–86	0	0	np	np	np	0	0	0	0
1986–87	0	0	np	np	np	0	0	0	0
1987–88	0	0	np	np	np	0	0	0	0
1988–89	0	0	np	np	np	0	0	0	0
1989–90	0	0	np	np	np	0	0	0	0
1990–91	0	0	np	np	np	0	0	0	0
1991–92	0	0	np	np	np	0	0	0	0
1992–93	0	0	np	np	np	0	0	0	0
1993–94	0	0	np	np	np	0	0	0	0
1994–95	0	0	np	np	np	0	0	0	0
1995–96	0	0	np	np	np	0	0	0	0
1996–97	0	0	np	np	np	0	0	0	0
1997–98	0	0	np	np	np	0	0	0	0
1998–99	0	0	np	np	np	0	0	0	0
1999–00	0	0	np	np	np	0	0	0	0
2000–01	0	0	np	np	np	0	0	0	0
2001–02	0	0	np	np	np	0	0	0	0
2002–03	0	0	np	np	np	0	0	0	0
2003–04	0	0	np	np	np	0	0	0	0
2004–05	0	0	np	np	np	0	0	0	0
2005–06	0	0	np	np	np	0	0	0	0
2006–07	0	0	np	np	np	0	0	0	0
2007–08	0	0	np	np	np	0	0	0	0
2008–09	0	0	np	np	np	0	0	0	0
2009–10	0	0	np	np	np	0	0	0	0
2010–11	0	0	np	np	np	0	0	0	0
2011–12	0	0	np	np	np	0	0	0	0
2012–13	0	0	np	np	np	0	0	0	0

np: Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.10h Black coal usage—Australian black coal consumption, by industry—Australia

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
1974–75	304	54	813	8 550	940	883	15 034	0	428
1975–76	305	62	745	8 186	1 006	839	14 999	0	441
1976–77	296	62	767	7 473	1 105	896	17 821	0	401
1977–78	267	56	700	7 488	1 045	812	19 125	0	378
1978–79	256	55	755	7 576	1 161	794	19 615	0	349
1979–80	271	59	732	7 230	1 238	758	22 262	0	324
1980–81	293	59	763	7 725	1 241	802	23 458	0	309
1981–82	318	73	861	6 859	1 169	801	23 422	0	293
1982–83	305	77	807	5 316	1 202	885	25 245	23	261
1983–84	344	85	688	5 464	1 272	904	27 313	151	273
1984–85	346	84	787	5 691	1 582	1 075	28 675	136	285
1985–86	387	93	793	5 635	1 704	1 149	29 333	140	289
1986–87	395	98	662	5 897	1 862	1 054	30 593	169	345
1987–88	399	107	646	6 099	1 847	1 027	31 390	156	381
1988–89	400	89	778	6 808	1 892	1 065	33 530	174	387
1989–90	404	101	739	6 334	1 883	1 219	35 182	160	492
1990–91	457	97	676	6 226	1 886	1 181	35 956	171	453
1991–92	442	101	643	6 311	2 007	1 186	36 917	182	452
1992–93	410	86	658	6 084	2 052	1 208	38 263	186	419
1993–94	454	97	769	6 234	2 087	1 159	39 048	180	391
1994–95	456	96	779	6 134	2 102	1 167	40 150	182	474
1995–96	520	97	688	5 786	2 032	1 171	42 948	183	479
1996–97	506	134	696	6 001	2 088	1 177	43 470	197	480
1997–98	481	119	754	5 924	2 063	1 124	45 668	193	389
1998–99	481	60	776	5 889	2 098	1 156	46 671	191	384
1999–00	432	56	706	5 052	2 066	1 098	46 044	192	1 625
2000–01	379	64	824	4 553	2 043	1 164	50 143	225	339
2001–02	356	64	820	4 581	2 034	1 169	51 814	230	326
2002–03	469	129	1 061	4 950	1 767	1 122	52 157	217	58
2003–04	458	130	1 099	5 309	1 800	1 157	55 182	252	60
2004–05	454	142	1 029	5 390	2 017	1 206	56 643	347	60
2005–06	460	143	1 037	5 340	1 988	1 236	57 657	299	43
2006–07	464	145	1 076	5 384	2 087	1 214	58 567	321	40
2007–08	491	145	1 115	5 398	2 216	1 212	57 321	347	34
2008–09	489	0	1 057	4 131	2 309	1 235	59 855	308	29
2009–10	456	0	1 067	4 870	1 926	1 074	54 056	320	25
2010–11	476	0	1 064	5 223	1 620	951	50 870	274	302
2011–12	375	0	1 024	4 362	1 688	992	51 137	315	257
2012–13	393	0	969	4 175	1 998	1 171	49 924	307	163

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.11 Black coal usage—coal prices (export)

Average over financial year ending	Hard coking coal	Semisoft coking coal \$/tonne	Thermal coal
Jun-2002	81.77	66.51	57.51
Jun-2003	77.08	56.25	44.50
Jun-2004	64.26	49.10	40.98
Jun-2005	95.28	69.40	59.55
Jun-2006	157.49	111.65	65.02
Jun-2007	132.96	81.97	60.54
Jun-2008	129.66	97.46	72.70
Jun-2009	318.28	251.46	131.16
Jun-2010	174.59	125.37	88.06
Jun-2011	230.81	177.06	97.37
Jun-2012	237.00	177.13	108.04
Jun-2013	157.85	124.70	89.01
Jun-2014	136.93	114.86	85.83

Source: BREE (2013b), BREE (2014d).

Table E 3.12a Brown coal usage—Australian brown coal consumption, by industry—New South Wales

Financial year	Mining	Manufacturing	Electricity generation	Households	Other industries
			<i>kilotonnes</i>		
1974–75	0	0	0	0	0
1975–76	0	0	0	0	0
1976–77	0	0	0	0	0
1977–78	0	0	0	0	0
1978–79	0	0	0	0	0
1979–80	0	0	0	0	0
1980–81	0	0	0	0	0
1981–82	0	0	0	0	0
1982–83	0	0	0	0	0
1983–84	0	0	0	0	0
1984–85	0	0	0	0	0
1985–86	0	0	0	0	0
1986–87	0	0	0	0	0
1987–88	0	0	0	0	0
1988–89	0	0	0	0	0
1989–90	0	0	0	0	0
1990–91	0	0	0	0	0
1991–92	0	0	0	0	0
1992–93	0	0	0	0	0
1993–94	0	5	0	0	0
1994–95	0	5	0	0	0
1995–96	0	5	0	0	0
1996–97	0	0	0	0	0
1997–98	0	0	0	0	0
1998–99	0	10	0	0	0
1999–00	0	10	0	0	0
2000–01	0	0	0	0	0
2001–02	0	0	0	0	0
2002–03	0	3	0	0	0
2003–04	0	3	0	0	0
2004–05	0	3	0	0	0
2005–06	0	3	0	0	0
2006–07	0	3	0	0	0
2007–08	0	3	0	0	0
2008–09	0	2	0	0	0
2009–10	0	1	0	0	0
2010–11	0	0	0	0	0
2011–12	0	0	0	0	0
2012–13	0	0	0	0	0

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.12b Brown coal usage—Australian brown coal consumption, by industry—Victoria

Financial year	Mining	Manufacturing	Electricity generation	Households	Other industries
			<i>kilotonnes</i>		
1974–75	2 673	na	na	304	na
1975–76	2 295	na	na	204	na
1976–77	2 501	na	na	166	na
1977–78	2 584	na	na	125	na
1978–79	2 715	na	na	101	na
1979–80	3 005	na	na	78	na
1980–81	2 612	na	na	65	na
1981–82	2 448	na	na	47	na
1982–83	1 819	na	na	33	na
1983–84	1 835	na	na	28	na
1984–85	1 953	na	na	23	na
1985–86	2 004	na	na	19	na
1986–87	1 935	na	na	19	na
1987–88	1 909	na	na	14	na
1988–89	1 663	na	na	14	na
1989–90	1 680	na	na	14	na
1990–91	1 686	na	na	9	na
1991–92	1 895	na	na	9	na
1992–93	1 200	na	na	9	na
1993–94	1 399	na	na	9	na
1994–95	1 358	na	na	9	na
1995–96	1 251	na	na	10	na
1996–97	1 472	na	na	10	na
1997–98	1 190	na	na	5	na
1998–99	922	na	na	5	na
1999–00	1 108	na	na	5	na
2000–01	859	na	na	5	na
2001–02	1 254	na	na	5	na
2002–03	1 277	na	na	5	na
2003–04	954	na	na	3	na
2004–05	1 001	na	na	4	na
2005–06	771	na	na	3	na
2006–07	722	na	na	2	na
2007–08	679	na	na	2	na
2008–09	592	na	na	2	na
2009–10	468	na	na	1	na
2010–11	530	na	na	1	na
2011–12	622	na	na	1	na
2012–13	595	na	na	1	na

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.12c Brown coal usage—Australian brown coal consumption, by industry—Australia

Financial year	Mining	Manufacturing	Electricity generation	Households	Other industries
			<i>kilotonnes</i>		
1974–75	2 673	1 088	25 115	304	104
1975–76	2 295	1 024	27 417	204	94
1976–77	2 501	910	29 043	166	98
1977–78	2 584	886	28 350	125	88
1978–79	2 715	938	29 680	101	87
1979–80	3 005	893	30 319	78	87
1980–81	2 612	902	29 909	65	83
1981–82	2 448	834	35 436	47	85
1982–83	1 819	777	33 259	33	70
1983–84	1 835	744	31 682	28	79
1984–85	1 953	766	36 897	23	89
1985–86	2 004	865	35 130	19	90
1986–87	1 935	817	41 026	19	79
1987–88	1 909	847	42 941	14	89
1988–89	1 663	669	48 248	14	83
1989–90	1 680	585	46 292	14	90
1990–91	1 686	529	49 375	9	89
1991–92	1 895	443	50 804	9	85
1992–93	1 200	425	48 381	9	80
1993–94	1 399	381	49 252	9	85
1994–95	1 358	382	51 253	9	90
1995–96	1 251	374	54 198	10	97
1996–97	1 472	416	58 610	10	76
1997–98	1 190	385	67 102	5	57
1998–99	922	280	70 876	5	68
1999–00	1 108	310	71 360	5	95
2000–01	859	216	69 904	5	138
2001–02	1 254	118	70 448	5	118
2002–03	1 277	357	65 276	5	97
2003–04	954	182	67 218	3	50
2004–05	1 001	240	66 939	4	66
2005–06	771	193	68 557	3	53
2006–07	722	154	68 220	2	43
2007–08	679	140	68 632	2	39
2008–09	592	128	71 124	2	38
2009–10	468	132	70 532	1	34
2010–11	530	132	69 234	1	33
2011–12	622	158	70 418	1	34
2012–13	595	149	61 538	1	35

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.13a Petroleum usage—Australian petroleum fuel consumption¹, by industry—New South Wales

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	73	np	np	2 985	4 938	878	822	214	417	11 176
1975–76	75	np	np	2 772	5 095	761	832	224	417	11 006
1976–77	80	np	np	2 734	5 393	849	831	228	465	11 248
1977–78	80	np	np	2 413	5 606	896	885	231	422	11 203
1978–79	86	np	np	2 314	5 903	780	858	240	420	4 890
1979–80	96	np	np	2 189	6 026	788	876	234	293	4 801
1980–81	104	np	np	1 806	6 175	800	848	224	214	4 920
1981–82	112	np	np	1 699	6 454	643	926	242	201	5 023
1982–83	111	np	np	1 132	6 187	647	837	185	154	8 948
1983–84	101	np	np	1 164	6 417	630	910	203	132	9 334
1984–85	96	np	np	1 042	6 601	573	1 000	218	128	9 486
1985–86	103	np	np	1 089	6 684	507	1 018	179	115	9 463
1986–87	116	np	np	989	6 763	450	1 027	207	109	9 353
1987–88	108	np	np	1 097	7 000	448	1 206	215	92	9 827
1988–89	136	np	np	1 145	7 171	470	1 334	205	83	10 159
1989–90	155	np	np	1 156	7 252	402	1 313	186	94	10 388
1990–91	158	np	np	1 268	7 089	357	1 430	178	112	10 596
1991–92	162	np	np	1 309	7 115	333	1 501	182	116	10 791
1992–93	162	np	np	1 490	7 309	347	1 621	189	91	10 954
1993–94	174	np	np	1 281	7 484	386	1 617	182	88	11 232
1994–95	174	np	np	1 517	7 731	519	1 778	176	88	11 886
1995–96	192	np	np	1 646	7 852	641	2 054	185	83	12 192
1996–97	223	np	np	1 150	8 000	532	2 138	193	101	12 287
1997–98	241	np	np	1 179	8 107	448	2 205	209	97	12 333
1998–99	247	np	np	1 372	8 378	488	2 164	220	88	12 423
1999–00	245	np	np	1 145	8 369	557	2 319	209	56	12 859
2000–01	260	np	np	1 560	8 325	389	2 492	184	81	12 880
2001–02	295	np	np	1 493	8 583	409	2 078	203	86	12 786
2002–03	301	np	np	424	8 338	330	1 805	161	90	12 303
2003–04	407	np	np	396	8 697	310	1 771	169	77	12 648
2004–05	454	np	np	398	8 579	360	1 987	170	77	12 822
2005–06	430	np	np	571	8 583	507	2 139	186	177	13 458
2006–07	410	np	np	615	8 749	483	2 393	188	186	13 870
2007–08	433	np	np	550	8 864	494	2 738	200	226	14 361
2008–09	472	np	np	700	8 895	354	2 679	172	228	14 358
2009–10	562	np	np	774	9 030	306	3 027	180	233	14 966
2010–11	650	np	np	685	9 248	213	3 205	248	257	15 335
2011–12	744	np	np	713	9 174	298	3 319	229	227	15 507
2012–13	844	np	np	670	9 171	172	3 278	239	211	15 390

¹ See end notes.

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.13b Petroleum usage—Australian petroleum fuel consumption¹,
by industry—Victoria

Financial year	Mining	Manufacturing			Transport				Residential	Total consump- tion
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manu- facturing	Road transport	Water transport	Air transport	Other transport		
		gigalitres								
1975–76	42	np	np	1 469	4 009	641	396	77	562	7 958
1976–77	49	np	np	1 670	4 229	645	399	81	596	8 499
1977–78	40	np	np	1 712	4 380	763	444	78	537	8 854
1978–79	35	np	np	1 681	4 513	702	422	80	510	8 957
1979–80	31	np	np	1 689	4 514	595	445	78	348	8 636
1980–81	18	np	np	1 515	4 561	570	471	81	240	8 234
1981–82	22	np	np	1 393	4 782	470	493	81	214	8 215
1982–83	18	np	np	1 289	4 766	414	471	66	196	7 711
1983–84	18	np	np	1 444	4 979	389	436	67	197	7 942
1984–85	20	np	np	1 523	5 165	419	470	71	183	8 128
1985–86	19	np	np	1 695	5 418	336	480	70	205	8 414
1986–87	22	np	np	1 675	5 694	403	543	63	220	8 835
1987–88	16	np	np	1 853	6 114	366	576	68	218	9 374
1988–89	16	np	np	1 936	6 428	391	568	64	208	9 832
1989–90	21	np	np	1 939	7 032	401	562	59	289	10 603
1990–91	23	np	np	1 993	6 779	317	591	57	243	9 980
1991–92	21	np	np	1 794	6 713	378	637	59	228	9 740
1992–93	23	np	np	1 915	6 907	309	615	60	261	10 127
1993–94	27	np	np	2 154	6 905	353	613	41	226	10 161
1994–95	26	np	np	2 118	7 023	390	701	38	202	10 525
1995–96	21	np	np	2 193	7 029	360	747	37	190	10 425
1996–97	18	np	np	2 075	6 902	380	785	37	161	10 210
1997–98	18	np	np	2 225	7 000	279	820	39	155	10 426
1998–99	18	np	np	2 180	6 949	295	814	42	113	10 400
1999–00	18	np	np	2 124	7 001	316	912	43	109	10 586
2000–01	25	np	np	1 512	7 214	239	1 007	48	152	10 568
2001–02	25	np	np	1 452	7 355	261	949	45	145	10 844
2002–03	10	np	np	1 051	7 677	252	898	52	155	10 682
2003–04	9	np	np	1 014	8 113	305	994	54	159	11 256
2004–05	16	np	np	989	8 026	305	1 056	94	147	11 277
2005–06	35	np	np	1 038	7 844	318	1 147	100	195	11 266
2006–07	40	np	np	835	7 807	296	1 100	116	170	10 886
2007–08	43	np	np	386	7 981	370	963	134	174	10 617
2008–09	41	np	np	366	7 608	441	1 087	132	167	10 336
2009–10	46	np	np	344	7 563	352	1 114	143	140	10 225
2010–11	52	np	np	366	8 010	281	1 152	144	155	10 712
2011–12	54	np	np	410	8 217	246	1 139	128	124	10 866
2012–13	64	np	np	487	8 240	182	1 279	139	132	11 063

¹ See end notes.

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.13c Petroleum usage—Australian petroleum fuel consumption¹,
by industry—Queensland

Financial year	Mining	Manufacturing			Transport				Residential	Total consump- tion
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manu- facturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	np	np	np	945	1 962	225	269	162	98	4 566
1975–76	np	np	np	1 093	2 122	243	249	211	99	4 875
1976–77	np	np	np	1 127	2 242	257	236	243	103	5 192
1977–78	np	np	np	1 113	2 362	236	258	219	105	5 290
1978–79	np	np	np	1 104	2 499	239	252	250	103	5 513
1979–80	np	np	np	1 101	2 603	220	264	268	101	5 663
1980–81	np	np	np	1 059	2 735	233	265	262	96	5 791
1981–82	np	np	np	891	2 943	208	387	191	106	6 071
1982–83	np	np	np	605	2 964	176	391	179	76	5 673
1983–84	np	np	np	646	3 120	126	381	214	71	5 642
1984–85	np	np	np	679	3 254	94	402	220	76	5 879
1985–86	np	np	np	660	3 356	89	421	231	81	6 036
1986–87	np	np	np	641	3 454	124	436	224	87	6 141
1987–88	np	np	np	726	3 661	104	496	189	91	6 573
1988–89	np	np	np	740	3 862	147	559	156	87	6 986
1989–90	np	np	np	749	3 990	167	498	146	94	7 144
1990–91	np	np	np	380	3 990	105	624	158	93	6 822
1991–92	np	np	np	327	4 120	84	679	155	80	6 926
1992–93	np	np	np	362	4 315	72	769	166	89	7 287
1993–94	np	np	np	431	4 496	89	861	162	94	7 780
1994–95	np	np	np	440	4 718	172	1 004	177	88	8 282
1995–96	np	np	np	399	4 851	86	1 049	169	83	8 396
1996–97	np	np	np	402	4 912	106	1 103	151	85	8 649
1997–98	np	np	np	430	5 016	120	1 050	164	81	8 684
1998–99	np	np	np	410	5 076	56	1 070	110	77	8 630
1999–00	np	np	np	799	5 252	99	903	189	99	9 308
2000–01	np	np	np	403	5 395	127	936	229	108	9 205
2001–02	np	np	np	402	5 558	119	868	220	104	9 327
2002–03	np	np	np	338	5 855	79	899	203	114	9 342
2003–04	np	np	np	342	6 318	74	905	238	105	9 954
2004–05	np	np	np	351	6 354	78	982	226	92	10 294
2005–06	np	np	np	453	6 507	91	1 042	258	128	10 700
2006–07	np	np	np	432	6 877	130	1 126	275	141	11 256
2007–08	np	np	np	374	7 051	129	1 313	403	149	11 739
2008–09	np	np	np	324	6 878	95	1 352	304	151	11 572
2009–10	np	np	np	365	6 778	115	1 454	330	131	11 686
2010–11	np	np	np	405	6 757	134	1 498	300	143	11 879
2011–12	np	np	np	444	7 049	196	1 558	278	142	12 800
2012–13	np	np	np	433	7 276	109	1 619	297	148	13 352

¹ See end notes.

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.13d Petroleum usage—Australian petroleum fuel consumption¹,
by industry—South Australia

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	34	np	np	513	1 349	80	112	91	121	2 677
1975–76	32	np	np	526	1 429	82	111	96	117	2 782
1976–77	79	np	np	344	1 519	102	116	96	127	2 790
1977–78	83	np	np	377	1 545	137	126	99	113	2 830
1978–79	88	np	np	304	1 595	147	129	96	115	1 382
1979–80	88	np	np	305	1 565	162	126	102	85	1 314
1980–81	81	np	np	179	1 541	161	132	107	64	1 290
1981–82	72	np	np	145	1 561	109	122	91	66	1 325
1982–83	53	np	np	99	1 600	129	129	83	50	2 405
1983–84	50	np	np	83	1 676	86	132	99	43	2 416
1984–85	40	np	np	93	1 756	76	137	96	61	2 505
1985–86	44	np	np	163	1 808	58	153	99	83	2 728
1986–87	46	np	np	144	1 838	65	157	101	73	2 700
1987–88	46	np	np	162	1 915	39	154	101	75	2 745
1988–89	50	np	np	176	1 969	55	179	109	70	2 867
1989–90	41	np	np	160	2 023	42	144	109	73	2 895
1990–91	36	np	np	146	1 947	32	178	106	69	2 860
1991–92	41	np	np	111	1 981	27	166	109	66	2 856
1992–93	42	np	np	103	2 022	52	170	112	67	2 891
1993–94	42	np	np	112	2 044	60	170	111	60	2 932
1994–95	46	np	np	135	2 046	44	179	106	73	3 071
1995–96	45	np	np	146	2 059	27	184	104	89	3 154
1996–97	45	np	np	119	2 067	27	189	106	60	2 969
1997–98	45	np	np	100	2 137	29	189	106	60	3 016
1998–99	68	np	np	97	2 158	22	201	106	54	3 086
1999–00	72	np	np	100	2 253	22	198	106	47	3 121
2000–01	79	np	np	92	2 251	10	202	63	48	3 110
2001–02	73	np	np	99	2 299	22	159	52	51	3 072
2002–03	112	np	np	75	2 326	12	145	53	56	3 112
2003–04	79	np	np	49	2 185	6	141	55	30	2 838
2004–05	85	np	np	51	2 178	13	154	41	33	2 860
2005–06	109	np	np	59	2 201	15	201	44	49	2 997
2006–07	95	np	np	66	2 271	14	200	43	47	3 070
2007–08	87	np	np	72	2 286	9	242	45	63	3 156
2008–09	123	np	np	64	2 309	10	212	47	66	3 158
2009–10	118	np	np	54	2 355	22	201	52	66	3 214
2010–11	171	np	np	52	2 378	11	245	126	71	3 353
2011–12	217	np	np	67	2 373	5	272	91	63	3 385
2012–13	288	np	np	60	2 379	1	303	101	61	3 486

¹ See end notes.

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.13e Petroleum usage—Australian petroleum fuel consumption¹, by industry—Western Australia

Financial year	Mining	Manufacturing			Transport				Residential	Total consump- tion
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manu- facturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	368	np	np	587	1 358	713	210	158	134	4 441
1975–76	370	np	np	750	1 428	600	216	166	140	4 569
1976–77	424	np	np	975	1 527	755	244	165	138	5 217
1977–78	422	np	np	1 027	1 596	747	256	168	137	5 371
1978–79	467	np	np	1 043	1 650	648	262	164	144	5 453
1979–80	512	np	np	996	1 681	589	260	151	126	5 260
1980–81	283	np	np	903	1 716	577	264	153	112	4 969
1981–82	212	np	np	845	1 814	362	282	138	101	4 655
1982–83	194	np	np	633	1 796	428	303	138	90	4 451
1983–84	200	np	np	865	1 899	323	270	123	83	4 589
1984–85	221	np	np	457	1 975	382	271	144	83	4 207
1985–86	223	np	np	163	2 027	267	294	148	79	3 740
1986–87	248	np	np	135	2 062	259	316	154	71	3 772
1987–88	257	np	np	97	2 167	387	301	148	55	3 955
1988–89	319	np	np	144	2 257	292	299	146	54	4 226
1989–90	404	np	np	96	2 323	256	299	146	58	4 478
1990–91	428	np	np	199	2 278	227	329	156	52	4 503
1991–92	456	np	np	121	2 311	211	351	165	54	4 511
1992–93	485	np	np	88	2 389	219	357	142	58	4 693
1993–94	525	np	np	83	2 476	221	390	150	49	4 888
1994–95	561	np	np	82	2 604	295	436	147	39	5 254
1995–96	683	np	np	133	2 675	259	462	144	39	5 545
1996–97	800	np	np	99	2 779	229	494	150	50	5 660
1997–98	751	np	np	114	2 919	152	490	143	74	5 611
1998–99	741	np	np	130	2 967	160	501	142	69	5 577
1999–00	784	np	np	130	2 998	139	503	147	70	5 587
2000–01	735	np	np	494	2 871	201	521	166	59	5 434
2001–02	792	np	np	679	3 056	279	429	163	113	5 832
2002–03	837	np	np	81	3 179	230	414	165	129	5 889
2003–04	765	np	np	105	3 203	229	406	179	119	5 975
2004–05	813	np	np	109	3 367	335	426	192	141	6 416
2005–06	768	np	np	82	3 238	281	715	205	74	6 385
2006–07	863	np	np	88	3 438	424	898	224	66	7 107
2007–08	931	np	np	217	3 400	456	712	225	73	7 278
2008–09	1 072	np	np	252	3 535	466	741	243	70	7 513
2009–10	1 027	np	np	224	3 453	534	770	268	69	7 474
2010–11	1 223	np	np	225	3 532	567	851	174	64	7 824
2011–12	1 564	np	np	218	3 536	503	905	331	66	8 331
2012–13	1 931	np	np	227	3 563	221	1 008	361	67	8 643

¹ See end notes.

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.13f Petroleum usage—Australian petroleum fuel consumption¹,
by industry—Tasmania

Financial year	Mining	Manufacturing			Transport				Residential	Total consump- tion
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manu- facturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	np	np	np	np	415	55	23	10	84	1 050
1975–76	np	np	np	np	426	66	27	10	85	1 062
1976–77	np	np	np	np	461	63	28	11	96	1 081
1977–78	np	np	np	np	474	49	32	10	95	1 080
1978–79	np	np	np	np	493	41	39	10	87	1 108
1979–80	np	np	np	np	494	49	44	11	63	1 138
1980–81	np	np	np	np	491	48	38	10	46	1 094
1981–82	np	np	np	np	498	29	38	10	40	1 102
1982–83	np	np	np	np	491	18	37	10	30	868
1983–84	np	np	np	np	514	27	36	10	23	875
1984–85	np	np	np	np	535	15	37	13	21	872
1985–86	np	np	np	np	549	30	46	10	17	855
1986–87	np	np	np	np	553	28	38	10	17	819
1987–88	np	np	np	np	560	22	38	10	18	819
1988–89	np	np	np	np	579	20	34	10	20	834
1989–90	np	np	np	np	592	20	30	10	19	980
1990–91	np	np	np	np	588	13	33	13	13	1 178
1991–92	np	np	np	np	589	8	30	10	12	844
1992–93	np	np	np	np	618	10	32	10	15	863
1993–94	np	np	np	np	605	26	35	10	10	870
1994–95	np	np	np	np	613	23	36	10	14	887
1995–96	np	np	np	np	620	16	33	10	11	872
1996–97	np	np	np	np	627	13	36	10	10	866
1997–98	np	np	np	np	638	8	29	10	11	887
1998–99	np	np	np	np	642	5	29	10	3	894
1999–00	np	np	np	np	634	5	41	10	3	917
2000–01	np	np	np	np	600	5	33	13	3	897
2001–02	np	np	np	np	618	8	33	13	3	923
2002–03	np	np	np	np	637	17	32	13	3	925
2003–04	np	np	np	np	683	19	35	17	4	956
2004–05	np	np	np	np	670	9	43	18	2	924
2005–06	np	np	np	np	657	8	34	13	17	945
2006–07	np	np	np	np	665	8	33	13	13	949
2007–08	np	np	np	np	664	12	35	13	21	961
2008–09	np	np	np	np	647	5	39	14	22	923
2009–10	np	np	np	np	625	8	29	14	23	919
2010–11	np	np	np	np	612	8	28	8	24	866
2011–12	np	np	np	np	591	8	22	6	24	835
2012–13	np	np	np	np	581	13	22	6	24	830

¹ See end notes.

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.13g Petroleum usage—Australian petroleum fuel consumption¹, by industry—Northern Territory

Financial year	Mining	Manufacturing			Transport				Residential	Total consump- tion
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manu- facturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	16	np	np	np	111	22	97	3	8	813
1975–76	13	np	np	np	123	8	65	1	5	778
1976–77	16	np	np	np	141	20	67	0	5	839
1977–78	13	np	np	np	153	8	78	- 1	5	881
1978–79	13	np	np	np	164	15	85	- 1	5	892
1979–80	16	np	np	np	179	33	91	1	5	997
1980–81	18	np	np	np	188	15	77	0	6	1 029
1981–82	13	np	np	np	206	8	80	1	6	964
1982–83	13	np	np	np	208	3	87	1	5	1 011
1983–84	13	np	np	np	226	5	93	- 1	10	1 080
1984–85	30	np	np	np	239	5	95	- 1	8	1 074
1985–86	21	np	np	np	245	3	104	1	9	1 114
1986–87	21	np	np	np	243	8	117	1	9	1 081
1987–88	23	np	np	np	253	8	123	0	10	990
1988–89	31	np	np	np	250	8	97	- 1	10	995
1989–90	37	np	np	np	249	3	113	1	9	1 039
1990–91	37	np	np	np	241	5	112	0	9	1 044
1991–92	31	np	np	np	242	3	139	0	9	1 083
1992–93	31	np	np	np	252	5	154	1	9	1 087
1993–94	28	np	np	np	257	13	173	1	9	1 126
1994–95	26	np	np	np	271	28	193	0	9	1 199
1995–96	34	np	np	np	279	23	186	- 1	9	1 260
1996–97	39	np	np	np	284	26	179	- 1	14	1 289
1997–98	49	np	np	np	283	41	158	- 1	5	1 294
1998–99	45	np	np	np	288	50	163	- 1	6	1 332
1999–00	46	np	np	np	286	51	203	- 1	6	1 370
2000–01	45	np	np	np	260	27	188	3	3	1 227
2001–02	40	np	np	np	264	22	169	2	3	1 215
2002–03	27	np	np	np	324	24	144	4	5	1 222
2003–04	59	np	np	np	307	17	166	3	5	1 289
2004–05	101	np	np	np	300	14	173	3	5	1 275
2005–06	166	np	np	np	251	30	169	2	6	1 228
2006–07	111	np	np	np	311	77	179	2	7	1 381
2007–08	98	np	np	np	318	57	155	2	11	1 457
2008–09	97	np	np	np	364	65	159	3	11	1 509
2009–10	90	np	np	np	386	106	161	3	8	1 153
2010–11	89	np	np	np	329	103	166	31	11	926
2011–12	96	np	np	np	321	73	206	21	11	954
2012–13	107	np	np	np	284	21	228	18	11	858

¹ See end notes.

np Not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.13h Petroleum usage—Australian petroleum fuel consumption¹,
by industry—Australia

Financial year	Mining	Manufacturing			Transport				Residential	Total consump- tion
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manu- facturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	712	np	1 535	5 934	13 872	2 656	1 883	293	1 447	33 189
1975–76	712	np	1 254	6 036	14 535	2 399	1 849	362	1 419	33 426
1976–77	843	np	1 298	6 237	15 383	2 690	1 854	413	1 533	35 266
1977–78	837	np	1 261	6 045	16 006	2 835	2 018	376	1 406	35 921
1978–79	875	np	1 248	5 870	16 686	2 568	1 966	417	1 377	36 277
1979–80	933	np	1 451	5 522	16 953	2 434	2 032	419	1 023	35 967
1980–81	702	np	1 347	4 779	17 327	2 402	2 011	421	774	34 807
1981–82	624	np	1 379	4 189	18 227	1 827	2 305	296	729	34 604
1982–83	577	np	1 076	3 221	17 936	1 772	2 234	226	600	32 272
1983–84	572	np	1 252	3 549	18 761	1 554	2 236	245	545	33 363
1984–85	593	np	1 357	3 114	19 430	1 518	2 388	692	521	33 574
1985–86	620	np	1 587	2 858	19 952	1 261	2 496	652	538	34 028
1986–87	688	np	1 483	2 788	20 418	1 300	2 618	659	541	34 325
1987–88	701	np	1 713	3 019	21 424	1 352	2 890	598	503	35 950
1988–89	830	np	1 735	3 148	22 248	1 350	3 032	551	496	37 634
1989–90	955	np	1 966	3 084	22 887	1 274	2 935	472	561	38 619
1990–91	982	np	1 944	3 032	22 513	1 071	3 281	473	557	38 278
1991–92	1 019	np	1 845	2 855	22 672	1 003	3 501	444	534	38 200
1992–93	1 072	np	2 036	2 991	23 356	958	3 709	437	559	39 528
1993–94	1 132	np	2 035	3 112	23 886	1 057	3 856	360	512	40 636
1994–95	1 204	np	2 125	3 294	24 773	1 438	4 339	320	511	42 749
1995–96	1 385	np	2 218	3 259	25 255	1 360	4 728	307	501	43 933
1996–97	1 555	np	1 513	3 017	25 560	1 264	4 945	277	489	43 556
1997–98	1 599	np	1 496	3 236	26 016	1 056	4 945	313	491	44 120
1998–99	1 630	np	1 419	3 373	26 208	1 010	4 937	268	369	44 268
1999–00	1 673	np	1 360	3 644	26 637	1 166	5 083	306	387	45 715
2000–01	1 871	np	1 342	3 392	26 721	1 030	5 388	330	476	45 295
2001–02	2 001	np	1 403	3 474	27 475	1 126	4 691	309	521	46 064
2002–03	2 237	np	729	1 870	28 307	926	4 337	656	549	43 475
2003–04	2 338	np	712	1 803	29 456	930	4 417	719	493	44 916
2004–05	2 664	np	683	1 867	29 453	980	4 821	746	476	45 868
2005–06	2 631	np	793	1 985	29 279	1 082	5 447	800	654	46 979
2006–07	2 628	np	835	1 772	30 214	1 286	5 929	860	632	48 519
2007–08	2 791	np	612	1 600	30 575	1 329	6 158	1 016	724	49 569
2008–09	3 100	np	801	1 396	30 319	1 308	6 269	915	724	49 369
2009–10	3 198	np	807	1 338	30 292	1 138	6 756	992	673	49 637
2010–11	3 655	np	791	1 193	30 939	1 016	7 145	1 030	731	50 895
2011–12	4 533	np	766	1 348	31 345	1 034	7 421	1 091	658	52 678
2012–13	5 388	np	800	1 272	31 511	519	7 737	1 170	661	53 622

¹ See end notes.

Source: BITRE estimates based on BREE (2013a) and BREE (2014b).

Table E 3.14 Petroleum usage—world crude oil prices, by region of origin

Average over financial year	World Trade Weighted	Dubai ²	Brent ³	West Texas Intermediate ⁴	Gippsland ⁵	Tapis ⁶
<i>US\$/bbl</i>						
1990–91	21.95	20.74	24.64	25.32		
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	67.58	68.25	69.93	71.07	74.13
2009–10	73.39	74.23	74.52	75.22	76.53	77.46
2010–11	93.11	92.32	96.21	89.39	98.87	100.74
2011–12	106.27	108.14	110.63	94.22	116.07	120.53
2012–13	107.46	105.51	108.24	91.81	109.25	114.46

2, 3, 4, 5, 6 See end notes.

Note: Data are not readily available for missing years.

Source: BREE (2014c).

CHAPTER 4

Energy safety and emissions

Table E 4.1a 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
1998–99	286	186	494	162	202	53	2	0	1 385
1999–00	352	173	576	213	163	64	2	20	1 563
2000–01	352	175	507	257	121	54	7	18	1 491
2001–02	306	177	466	240	84	63	4	29	1 369
2002–03	323	257	373	236	92	69	3	21	1 374
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

Note: 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 (2014).

Table E 4.1b 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
1998–99	13	92	38	19	7	6	0	0	175
1999–00	18	31	67	18	18	6	0	0	158
2000–01	28	29	76	20	15	6	0	0	174
2001–02	24	20	127	8	np	np	0	0	185
2002–03	39	30	88	12	9	np	np	np	183
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

Note: Data on state of hospitalisation should be interpreted with caution because of cross-border flows of patients.

Note: Data are not readily available for missing years.

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

Source: AIHW (2014).

Table E 4.2 Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions by type of emissions

Year	Carbon dioxide	Methane	Nitrous oxide
	<i>gigagrams of CO₂ equivalent</i>		
1990	129 026.1	38.5	485.9
1991	131 205.7	38.1	498.6
1992	134 060.7	37.7	495.4
1993	134 968.1	39.3	505.2
1994	136 538.4	40.5	515.8
1995	142 129.9	44.5	538.3
1996	147 149.5	44.9	568.5
1997	152 135.2	44.4	598.7
1998	164 663.6	95.8	648.4
1999	170 888.9	103.4	664.3
2000	174 581.7	173.1	672.0
2001	181 752.5	171.2	684.3
2002	182 961.0	192.5	677.9
2003	184 822.1	122.9	680.4
2004	192 713.4	152.8	708.5
2005	193 526.1	149.4	717.4
2006	198 121.1	158.6	710.2
2007	199 934.0	177.3	693.8
2008	202 678.4	190.9	737.3
2009	203 865.7	243.7	747.9
2010	197 961.9	244.3	712.2
2011	191 709.6	221.5	680.0
2012	192 041.9	283.0	683.3

Source: Environment (2014).

Table E 4.3a Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—New South Wales

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	45 691.8			158.8	309.5	4.4		358.6		
1991	45 784.0			141.5	326.3	3.0		357.0		
1992	46 216.5			134.2	345.1	0.4		344.7		
1993	47 605.9			118.5	372.6	0.4		362.1		
1994	47 127.6			130.9	398.1	0.4		335.6		
1995	48 067.2			128.5	425.8	0.4		291.9		
1996	48 732.2			123.4	430.5	0.4		523.9		
1997	50 421.8			121.6	517.9	0.5		813.1		
1998	50 777.3			118.7	612.2	0.5	277.4	546.7		
1999	52 344.5			116.8	623.1	0.5	311.4	821.5		
2000	53 554.3			130.3	644.3	0.5	382.6	756.8	1.0	10.0
2001	56 297.7			138.2	690.8	3.9	453.4	764.1	1.7	9.7
2002	56 398.4			151.5	697.2	3.9	477.2	788.6	0.0	9.7
2003	56 062.8			158.9	922.3	3.9	352.6	1 097.1	1.1	12.0
2004	57 535.5			150.9	1 243.5	14.2	361.8	1 006.5	1.4	12.7
2005	57 200.8			156.1	1 446.5	14.2	328.2	1 193.2	1.6	13.5
2006	59 115.3			135.3	1 357.9	13.9	304.0	1 244.8	1.4	16.9
2007	60 682.4			134.9	1 319.5	13.9	379.5	1 442.7	0.6	17.6
2008	63 030.6			168.8	1 353.1	16.6	277.4	1 403.7	0.2	18.9
2009	62 355.5			91.2	1 441.9	97.0	182.1	1 611.9	0.0	20.6
2010	58 043.5			89.5	1 700.4	61.8	293.6	2 453.5	2.0	21.8
2011	54 127.0			62.0	2 162.0	69.6	314.2	2 130.9	2.1	19.4
2012	53 675.5			46.7	2 465.5	89.9	357.9	2 494.2	2.1	24.0

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.3b Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Victoria

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990		41 246.1	284.0	98.7	1.4			3 933.9		
1991		44 449.9	179.8	58.1	2.5			2 970.7		
1992		45 679.3	189.0	33.9	13.4			3 118.5		
1993		43 263.8	135.3	45.3	10.2			3 230.7		
1994		43 772.8	114.4	24.9	7.2			2 892.7		
1995		45 540.6	116.5	21.9	0.1			3 384.6		
1996		47 855.0	181.6	21.9	15.4			3 344.8		
1997		51 813.5	180.0	21.9	9.6			2 151.0		
1998		58 523.0	215.3	26.1				2 016.6		
1999		61 017.9	160.8	21.4	5.7			1 887.8		
2000		61 905.1	262.2	28.0	1.5			2 042.5		12.7
2001		61 183.9	261.8	40.2	19.0	3.1		2 348.4		12.5
2002		59 377.5	125.0	46.2	16.4	3.1		2 576.8		14.0
2003		60 207.1	167.8	29.1	21.0	3.1		2 666.7		11.3
2004		63 193.5	41.6	40.8	9.3	0.0		2 727.6		11.3
2005	12.5	61 877.1	41.9	41.3	27.5	0.7		2 980.1		9.5
2006		62 649.9	68.0	42.3	80.5	1.0		3 022.1		8.9
2007		61 550.4	61.5	40.3	52.1	0.9		3 884.1		8.7
2008		61 565.9	136.0	40.1	175.3	2.0		4 134.4		18.4
2009		63 753.1	132.9	67.9	81.4	2.1		4 057.8		18.3
2010		63 852.4	113.3	24.1	92.6	1.3		3 336.5		18.5
2011	2.6	63 347.8	115.9	46.1	47.9	1.8		2 484.3		22.6
2012	0.4	65 765.9	135.9	44.9	82.7	3.4		2 440.6		24.7

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.3c Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Queensland

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	22 406.0			52.6	901.4	8.8		303.2		
1991	23 038.2			41.2	930.7	6.0		339.9		
1992	24 294.7			35.4	932.4	0.8		374.5		
1993	25 818.3			58.0	974.1	0.8		393.8		
1994	26 399.3			53.5	1 021.7	0.8		428.1		
1995	28 262.5			44.6	1 058.3	0.8		424.4		
1996	29 168.9			43.1	1 096.9	0.8		559.8		
1997	30 425.8			43.0	1 176.9	0.7		584.0		
1998	34 661.2			69.9	1 187.9	0.7		612.4		
1999	35 591.5			58.4	1 273.1	0.7		1 164.3		
2000	35 560.6			32.3	1 459.7	0.7		1 633.4		1.1
2001	38 736.6			158.6	1 321.9	3.9		2 033.8		1.1
2002	41 218.1			35.1	1 492.1	3.9		2 396.3		1.6
2003	41 289.6			35.1	2 839.3	3.2	228.5	1 587.0		1.0
2004	44 451.6			46.1	2 934.1	0.0	235.8	1 919.7		1.0
2005	45 208.8			39.6	3 362.9	0.0	754.5	2 062.4		1.4
2006	46 810.0			37.1	3 159.3	0.0	1 443.7	2 044.3		1.5
2007	45 237.4			45.4	2 987.1	0.0	1 737.7	3 915.9		1.2
2008	44 419.1			42.8	3 033.3		1 530.8	4 583.0		1.5
2009	45 195.0			72.9	3 080.4	0.3	1 625.7	4 230.3	0.1	4.6
2010	43 695.6			68.9	3 076.2	18.2	2 796.5	3 704.4	7.0	6.4
2011	40 233.7			43.9	3 814.6	0.4	3 001.7	4 332.7	2.1	8.0
2012	39 081.4			11.5	4 310.4	0.4	4 757.6	3 624.9	0.6	7.8

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.3d Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—South Australia

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	243.6	3 975.7		25.8	22.2	3.0		3 821.1		
1991	318.6	3 456.2		16.6	41.8	3.0		3 122.0		
1992	295.9	3 956.6		20.9	23.2	2.4		3 377.0		
1993	396.3	3 721.5		24.1	26.9	2.4		3 592.8		
1994	132.4	3 611.3		19.0	29.4	2.4		3 732.6		
1995	57.8	3 563.0		19.4	33.7	2.4		3 491.0		
1996	- 124.2	3 424.8		54.0	19.4			2 980.1		
1997	81.6	3 761.0		16.2	45.3			3 005.1		
1998	- 42.1	3 857.3		17.8	50.2			3 328.3		
1999	- 39.1	4 053.1		85.9	32.0	15.9		4 070.1		
2000	145.6	4 253.2		87.5	31.8	14.7		3 773.8		22.7
2001	119.9	4 617.1		90.1	- 20.8	13.8		3 959.4		22.2
2002	567.1	4 280.5		36.7	11.4			4 141.6		10.0
2003	1 070.3	4 118.4		24.8	95.4			4 166.8		10.3
2004	114.7	4 454.0		31.9	174.2	0.0		4 303.3		10.3
2005	132.4	5 099.9		33.1	96.2	0.0		4 167.8		4.8
2006	258.9	4 839.5		29.8	103.1			4 165.1		5.1
2007	259.7	5 595.3		48.6	94.7	0.0		4 885.6		4.7
2008	248.3	5 262.4		42.8	91.2	0.0		5 251.2		3.3
2009	188.1	5 333.9		36.2	120.1	0.0		5 069.9		4.4
2010	369.5	5 103.3		37.0	119.5	0.0		5 077.3		4.3
2011	322.1	4 268.6		31.0	134.2	0.0		4 197.9		4.7
2012	280.7	3 194.7		28.4	141.2	0.0		4 105.4		4.3

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.3e Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Western Australia

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	6 656.9			272.6	1 182.4			4 362.5		
1991	8 078.9			277.9	1 137.1			4 051.0		
1992	8 100.4			215.2	1 106.0			4 497.4		
1993	8 201.9			214.0	1 095.0			5 069.0		
1994	7 954.2			212.6	1 071.6			5 895.8		
1995	7 313.5			213.5	1 343.3			7 150.9		
1996	8 730.5			239.7	1 352.2			7 015.7		
1997	8 412.4			206.8	859.1			8 181.1		
1998	8 063.0			13.9	893.4			9 240.2		
1999	7 926.0			41.7	630.7			9 507.2		
2000	8 708.3			21.9	494.4			9 651.6		2.8
2001	8 490.7			25.1	429.3	2.2		10 779.6		2.7
2002	8 718.9			21.3	433.6	2.2		11 120.9		3.6
2003	9 893.3			13.9	971.9	2.9		11 380.9		5.9
2004	8 993.7			23.1	1 222.5	0.6		12 025.3		5.8
2005	9 170.3			77.0	1 240.5	0.7		12 902.3		2.9
2006	9 209.3			178.8	1 200.3	0.7		13 601.7	0.3	2.9
2007	8 429.9			171.9	1 247.1	0.8		13 374.3	0.4	2.7
2008	7 652.7			166.2	1 252.4	1.3		13 512.8		4.3
2009	9 261.3			16.8	1 190.2	3.8		12 809.8		8.4
2010	8 489.2			12.4	1 093.5	0.8		14 051.2		7.1
2011	9 422.1			12.3	1 196.2	0.6		16 845.3		6.8
2012	8 902.4			17.7	1 030.5	0.6		16 118.5		3.9

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.3f Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Tasmania

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	46.5			499.3	20.0	0.0				
1991	46.5			693.6	10.1	0.0				
1992	46.5			4.1	10.2	0.0				
1993	46.5			0.0	10.8	0.0				
1994	53.6			0.5	11.3	0.0				
1995	53.6			0.0	13.2	0.0				
1996	53.6			0.0	14.4	0.0				
1997	53.6			0.0	13.8	0.0				
1998	53.6			0.0	14.6	0.0				
1999	53.6			5.0	10.9	0.0				
2000	53.6			2.6	8.8	0.0				
2001	53.6			12.4	45.6	0.0				
2002	53.6			46.5	12.4	0.0		65.3		
2003				95.6	85.0			195.3		
2004					9.4			328.9		
2005					13.1			483.2		
2006					13.9			448.8		
2007					13.9			504.3		
2008					13.9	2.6		645.2		1.4
2009					10.4	3.2		411.7		2.4
2010					10.6	2.5		540.6		1.7
2011					10.4	3.8		681.3		1.8
2012					10.3	7.4		647.3		2.0

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.3g Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Northern Territory

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990					264.2			632.4		
1991					250.8			667.8		
1992					215.6			694.5		
1993					200.3			701.3		
1994					204.5			701.9		
1995					211.6			764.2		
1996					226.9			882.0		
1997					242.2			914.5		
1998					256.7			947.2		
1999					277.1			1 022.7		
2000					163.3			1 121.4		
2001					93.4			1 131.8		
2002					91.0			1 173.2		
2003					409.0			728.6		
2004					662.3			856.6		
2005					730.0			840.5		
2006					1 005.1			799.1		
2007					588.7			872.8		
2008					983.4	0.7		827.0		0.5
2009					638.1	0.9		1 059.8		0.6
2010					645.8	0.7		1 253.0		0.6
2011					392.9	1.0		2 220.9		0.6
2012					545.4	2.0		2 226.2		0.5

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.3h Energy emissions—stationary energy, energy industries greenhouse gas (carbon dioxide equivalent) emissions—Australian external territories

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990					3.3					
1991					3.5					
1992					3.3					
1993					5.0					
1994					8.3					
1995					4.7					
1996					8.8					
1997					5.5					
1998					2.1					
1999					5.8					
2000					12.6					
2001					7.1					
2002					7.6					
2003					6.5					
2004					7.4					
2005					7.2					
2006					7.1					
2007					8.4					
2008					26.8					
2009					20.2					
2010					18.1					
2011					36.2					
2012					36.2					

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.4 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 petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	72 850.3	45 199.4	284.0	1 039.6	1 848.0			8 248.9		
1991	74 455.0	47 885.6	179.8	1 164.0	1 787.3			6 193.7		
1992	76 049.4	49 450.8	189.0	375.9	1 695.5			6 770.7		
1993	79 238.5	46 985.3	135.3	389.0	1 700.2			6 987.5		
1994	79 939.5	47 358.0	114.4	366.3	1 741.5			7 492.2		
1995	82 467.9	49 091.5	116.5	349.3	2 025.1			8 572.5		
1996	86 122.9	51 139.4	181.6	403.9	2 057.9			7 757.3		
1997	87 509.5	55 437.8	180.0	329.4	1 618.7			7 595.1		
1998	92 348.7	62 316.2	215.3	165.0	1 584.8		277.4	8 389.5		
1999	94 501.1	65 070.2	160.8	245.8	1 425.9		311.4	9 833.6		
2000	97 176.0	66 113.2	262.2	216.9	1 299.0		382.6	9 822.7	1.0	
2001	103 100.6	65 742.8	261.8	345.9	997.2		453.4	11 559.6	1.7	
2002	106 271.1	63 537.8	125.0	206.3	1 141.6		477.2	11 943.4	0.0	
2003	107 455.9	64 261.9	167.8	265.5	1 686.3		581.1	11 077.5	1.1	
2004	110 509.0	67 584.0	41.6	205.1	2 231.5		597.5	12 282.0	1.4	
2005	111 082.0	66 913.4	41.9	269.2	2 103.3		1 082.6	12 766.2	1.6	
2006	114 128.2	67 425.9	68.0	354.4	2 336.8		1 747.7	12 790.2	1.7	
2007	113 328.7	67 082.2	61.5	374.1	2 211.3		2 117.2	15 490.7	0.6	
2008	114 088.7	66 764.8	136.0	392.8	2 740.2		1 808.2	17 523.5	0.2	
2009	115 925.7	69 023.5	132.9	112.2	2 055.5		1 807.8	15 379.2	4.1	
2010	108 948.7	68 892.2	113.3	100.4	1 977.0		3 090.1	15 440.9	9.1	
2011	102 546.7	67 539.6	115.9	96.6	1 903.1		3 315.9	16 789.6	4.2	
2012	100 580.0	68 821.2	135.9	89.2	1 903.9		5 115.5	16 057.7	2.7	

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

Table E 4.5 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 petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990								261.3		
1991								225.5		
1992								256.2		
1993								297.2		
1994								353.6		
1995								394.5		
1996								415.0		
1997								442.4		
1998								442.3		
1999								487.8		
2000								534.1		
2001								652.2		
2002								724.0		
2003								785.7		
2004								739.5		
2005								806.2		
2006								826.7		
2007								873.0		
2008								878.1		
2009								908.9		
2010								934.6		
2011								970.5		
2012								991.1		

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

PART C: Communication

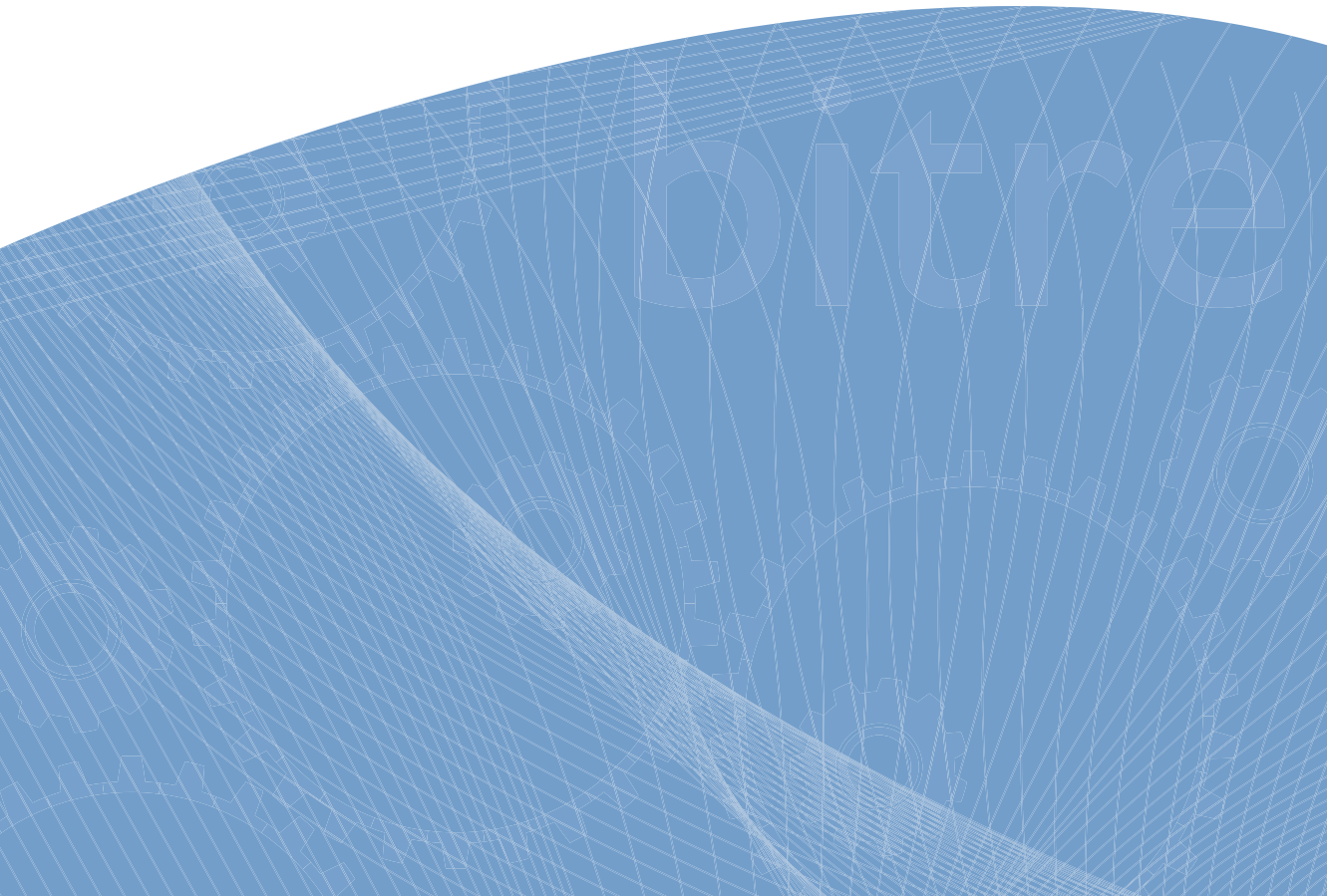
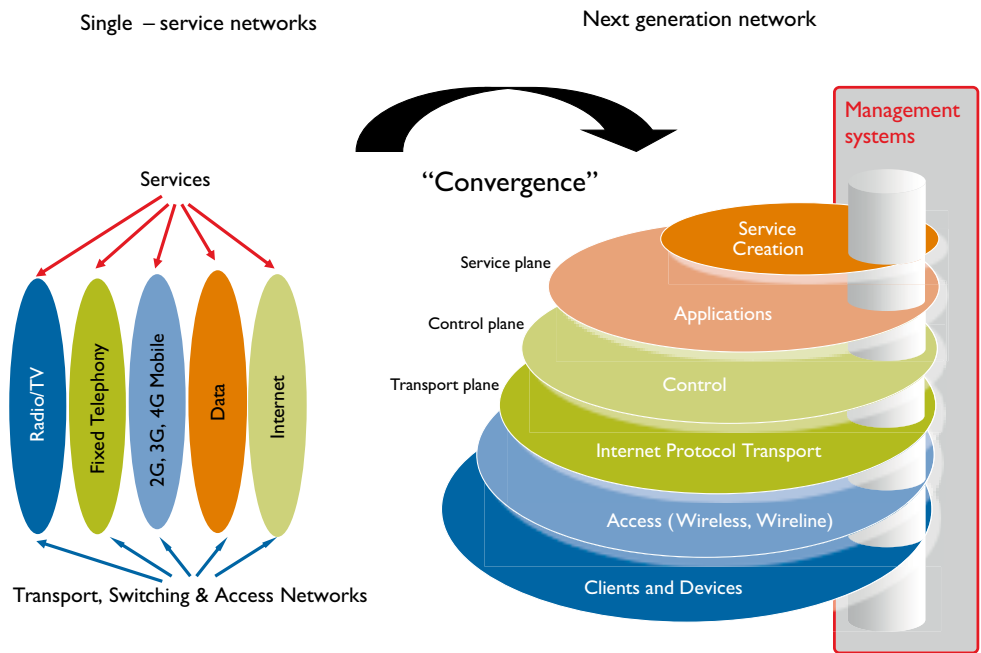


Figure C I Telecommunications networks: traditional and next generation



Source: Adapted from "Developments in next generation applications and services" report, *Australian Communications and Media Authority*, 2011.

PART C

Communication

The study of Australian economic infrastructure focuses on key networks that enable economic activity. Telecommunications networks are a vital part of Australian infrastructure, with communications networks now in a period of significant transition.

Traditional communications architecture was based on vertically integrated separate networks that delivered separate services over a dedicated network (see Figure C I, facing page). Modern communications networks are moving to the use of a more horizontal, next generation network architecture organised into layers of common functions, which allows the delivery of multiple services to a single user device delivered over a common internet protocol based platform.

The upper layers of the diagram (control, applications and service creation) are associated with the presentation of software-based user-focussed features and services, while the lower layers in the diagram are associated with the more physical elements of the communications process. Management systems provide overall management of network interaction between layers. The horizontal architecture allows for competition amongst industry participants operating within a layer.

The phenomenon of communications 'convergence' is not just occurring at the network, service and device level, but also among the previously distinct industries of telecommunications, broadcasting, radio communications and the Internet.

Readers should take these rapid developments in communications technology into account when analysing time series statistics for communications networks.

Where possible, statistics in Part C: Communication of the Australian Infrastructure Statistics Yearbook focus on physical infrastructure networks and their usage, rather than the broader communications industry. For Chapter 2, these distinctions are not possible as data are not available with sufficient detail to separately identify physical infrastructure networks.

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. Chapter 2 of Part C: Communication provides estimates of investment in information technology by the information media and telecommunications industry.

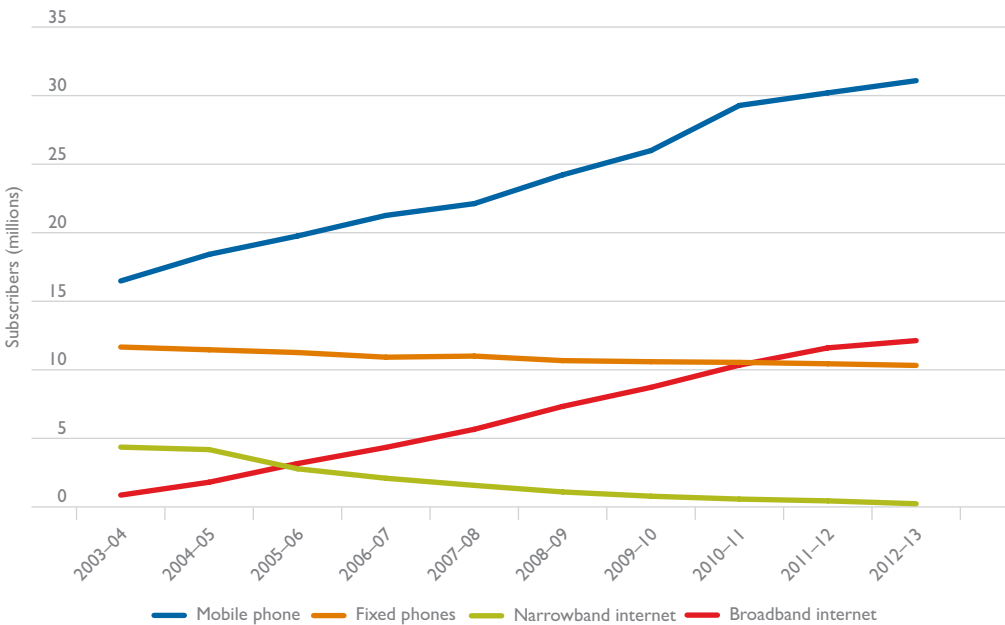
Major drivers of communications infrastructure activity over recent years have been:

- 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

The deployment of the National Broadband Network (NBN) represents a significant investment in a fibre optic network. This investment will be reflected in the statistics over the coming years of the NBN deployment and beyond.

An illustration of the dynamism of the communications sector, Figure C2 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 'narrowband' internet and fixed phones.

Figure C 2 Communications subscribers—number of subscribers, by communications medium



CHAPTER I

Communication infrastructure

Table C I.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

Financial year	Private sector for the private sector	Private sector for the public sector	Public sector	Total major infrastructure engineering construction	Telecommunications percentage of total
	\$ million				per cent
1986–87	28.0	74.7	3 577.4	16 733.1	21.99
1987–88	14.1	56.6	3 309.6	14 914.5	22.66
1988–89	14.9	12.9	3 562.3	14 874.8	24.14
1989–90	11.9	20.0	3 908.6	16 644.1	23.67
1990–91	15.7	37.7	3 971.9	17 165.9	23.45
1991–92	11.8	54.5	3 036.5	15 606.9	19.88
1992–93	119.2	40.0	3 008.4	16 771.1	18.89
1993–94	142.2	53.9	2 716.5	17 814.4	16.35
1994–95	122.4	20.6	3 655.3	18 255.0	20.81
1995–96	321.2	43.6	4 235.1	19 329.6	23.80
1996–97	273.2	11.8	4 213.7	19 377.8	23.22
1997–98	108.9	52.4	4 322.4	21 104.5	21.25
1998–99	176.4	35.3	4 578.8	23 097.3	20.74
1999–00	534.9	207.4	5 308.6	25 041.1	24.16
2000–01	929.6	397.5	4 506.8	22 831.4	25.55
2001–02	529.5	480.5	4 116.4	22 391.0	22.90
2002–03	502.5	406.4	3 661.8	24 769.1	18.45
2003–04	1 056.9	62.4	3 072.7	27 944.3	15.00
2004–05	1 204.7	214.8	3 236.2	32 021.2	14.54
2005–06	1 497.0	73.6	4 328.2	35 439.6	16.65
2006–07	3 865.6	45.0	1 607.1	37 859.4	14.57
2007–08	4 604.4	26.9	^a 7.4	42 370.8	10.95
2008–09	3 935.0	51.7	^a 7.4	48 115.5	8.30
2009–10	3 744.3	182.7	^a 10.4	49 416.6	7.97
2010–11	3 688.6	276.4	^a 6.2	54 454.0	7.29
2011–12	4 366.1	521.4	^a 4.8	60 211.5	8.13
2012–13	4 566.9	783.5	^a 9.3	62 707.5	8.55
2013–14	4 722.3	1 045.1	^a 7.6	57 274.5	10.08

^a Following the third tranche of privatisation of Telstra, ABS classifies Telstra investment as private sector rather than public sector investment.

Source: ABS (2014e), adjusted by chain volume index.

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	Telecommunications 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 telecommunications industry
\$ million						
2007–08	455	24	5 804	^b 160	^c 773	7 215
2008–09	464	^b 19	np	np	^c 872	8 424
2009–10	427	^b 26	6 693	^b 171	^c 591	7 908
2010–11	421	^b 34	7 095	^b 209	^c 610	8 370
2011–12	317	^b 17	7 831	^b 170	^c 696	9 030
2012–13	262	^b 21	9 458	261	^c 561	10 563

^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 (2014a).

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	Telecommunications 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 telecommunications industry
\$ million						
2007–08	1 312	26	np	585	549	8 637
2008–09	475	np	np	np	760	8 591
2009–10	447	np	6 725	226	725	8 165
2010–11	376	- 137	7 278	^b 314	602	8 436
2011–12	203	25	8 056	413	770	9 470
2012–13	262	np	np	np	619	10 922

^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 (2014a).

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	Telecommunications 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 telecommunications industry
\$ million						
2007–08	769	33 ^b	5 833	222	974	7 832
2008–09	821	10	6 107	^c 154	740	7 833
2009–10	749	22	6 306	179	783	8 039
2010–11	793	32	6 552	^b 207	700	8 283
2011–12	950	25	6 535	305	746	8 561
2012–13	1 152	24	6 863	^b 282	770	9 092

^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 (2014a).

CHAPTER 2

Investment in information technology

Table C 2.1 Investment in information technology—information media and telecommunications industry⁸ investment in information technology gross fixed capital formation¹, chain volume measures

Financial year	Information media and telecommunications industry investment in IT Computers and peripherals	Electrical and electronic equipment	Intellectual property products—Computer software	TOTAL investment in IT by the information media and telecommunications industry	Total Australian investment in information technology	Information media and telecommunications industry percentage of total
	\$ million				per cent	
1971–72	0	42	1	43	470	9.15
1972–73	0	64	1	65	507	12.82
1973–74	0	70	1	71	533	13.32
1974–75	0	67	2	69	530	13.02
1975–76	0	43	2	45	565	7.96
1976–77	0	51	2	53	562	9.43
1977–78	0	45	2	47	595	7.90
1978–79	0	48	4	52	667	7.80
1979–80	0	50	5	55	671	8.20
1980–81	0	60	8	68	819	8.30
1981–82	1	67	10	78	936	8.33
1982–83	1	71	14	86	913	9.42
1983–84	1	122	18	141	1 324	10.65
1984–85	1	155	22	178	1 498	11.88
1985–86	2	244	31	277	1 747	15.86
1986–87	2	197	30	229	1 970	11.62
1987–88	2	208	61	271	2 135	12.69
1988–89	3	257	56	316	2 344	13.48
1989–90	5	392	79	476	2 761	17.24
1990–91	6	348	90	444	2 636	16.84
1991–92	7	399	114	520	2 979	17.46
1992–93	12	586	194	792	3 744	21.15
1993–94	6	355	234	595	3 932	15.13
1994–95	14	479	225	718	4 328	16.59
1995–96	22	580	288	890	4 878	18.25
1996–97	31	690	281	1 002	5 856	17.11
1997–98	30	543	334	907	7 127	12.73
1998–99	48	605	382	1 035	7 592	13.63
1999–00	77	965	433	1 475	9 818	15.02
2000–01	98	1 250	580	1 928	11 358	16.97
2001–02	83	1 007	613	1 703	11 809	14.42
2002–03	87	1 010	593	1 690	14 501	11.65
2003–04	89	959	638	1 686	16 744	10.07
2004–05	128	1 201	638	1 967	18 852	10.43
2005–06	154	1 086	755	1 995	20 765	9.61
2006–07	191	1 567	577	2 335	23 222	10.06
2007–08	287	1 651	561	2 499	26 978	9.26
2008–09	317	1 762	580	2 659	27 366	9.72
2009–10	469	1 776	667	2 912	28 032	10.39
2010–11	553	1 939	772	3 264	31 017	10.52
2011–12	686	2 544	834	4 064	34 644	11.73
2012–13	850	2 427	1 246	4 523	41 850	10.81

¹ See end notes.

⁸ Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2.
Source: ABS (2013a).

Table C 2.2 Consumption of information technology—information media and telecommunications industry⁸ consumption of information technology fixed capital², 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
1971–72	0	39	0	39	313	12.46
1972–73	0	40	0	40	329	12.16
1973–74	0	43	0	43	350	12.29
1974–75	0	45	1	46	367	12.53
1975–76	0	46	1	47	384	12.24
1976–77	0	46	1	47	404	11.63
1977–78	0	46	1	47	422	11.14
1978–79	0	46	1	47	444	10.59
1979–80	0	46	2	48	469	10.23
1980–81	0	47	3	50	499	10.02
1981–82	0	48	4	52	540	9.63
1982–83	0	50	5	55	583	9.43
1983–84	0	55	7	62	634	9.78
1984–85	1	63	9	73	711	10.27
1985–86	1	78	11	90	807	11.15
1986–87	1	93	15	109	923	11.81
1987–88	1	106	19	126	1 057	11.92
1988–89	2	120	25	147	1 210	12.15
1989–90	2	142	34	178	1 419	12.54
1990–91	3	168	46	217	1 668	13.01
1991–92	4	191	60	255	1 930	13.21
1992–93	5	224	81	310	2 244	13.81
1993–94	7	252	110	369	2 595	14.22
1994–95	8	272	140	420	2 948	14.25
1995–96	10	302	170	482	3 306	14.58
1996–97	14	339	200	553	3 708	14.91
1997–98	18	372	229	619	4 204	14.72
1998–99	24	398	261	683	4 768	14.32
1999–00	35	446	294	775	5 466	14.18
2000–01	50	526	337	913	6 347	14.38
2001–02	63	604	388	1 055	7 291	14.47
2002–03	73	662	438	1 173	8 367	14.02
2003–04	81	712	488	1 281	9 703	13.20
2004–05	91	768	537	1 396	11 252	12.41
2005–06	106	825	588	1 519	12 983	11.70
2006–07	127	899	623	1 649	14 873	11.09
2007–08	161	997	631	1 789	17 057	10.49
2008–09	205	1 095	629	1 929	19 302	9.99
2009–10	262	1 185	628	2 075	21 297	9.74
2010–11	335	1 274	638	2 247	23 234	9.67
2011–12	422	1 396	662	2 480	25 332	9.79
2012–13	527	1 534	725	2 786	27 959	9.96

² See end notes.

⁸ Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2.

Source: ABS (2013a).

Table C 2.3 Stock of information technology—information media and telecommunications industry⁸ net capital stock³ of information technology assets, 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
1971–72	0	270	2	272	2 921	9.31
1972–73	0	290	2	292	3 067	9.52
1973–74	0	312	3	315	3 218	9.79
1974–75	0	330	4	334	3 348	9.98
1975–76	0	324	5	329	3 496	9.41
1976–77	0	325	7	332	3 625	9.16
1977–78	0	320	8	328	3 766	8.71
1978–79	0	320	11	331	3 955	8.37
1979–80	1	320	14	335	4 122	8.13
1980–81	1	329	20	350	4 401	7.95
1981–82	1	343	27	371	4 753	7.81
1982–83	2	359	37	398	5 041	7.90
1983–84	2	418	50	470	5 670	8.29
1984–85	3	499	63	565	6 396	8.83
1985–86	4	650	84	738	7 268	10.15
1986–87	4	741	102	847	8 255	10.26
1987–88	5	830	146	981	9 273	10.58
1988–89	7	952	179	1 138	10 332	11.01
1989–90	9	1 177	228	1 414	11 605	12.18
1990–91	11	1 335	275	1 621	12 518	12.95
1991–92	13	1 518	333	1 864	13 510	13.80
1992–93	19	1 842	455	2 316	14 940	15.50
1993–94	18	1 922	588	2 528	16 204	15.60
1994–95	23	2 098	681	2 802	17 497	16.01
1995–96	34	2 343	803	3 180	18 903	16.82
1996–97	49	2 659	887	3 595	20 861	17.23
1997–98	59	2 808	995	3 862	23 566	16.39
1998–99	82	3 007	1 121	4 210	26 271	16.03
1999–00	124	3 524	1 261	4 909	30 433	16.13
2000–01	173	4 270	1 509	5 952	35 342	16.84
2001–02	195	4 701	1 733	6 629	39 785	16.66
2002–03	210	5 085	1 899	7 194	46 016	15.63
2003–04	220	5 369	2 072	7 661	53 335	14.36
2004–05	260	5 847	2 198	8 305	61 276	13.55
2005–06	316	6 167	2 379	8 862	69 788	12.70
2006–07	388	6 909	2 334	9 631	78 741	12.23
2007–08	527	7 636	2 258	10 421	89 235	11.68
2008–09	646	8 345	2 208	11 199	97 704	11.46
2009–10	850	8 925	2 258	12 033	104 577	11.51
2010–11	1 066	9 580	2 396	13 042	112 315	11.61
2011–12	1 330	10 728	2 570	14 628	121 655	12.02
2012–13	1 653	11 622	3 091	16 366	135 545	12.07

⁸ Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2.

³ See end notes.

Source: ABS (2013a).

CHAPTER 3

Subscribers and providers

Table C 3.1 Communications subscribers—number of services, by communications medium

End of financial year	Number of payphones	Terrestrial mobile	Fixed line	Internet		Total
				Narrowband	Broadband	
				Number of subscribers (millions)		
2003–04 ⁱ	64 803	16.48	11.66	^h 4.36	^h 0.86	^h 5.22
2004–05 ⁱ	61 735	18.42	11.46	^h 4.18	^h 1.80	^h 5.98
2005–06 ^j	58 230	19.76	11.26	2.78	3.16	5.95
2006–07	49 862	21.26	10.92	^h 2.09	^h 4.34	^h 6.43
2007–08	45 114	22.12	11.00	1.57	5.66	7.23
ISPs with more than 1 000 active subscribers						
2008–09 ^k	39 328	24.22	10.67	1.09	7.33	8.42
2009–10	35 012	25.99	10.59	0.78	8.72	9.50
2010–11	33 201	29.28	10.54	0.57	10.34	10.91
2011–12	31 032	30.20	10.44	0.44	11.60	12.04
2012–13	29 523	31.09	10.32	0.23	12.13	12.36

^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 1 000 active subscribers.

Source: ABS (2014h), ACMA (2013).

Table C 3.2 Communications subscribers—total number of subscribers for terrestrial mobile services

End of financial year	Total number of subscribers (millions)
2003–04	16.48
2004–05	18.42
2005–06	19.76
2006–07	21.26
2007–08	22.12
2008–09	24.22
2009–10	25.99
2010–11	29.28
2011–12	30.20
2012–13	31.09

Source: ACMA (2013).

Table C 3.3a Communications subscribers—number of internet subscribers, by download speed—business and government subscribers

	Less than 256kbps	256kbps to less than 1.5Mbps	1.5Mbps to less than 8Mbps	Broadband 8Mbps to less than 24Mbps	24Mbps or greater	Total broadband	Total business and government subscribers
<i>Number of subscribers ('000)</i>							
Census of all ISPs							
September 2000							432
September 2001							559
September 2002							650
September 2003	528	143	np	np	np	168	696
September 2004	535	224	np	np	np	311	846
March 2005	447	281	np	np	np	398	845
September 2006	279	394	np	np	np	547	826
December 2007	268	362	224	95	17	697	965
December 2008	234	329	538	175	45	1 087	1 321
ISPs with more than 1 000 active subscribers							
December 2009	188	273	911	219	37	1 440	1 629
December 2010	189	175	1 200	697	73	2 144	2 333
December 2011	96	60	1 818	388	292	2 558	2 654
December 2012	73	24	np	1 047	np	2 836	2 910
December 2013	53	15	np	838	np	2 663	2 717

Note: Data are not readily available for missing years.

np not available for publication but included in the totals.

Source: ABS (2014h).

Table C 3.3b Communications subscribers—number of internet subscribers, by download speed—household subscribers

	Less than 256kbps	256kbps to less than 1.5Mbps	1.5Mbps to less than 8Mbps	Broadband 8Mbps to less than 24Mbps	24Mbps or greater	Total broadband	Total household subscribers
<i>Number of subscribers ('000)</i>							
Census of all ISPs							
September 2000							3 417
September 2001							3 731
September 2002							3 904
September 2003	4 027	346	np	np	np	488	4 516
September 2004	3 916	612	np	np	np	979	4 895
March 2005	3 746	906	np	np	np	1 388	5 135
September 2006	2 478	2 374	np	np	np	3 353	5 831
December 2007	1 619	2 340	821	1 198	163	4 522	6 141
December 2008	1 084	2 311	1 474	1 478	329	5 591	6 675
ISPs with more than 1 000 active subscribers							
December 2009	717	2 109	2 277	1 754	466	6 605	7 322
December 2010	518	1 066	2 867	2 833	828	7 595	8 112
December 2011	379	748	3 297	3 597	922	8 563	8 942
December 2012	215	585	np	4 358	np	9 037	9 251
December 2013	156	317	np	4 770	np	9 524	9 680

Note: Data are not readily available for missing years.

np not available for publication but included in the totals.

Source: ABS (2014h).

Table C 3.3c Communications subscribers—number of internet subscribers, by download speed—total all subscribers

	Less than 256kbps	256kbps to less than 1.5Mbps	1.5Mbps to less than 8Mbps	Broadband		Total broadband	Total all subscribers
				8Mbps to less than 24Mbps	24Mbps or greater		
<i>Number of subscribers ('000)</i>							
Census of all ISPs							
September 2000							3 849
September 2001							4 289
September 2002							4 555
September 2003	4 554	489	np	np	np	656	5 211
September 2004	4 451	836	np	np	np	1 290	5 741
March 2005	4 193	1 187	np	np	np	1 787	5 980
September 2006	2 757	2 768	np	np	np	3 900	6 657
December 2007	1 887	2 702	1 045	1 293	180	5 218	7 105
December 2008	1 319	2 640	2 012	1 653	373	6 678	7 996
ISPs with more than 1 000 active subscribers							
December 2009	905	2 381	3 188	1 973	503	8 046	8 951
December 2010	707	1 241	4 067	3 530	901	9 739	10 446
December 2011	475	808	5 115	3 985	1 213	11 121	11 596
December 2012	288	609	4 213	5 406	1 645	11 873	12 161
December 2013	210	332	4 159	5 608	2 088	12 187	12 397

Note: Data are not readily available for missing years.

np not available for publication but included in the totals.

Source: ABS (2014h).

Table C 3.4 Communications subscribers—number of internet subscribers, by access connection

	Dial-up	Non dial-up							Total all sub- scribers	
	DSL	Cable and fibre	Satellite	Wireless (excluding mobile handset connections)			Other	Com- bined conn- ections		
				Fixed	Mobile	Total wireless (excluding mobile handset connections)				
Number of subscribers ('000)										
Census of all ISPs										
September 2000	3 745	6	np	np				np		3 849
September 2001	4 088	30	np	np				np		4 273
September 2002	4 204	127	np	np				np		4 555
September 2003	4 522	372	np	np	np	3	8	np		5 211
September 2004	4 441	822	np	np	np	9	15	np		5 741
March 2005	4 177	1 256	np	np	np	7	38	np		5 980
September 2006	2 749	2 995	np	np	np	np	186	np	727	6 657
December 2007	1 887	3 815	np	np	np	np	481	np	922	7 105
December 2008	1 311	4 208	916	80	np	1 369	1 462	19	na	7 996
ISPs with more than 1000 active subscribers										
December 2009	891	4 178	np	107	22	2 838	2 860	np	na	8 951
December 2010	707	4 458	np	np	24	4 230	4 254	np	na	10 446
December 2011	473	4 553	937	100	35	5 491	5 526	8	na	11 596
December 2012	282	4 727	1 009	92	49	5 995	6 044	7	na	12 161
December 2013	205	4 898	1 111	91	48	6 040	6 088	3	na	12 397

np not available for publication but included in the totals.

na not applicable.

Note: Data are not readily available for missing years.

Source: ABS (2014h).

Table C 3.5 Communications providers—number of internet service providers (ISP), by size

	Very small	Small	Medium	Large	Very large	Total
	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

Note: Data are not readily available for missing years.

Source: ABS (2014h).

CHAPTER 4

Price and activity

Table C 4.1 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
<i>base of each index: 2011–12 = 100</i>									
1980–81	59.1	60.5	57.1	59.8	58.7	59.9	66.7	60.5	59.5
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
1993–84	74.9	76.6	71.9	75.7	74.4	75.5	84.6	76.8	75.3
1994–85	78.0	79.9	74.6	78.9	77.5	78.6	88.1	80.0	78.4
1995–86	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	100.3
2013–14	102.7	102.8	102.9	102.8	102.5	102.8	102.6	102.7	102.7

Source: ABS (2014d).

Table C 4.2 Communication activity—internet domain names registered, excluding “.gov.au” and community geographic domain names

End of financial year	com.au	net.au	org.au <i>number</i>	asn.au	id.au	Total (.au)
2001–02	255 408	12 794	9 203	2 832	0	280 237
2002–03	308 423	20 149	13 279	3 198	2 527	347 576
2003–04	382 994	34 391	17 480	3 581	4 682	443 128
2004–05	477 376	46 727	18 562	2 800	5 826	551 291
2005–06	612 918	60 000	23 406	3 058	6 746	706 128
2006–07	795 368	79 783	28 363	3 166	8 091	914 771
2007–08	1 009 347	112 555	34 167	3 483	8 954	1 168 506
2008–09	1 221 915	140 364	41 323	3 842	9 853	1 417 297
2009–10	1 513 617	185 029	45 536	4 196	10 917	1 759 295
2010–11	1 818 353	230 437	50 143	4 111	12 086	2 115 130
2011–12	2 102 823	266 511	54 736	4 105	12 798	2 441 240
2012–13	2 309 521	287 603	59 415	4 005	13 156	2 673 939

Source: AusRegistry (2013).

Table C 4.3 Communication activity—internet commerce

Financial year	Proportion of all businesses which:		Internet income \$ billion
	Placed orders via the internet or web	Received orders via the internet or web	
	per cent		
1999–00	4.0	6.0	5.1
2000–01	20.0	9.0	9.4
2001–02	25.0	6.0	11.3
2002–03	27.8	13.3	24.3
2003–04	31.3	12.0	33.3
2004–05	32.7	12.2	39.6
2005–06	37.3	20.9	56.7
2006–07	39.8	23.3	67.6
2007–08	42.7	23.7	81.0
2008–09	46.0	27.1	122.9
2009–10	46.5	24.8	142.8
2010–11	50.8	28.0	188.7
2011–12	55.3	27.8	237.1

Source: ABS (2011b), ABS (2013c).

Table C 4.4 Communication activity—internet use—volume of data downloaded by subscriber type, for ISPs with more than 1000 active subscribers

Quarter ending	Dial-up	Fixed line broadband	Wireless broadband	Total	Business and government	Household	Total
<i>Terabytes</i>							
September 2000				981	437	544	981
September 2001				1 227	466	762	1 227
September 2002				2 841	690	2 152	2 841
September 2003	1 430			4 322	1 117	3 204	4 322
September 2004	1 667			10 557	2 259	8 298	10 557
March 2005	1 820			13 625	3 252	10 372	13 625
September 2006	2 216			36 148	6 733	29 415	36 148
December 2007	2 693			59 332	6 247	53 084	59 331
December 2008	1 079			81 352	15 180	66 172	81 352
December 2009	294	113 410	14 251	127 954			
December 2010	183	174 665	16 990	191 839			
December 2011	96	322 280	23 142	345 518			
December 2012	np	526 472	28 196	554 771			
December 2013	73	823 421	37 426	860 920			

np not available for publication but included in totals where applicable.

Note: Data not available for missing years.

Source: ABS (2014h).

CHAPTER 5

Communications security

Table C 5.1 Communication security—do not call register

	Telephone numbers listed on register, by prefix						Total numbers listed	Complaints received relating to potential breaches of the DNCR Act
	(01) Satellite, (05) VOIP	(02) NSW, ACT	(03) VIC, TAS	(04) Mobile	(07) QLD	(08) WA, SA, NT		
Number '000								
May—June 2007							1 370	2.3
2007–08	0.5	459.3	484.0	750.2	411.4	314.6	2 420	28.8
2008–09	0.8	603.7	653.9	1 369.9	509.4	403.4	3 541	10.6
2009–10	1.5	821.2	872.5	2 153.8	663.9	519.4	5 032	11.3
2010–11	2.2	1 057.9	1 095.2	2 862.9	853.2	656.1	6 528	19.7
2011–12							7 730	22.0
2012–13							8 740	19.7

Note: Data not available for missing years.

Source: ACMA (2013).

Table C 5.2 Communication security—000 and 112 Emergency call services call handling

	Caller no response (CNR)		Calls aborted by caller before being answered	Calls aborted by caller after being answered (non-CNR)	Calls transferred to emergency service organisations	Total number of 000 and 112 emergency calls
	CNR calls terminated by Interactive Voice Response (IVR)	CNR calls connected to police through IVR				
2000–01						
2001–02					5 727 775	9 709 377
2002–03					3 948 657	11 332 701
2003–04	5 449 511	145 397	835 966	2 294 635	4 015 738	12 741 247
2004–05	4 241 385	163 330	693 745	1 512 737	4 196 430	10 807 627
2005–06	3 706 705	179 409	963 606	2 167 537	4 571 520	11 588 777
2006–07	2 990 652	216 863	1 079 821	2 718 333	5 133 857	12 139 526
2007–08	2 612 893	211 356	1 126 190	2 860 558	5 409 199	12 220 196
2008–09	¹	¹	¹	¹	5 352 425	10 301 011
2009–10					5 288 836	8 833 683
2010–11					5 354 680	8 867 191
2011–12					5 561 072	9 429 595
2012–13					5 727 411	8 854 728

¹ Data are no longer reported in the ACMA Communications Report.

Source: ACMA (2013).

PART W: Water

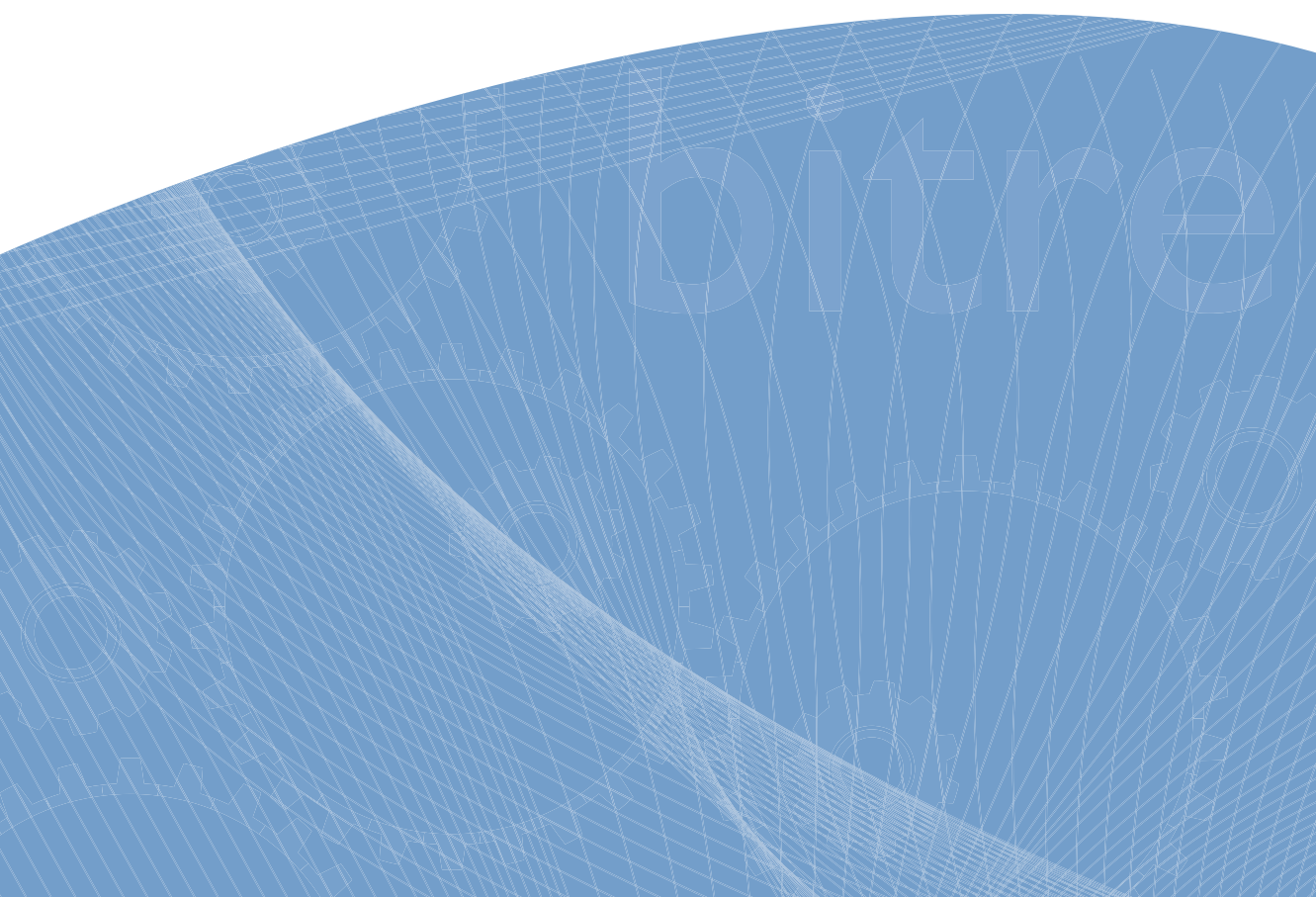
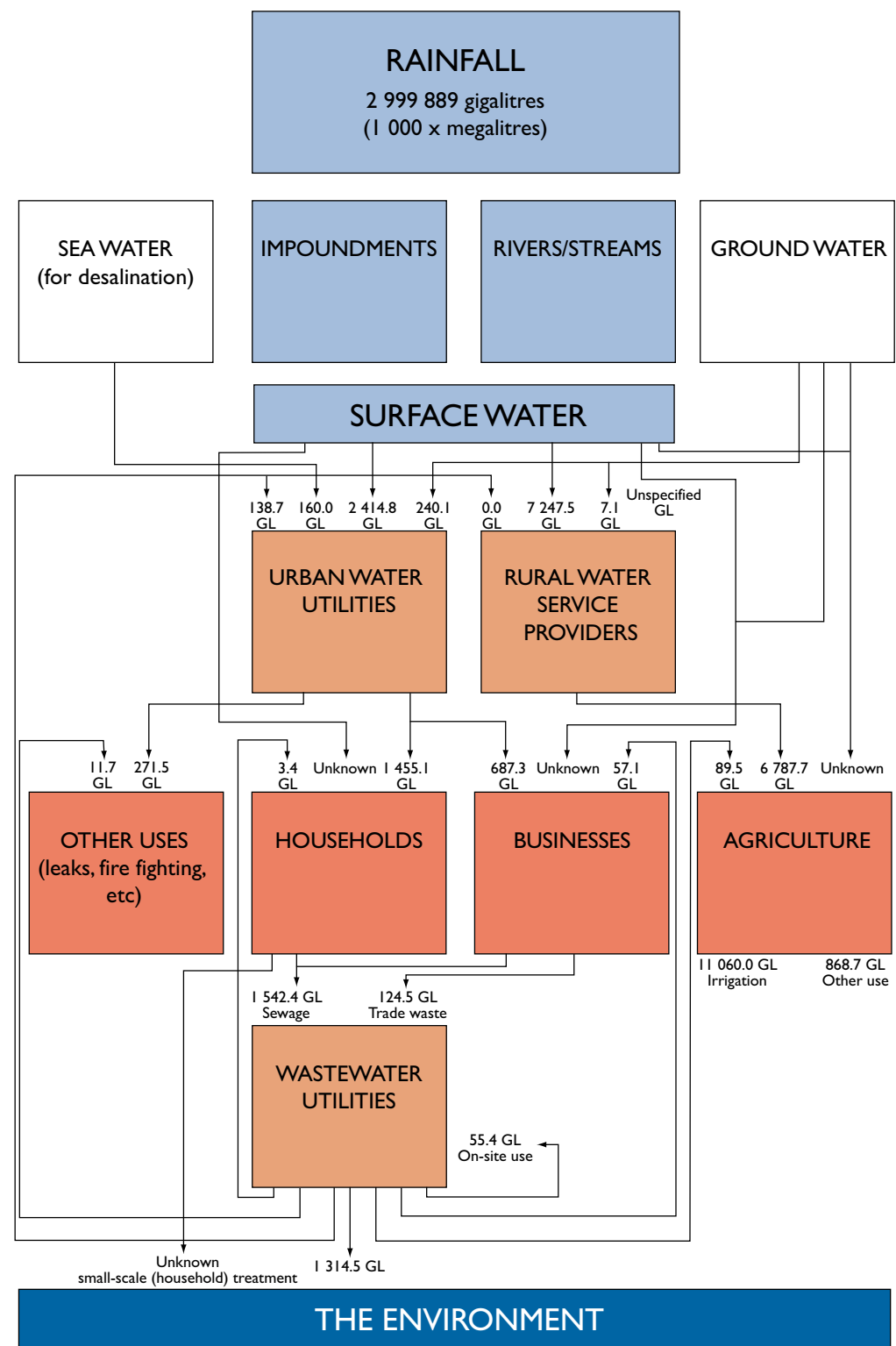


Figure W I Water: Australian sources and uses, 2012–13

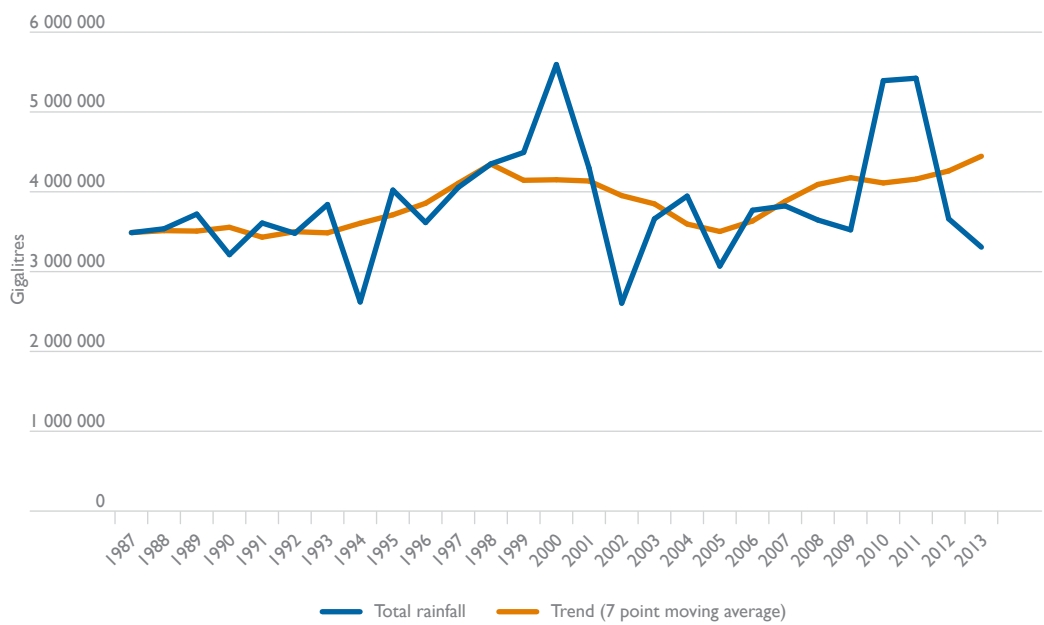


PART W

Water

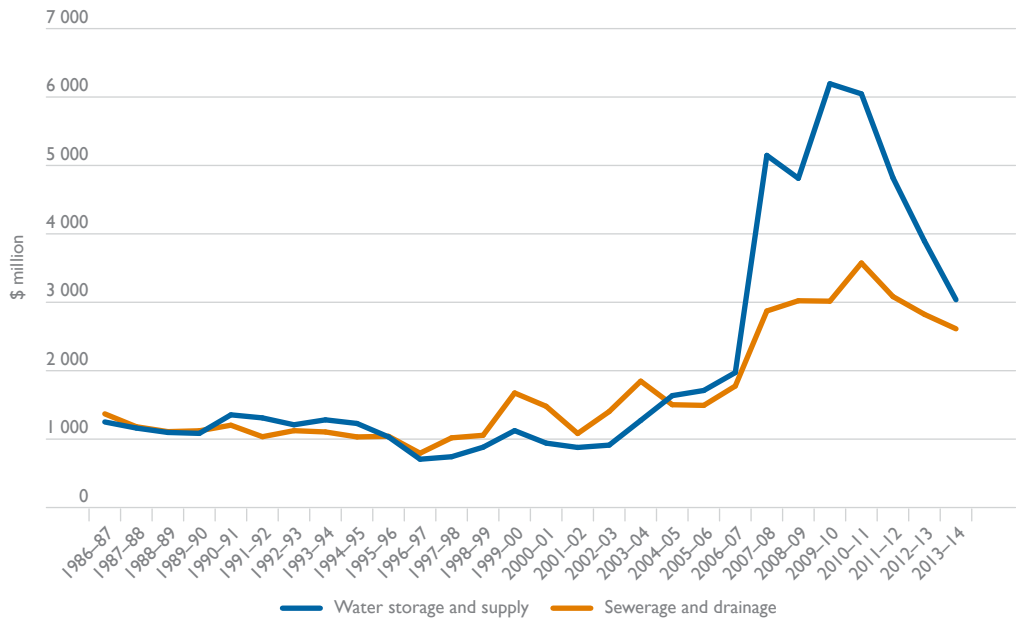
Australian water utilities use infrastructure networks to provide water to urban and rural areas and to provide wastewater collection and treatment services to large areas of the country. Part W: Water provides both physical and financial measures of water infrastructure, inputs to water supply and wastewater treatment activity, water supply and wastewater treatment activity, and measures of water health and emissions issues.

Figure W 2 Total volume of rainfall in Australia



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 two years rainfall decreased sharply to finish below trend.

Figure W 3 Water infrastructure engineering construction, adjusted by chain volume index



Infrastructure construction activity was relatively constant (in chain volume adjusted terms) until about 2002–03. Since 2003–04, water infrastructure construction expenditure has increased sharply in real terms, particularly for water storage and supply projects, which reflect construction work on the South-East Queensland water grid and the construction of a desalination plants in Western Australia, New South Wales, Queensland and Victoria. Expenditure on the construction of water storage and supply decreased with the recent completion of these projects.

CHAPTER I

Water infrastructure

Table W I.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

Financial year	Water storage and supply	Sewerage and drainage	Total major infrastructure engineering construction	Water percentage of total
	\$ million			per cent
1986–87	103.1	78.6	2 118.6	8.58
1987–88	117.9	120.7	2 341.3	10.19
1988–89	126.1	124.0	2 553.8	9.80
1989–90	139.9	103.2	2 776.9	8.75
1990–91	178.8	167.1	2 615.3	13.22
1991–92	103.2	97.6	2 475.3	8.11
1992–93	141.2	128.0	2 613.8	10.30
1993–94	248.2	188.1	3 248.6	13.43
1994–95	449.9	122.4	3 232.6	17.70
1995–96	418.8	244.3	4 192.3	15.82
1996–97	198.6	123.8	4 391.1	7.34
1997–98	225.3	165.6	5 600.7	6.98
1998–99	227.3	124.9	6 468.0	5.45
1999–00	262.5	228.6	6 855.3	7.16
2000–01	273.1	283.3	6 168.8	9.02
2001–02	206.4	227.2	6 513.2	6.66
2002–03	231.6	397.0	8 814.3	7.13
2003–04	402.3	659.6	12 282.0	8.65
2004–05	459.8	384.2	14 054.0	6.00
2005–06	554.0	394.4	14 579.1	6.50
2006–07	539.3	411.4	17 652.5	5.39
2007–08	785.5	935.8	19 029.0	9.05
2008–09	598.3	1 022.0	20 326.5	7.97
2009–10	1 779.4	529.4	19 339.1	11.94
2010–11	2 994.8	662.9	23 867.1	15.33
2011–12	2 030.3	677.8	28 561.4	9.48
2012–13	1 427.3	630.1	32 458.6	6.34
2013–14	1 247.2	582.4	31 056.9	5.89

Source: ABS (2014e), adjusted by chain volume index.

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

Financial year	Water storage and supply	Sewerage and drainage	Total major infrastructure engineering construction	Water percentage of total
	\$ million			per cent
1986–87	405.3	373.6	4 893.7	15.92
1987–88	366.8	376.0	3 609.7	20.58
1988–89	285.2	316.9	3 242.9	18.57
1989–90	248.6	369.7	3 478.5	17.77
1990–91	370.8	411.3	4 264.3	18.34
1991–92	506.2	298.5	4 342.0	18.53
1992–93	409.1	384.1	4 699.8	16.88
1993–94	582.9	436.7	5 502.9	18.53
1994–95	370.2	403.5	4 810.5	16.08
1995–96	287.5	417.6	4 693.8	15.02
1996–97	282.5	351.7	5 202.5	12.19
1997–98	244.4	432.5	5 749.1	11.77
1998–99	286.6	494.8	6 142.5	12.72
1999–00	362.3	984.0	6 567.6	20.50
2000–01	296.2	826.2	6 095.0	18.41
2001–02	316.8	509.8	5 368.2	15.40
2002–03	263.3	612.7	5 503.1	15.92
2003–04	488.3	787.3	5 454.0	23.39
2004–05	758.8	684.6	7 320.0	19.72
2005–06	748.6	518.7	7 862.8	16.12
2006–07	827.2	614.3	8 258.2	17.46
2007–08	3 345.9	1 131.4	11 763.2	38.06
2008–09	3 267.6	1 170.4	14 400.0	30.82
2009–10	2 950.7	1 468.8	14 944.4	29.57
2010–11	1 596.4	1 636.5	15 713.6	20.57
2011–12	1 360.6	1 214.3	16 256.7	15.84
2012–13	1 110.4	856.1	15 835.2	12.42
2013–14	683.6	924.2	14 423.6	11.15

Source: ABS (2014e), adjusted by chain volume index.

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

Financial year	Water storage and supply	Sewerage and drainage	Total major infrastructure engineering construction	Water percentage of total
	\$ million			per cent
1986–87	742.2	916.9	9 720.8	17.07
1987–88	676.8	684.2	8 963.6	15.18
1988–89	685.9	668.4	9 078.1	14.92
1989–90	695.4	648.9	10 388.8	12.94
1990–91	805.2	624.9	10 286.2	13.90
1991–92	700.8	639.1	8 789.6	15.24
1992–93	659.3	611.4	9 457.5	13.44
1993–94	450.6	479.7	9 062.9	10.26
1994–95	408.6	506.2	10 211.9	8.96
1995–96	326.0	379.2	10 443.5	6.75
1996–97	225.0	318.7	9 784.2	5.56
1997–98	272.6	420.6	9 754.7	7.11
1998–99	367.7	435.9	10 486.8	7.66
1999–00	499.1	462.1	11 618.2	8.27
2000–01	371.9	370.4	10 567.5	7.02
2001–02	354.8	345.0	10 509.6	6.66
2002–03	417.2	393.4	10 451.7	7.76
2003–04	382.5	400.1	10 208.2	7.67
2004–05	416.8	434.0	10 647.1	7.99
2005–06	408.3	580.0	12 997.7	7.60
2006–07	606.4	750.4	11 948.7	11.36
2007–08	1 015.5	805.4	11 578.7	15.73
2008–09	945.8	830.0	13 389.1	13.26
2009–10	1 464.1	1 017.7	15 133.2	16.40
2010–11	1 455.0	1 274.6	14 873.3	18.35
2011–12	1 428.6	1 191.3	15 393.5	17.02
2012–13	1 355.9	1 337.1	14 413.7	18.68
2013–14	1 106.8	1 105.6	11 794.0	18.76

Source: ABS (2014e), adjusted by chain volume index.

Table W 1.1d Flow of new infrastructure—total value of water infrastructure engineering construction work done, adjusted by chain volume index

Financial year	Water storage and supply	Sewerage and drainage	Total major infrastructure engineering construction	Water percentage of total
	\$ million			per cent
1986–87	1 250.6	1 369.1	16 733.1	15.66
1987–88	1 161.5	1 181.0	14 914.5	15.71
1988–89	1 097.3	1 109.3	14 874.8	14.83
1989–90	1 083.9	1 121.7	16 644.1	13.25
1990–91	1 354.8	1 203.3	17 165.9	14.90
1991–92	1 310.2	1 035.2	15 606.9	15.03
1992–93	1 209.5	1 123.5	16 771.1	13.91
1993–94	1 281.7	1 104.5	17 814.4	13.39
1994–95	1 228.7	1 032.0	18 255.0	12.38
1995–96	1 032.2	1 041.1	19 329.6	10.73
1996–97	706.2	794.1	19 377.8	7.74
1997–98	742.3	1 018.8	21 104.5	8.34
1998–99	881.7	1 055.7	23 097.3	8.39
1999–00	1 123.9	1 674.7	25 041.1	11.18
2000–01	941.3	1 479.8	22 831.4	10.60
2001–02	878.1	1 082.1	22 391.0	8.75
2002–03	912.1	1 403.2	24 769.1	9.35
2003–04	1 273.1	1 847.0	27 944.3	11.17
2004–05	1 635.4	1 502.7	32 021.2	9.80
2005–06	1 710.8	1 493.1	35 439.6	9.04
2006–07	1 972.9	1 776.0	37 859.4	9.90
2007–08	5 146.9	2 872.6	42 370.8	18.93
2008–09	4 811.7	3 022.3	48 115.5	16.28
2009–10	6 194.2	3 015.9	49 416.6	18.64
2010–11	6 046.2	3 574.1	54 454.0	17.67
2011–12	4 819.5	3 083.5	60 211.5	13.13
2012–13	3 893.5	2 823.4	62 707.5	10.71
2013–14	3 037.6	2 612.3	57 274.5	9.86

Source: ABS (2014e), adjusted by chain volume index.

Table W 1.2a Stock of infrastructure—current value of Australian water infrastructure, by state or territory—urban water infrastructure assets

End of financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT	Australia
	\$ million								
2004–05									35 431
2005–06	11 994	8 881	6 802	4 711	4 033		492	1 107	39 345
2006–07	13 642	9 109	7 117	4 916	4 912		493	1 261	42 777
2007–08	15 368	9 774	7 427	5 428	5 306	1 325	410	1 623	46 661
2008–09	17 312	10 459	8 759	6 242	6 326		426	1 698	52 547
2009–10	18 855	10 207	11 943	6 283	6 496	1 382	429	1 801	57 395
2010–11	19 660	12 127	13 581	6 760	6 065	1 364	481	2 094	62 134
2011–12	20 023	11 920	13 272	7 187	7 324	1 380	476	2 243	63 825
2012–13	20 731	12 350	18 312	8 375	7 466	1 442	517	2 321	71 515

¹ See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2007b), OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.2b Stock of infrastructure—current value of Australian water infrastructure, by state or territory—waste water & sewerage infrastructure assets

End of financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT	Australia
	\$ million								
2004–05									37 457
2005–06	19 007	9 268	6 868	2 660	4 586		205	1 093	44 611
2006–07	21 468	9 859	7 370	2 949	4 896		210	1 155	48 830
2007–08	26 019	10 595	7 537	3 015	5 087	923	212	1 269	54 658
2008–09	28 923	10 806	9 264	3 171	6 324		227	1 306	60 944
2009–10	29 928	11 526	9 527	3 234	6 733	1 326	233	1 274	63 781
2010–11	31 955	12 984	9 273	3 655	7 059	1 374	261	1 245	67 805
2011–12	33 219	13 046	9 627	3 716	7 274	1 358	272	1 234	69 745
2012–13	40 720	13 693	11 487	3 978	7 366	1 370	289	1 296	80 200

¹ See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2007b), OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.2c Stock of infrastructure—current value of Australian water infrastructure, by state or territory—irrigation and drainage

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
	\$ million								
2004–05									6 181
2005–06									
2006–07	1 036	2 437	2 951	181	88				6 693
2007–08	1 016	2 988	2 951	180	124				7 259
2008–09	1 008	3 016	2 738	180	125				7 066
2009–10	979	4 220	2 835	181	129				8 344
2010–11	1 050	5 770	2 891	177	127				10 015
2011–12	1 132	6 273	2 891	185	128				10 609
2012–13	1 211	6 358	2 891	182	112				10 754

Note: Data are not readily available for missing years.

Source: ABS (2007b), BITRE estimates based on NWC (2014a).

Table W 1.3 Infrastructure capacity—major Australian water storage dams²

End of financial year	Storage capacity	Water held in dams at end of year	Percentage of capacity used
	<i>gigalitres</i>		<i>per cent</i>
1971–72	52 430		
1972–73	52 771		
1973–74	65 644		
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 ³	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

^{2,3} See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2006b), BoM (2014b).

Table W 1.4 Infrastructure capacity—water storage in major dams—actual holdings of major water storage dams, by state/territory

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
				<i>gigalitres</i>				
2001–02	12 206	6 083	6 226	115	11 254	12 494	237	69
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 ³	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

³ See end notes.

Source: ABS (2006b), BOM (2014b).

Table W 1.5a Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—urban water infrastructure assets

End of financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT	Australia
					<i>\$ million</i>				
2005–06	570	337	213	118	468		11	27	1 745
2006–07	698	408	331	125	359		9	22	1 953
2007–08	1 401	584	390	159	254	17	17	52	2 873
2008–09	1 967	1 103	863	565	354		32	95	4 980
2009–10	1 277	981	619	902	629	50	52	164	4 675
2010–11	597	623	498	484	597	71	32	213	3 115
2011–12	572	586	863	462	494	94	24	192	3 287
2012–13	521	557	772	277	430	55	29	110	2 752

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.5b Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—waste water and sewerage infrastructure assets

End of financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT	Australia
					<i>\$ million</i>				
2005–06	617	438	426	33	176		10	6	1 708
2006–07	739	560	479	35	263		14	12	2 103
2007–08	811	694	507	40	408	21	15	22	2 519
2008–09	803	732	610	151	519		16	55	2 885
2009–10	850	812	392	124	359	31	18	23	2 608
2010–11	777	1 020	529	209	158	26	24	21	2 766
2011–12	780	760	608	98	142	40	41	24	2 493
2012–13	653	549	579	110	166	46	45	28	2 176

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.5c Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—irrigation and drainage

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
\$ million									
2005–06									
2006–07	39	167	9	1	27				243
2007–08	38	279	7	1	15				341
2008–09	44	289	5	1	9				348
2009–10	95	82	12	2	6				196
2010–11	102	53	11	0	3				168
2011–12	84	48	11	4	4				151
2012–13	77	45	14	0	0				133

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014a).

Table W 1.6 Stock of infrastructure—number of urban water treatment plants providing full treatment, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	60	152	65	7	17		0	2
2006–07	61	156	65	7	18		0	2
2007–08	62	163	65	7	18	36	0	2
2008–09	66	157	64	7	18		0	2
2009–10	80	152	65	7	18	35	0	2
2010–11	82	150	62	7	18	37	0	2
2011–12	83	166	77	7	22	39	0	2
2012–13	83	171	72	8	22	39	0	2

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.7 Stock of infrastructure—length of urban water mains, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
kilometres								
2005–06	44 049	42 739	23 869	9 263	14 713		1 625	3 004
2006–07	44 295	43 027	24 096	9 357	15 094		1 651	2 954
2007–08	44 606	43 653	25 423	9 640	15 413	5 316	1 672	2 980
2008–09	44 951	44 193	26 266	9 465	15 610		1 704	3 059
2009–10	45 182	44 735	27 812	9 526	15 803	6 321	1 713	3 096
2010–11	45 571	45 301	30 092	9 613	16 072	6 253	1 706	3 134
2011–12	46 150	45 997	33 000	9 617	16 466	6 380	1 744	3 179
2012–13	46 620	45 532	32 582	9 699	16 861	6 409	1 786	3 189

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.8 Water infrastructure—average number of properties served per kilometre of water main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	56.9	50.4	52.3	56.0	51.8		35.1	46.3
2006–07	57.2	50.9	52.7	56.3	51.7		35.7	47.4
2007–08	57.5	51.2	51.4	55.3	51.8	36.3	36.5	47.3
2008–09	57.5	51.4	51.6	57.1	52.3		36.6	47.1
2009–10	58.7	51.8	50.4	57.6	53.0	31.0	35.7	47.2
2010–11	58.9	52.2	49.0	57.9	53.0	31.5	36.5	47.9
2011–12	58.8	52.5	47.3	156.4	53.2	31.5	36.3	48.4
2012–13	58.9	54.0	48.2	156.7	53.0	30.7	35.5	48.3

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.9 Infrastructure quality—average number of water main breaks per 100 kilometres of water main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	29.1	24.7	18.2	20.6	15.7		55.2	43.0
2006–07	25.2	40.4	22.7	26.1	14.1		44.5	48.0
2007–08	21.3	33.9	21.3	24.4	14.0	38.3	42.8	38.0
2008–09	23.2	32.5	17.5	22.9	15.6		64.5	29.2
2009–10	20.7	28.7	20.4	21.6	13.9		58.0	23.6
2010–11	20.4	28.2	15.8	17.7	12.7		42.2	26.7
2011–12	17.1	24.1	13.0	17.2	12.2		40.9	24.7
2012–13	21.7	19.1	13.2	17.1	13.3		17.0	20.0

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.10 Stock of infrastructure—number of sewage treatment plants providing full treatment, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	160	185	67	6	18		7	2
2006–07	165	184	66	6	18		7	2
2007–08	164	185	64	6	18	76	7	2
2008–09	164	197	78	7	18		7	2
2009–10	166	196	85	7	18	109	7	2
2010–11	156	196	99	7	19	110	7	2
2011–12	159	201	113	7	20	110	7	3
2012–13	163	202	105	7	22	110	7	5

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.11 Stock of infrastructure—length of sewerage mains and channels, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>kilometres</i>								
2005–06	40 310	33 101	17 570	7 443	11 862		866	2 985
2006–07	40 393	33 533	17 645	7 492	12 146		877	2 993
2007–08	41 090	34 135	18 249	7 530	12 459	4 118	884	3 014
2008–09	41 481	34 500	18 385	7 584	12 685		914	3 059
2009–10	41 790	35 133	18 441	7 648	12 819	4 657	941	3 094
2010–11	42 254	35 623	19 933	7 701	13 031	4 535	954	3 134
2011–12	43 040	36 178	27 090	7 725	13 356	4 774	958	3 174
2012–13	42 999	36 685	27 306	7 759	13 778	4 802	966	3 206

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.12 Water infrastructure—average number of properties served per kilometre of sewer main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	58.9	61.8	53.4	65.7	54.8		63.5	46.2
2006–07	59.4	61.7	53.9	66.2	55.4		63.9	46.4
2007–08	59.2	62.3	53.7	66.7	55.8	43.2	65.6	46.8
2008–09	59.3	62.6	54.2	67.2	56.5		65.0	47.1
2009–10	59.5	62.8	54.3	67.6	57.7	37.7	60.2	46.9
2010–11	59.5	63.3	51.9	68.0	58.4	39.1	59.9	47.5
2011–12	59.1	64.0	57.1	77.3	58.8	37.4	63.0	48.2
2012–13	60.0	64.4	53.1	77.8	59.1	36.2	63.0	49.0

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.13 Stock of infrastructure—number of recycled water treatment plants, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	2	46	1	4	1		1	2
2006–07	2	46	1	2	1		1	2
2007–08	2	43	2	3	1	0	2	2
2008–09	2	56	13	2	1		2	2
2009–10	4	58	25	3	1	0	2	2
2010–11	8	88	30	3	2	0	2	2
2011–12	5	74	26	5	2	0	2	1
2012–13	6	92	31	4	2	0	2	1

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.14 Infrastructure quality—average number of sewer main breaks and chokes per 100 kilometres of sewer main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	72.6	30.4	19.2	50.1	19.5		39.6	157.4
2006–07	80.1	33.9	20.6	62.9	23.5		36.5	166.4
2007–08	56.6	31.0	16.6	55.3	22.4	57.8	33.8	166.9
2008–09	58.3	31.8	16.3	57.2 ^a	20.8		35.0	189.8
2009–10	51.3	30.4	15.9	46.4	22.1	0.0	16.3	105.0
2010–11	52.0	24.9	14.0	46.3	19.2	0.0	20.3	78.0
2011–12	44.0	18.2	16.5	49.2	18.5	0.0	20.6	42.0

^a South Australian data for 2008–09 includes data to conform with NWC definitions. Users should use caution when comparing with previous years.

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 1.15a Stock of infrastructure—length of rural water supply and drainage networks, by asset type—New South Wales

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	4 274	716	7 820	0	96	4 415	20	70	5
2007–08	7 974	736	7 820	0	91	4 293	20	70	5
2008–09	7 972	730	7 920	0	113	4 455	20	70	5
2009–10	7 968	735	7 920	0	113	4 409	20	70	5
2010–11	7 968	732	7 920	0	118	4 515	20	70	111
2011–12	9 347	742	7 920	0	118	4 502	20	70	106
2012–13	9 347	742	7 920	0	118	4 515	20	70	106

Source: BITRE estimates based on NWC (2014a).

Table W 1.15b Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Victoria

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	11 520	343	6 486	521	5 124	3 141	8	27	260
2007–08	11 524	199	4 897	546	9 710	3 153	4	27	267
2008–09	7 383	190	4 897	737	10 278	3 142	4	27	267
2009–10	4 730	194	3 051	1 153	14 179	3 128	4	27	907
2010–11	3 993	246	3 051	3 893	14 840	3 042	2	0	901
2011–12	6 869	310	3 026	1 349	14 244	3 192	4	27	902
2012–13	9 937	336	3 075	3 831	15 044	3 196	4	27	901

Source: BITRE estimates based on NWC (2014a).

Table W 1.15c Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Queensland

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	712	163	3 637	0	1 087	736	0	0	0
2007–08	712	163	3 637	0	1 087	736	0	0	0
2008–09	697	163	3 254	0	1 061	736	0	0	0
2009–10	697	163	3 310	0	1 061	736	0	0	0
2010–11	697	163	3 310	0	1 061	736	0	0	0
2011–12	697	163	3 310	0	1 061	736	0	0	0
2012–13	697	163	3 380	0	1 061	736	0	0	0

Source: BITRE estimates based on NWC (2014a).

Table W 1.15d Stock of infrastructure—length of rural water supply and drainage networks, by asset type—South Australia

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	0	0	0	0	391	0	0	0	335
2007–08	0	0	0	0	391	0	0	0	335
2008–09	0	0	0	0	391	0	0	0	339
2009–10	0	0	0	0	405	0	0	0	339
2010–11	0	0	0	0	405	0	0	0	339
2011–12	0	0	0	0	494	0	0	0	339
2012–13	0	0	0	0	494	0	0	0	339

Source: BITRE estimates based on NWC (2014a).

Table W 1.15e Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Western Australia

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	501	127	0	50	340	0	0	0	0
2007–08	466	83	0	20	410	0	0	0	0
2008–09	466	83	0	20	430	0	0	0	0
2009–10	297	83	0	20	453	0	0	0	0
2010–11	341	85	0	20	469	0	0	0	0
2011–12	296	85	0	20	489	0	0	0	0
2012–13	296	85	0	20	489	0	0	0	0

Source: BITRE estimates based on NWC (2014a).

Table W 1.15f Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Australia

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006-07	17 007	1 349	17 942	571	7 037	8 291	28	97	600
2007-08	20 676	1 181	16 354	566	11 688	8 181	24	97	607
2008-09	16 518	1 166	16 072	757	12 272	8 332	24	97	611
2009-10	13 693	1 175	14 280	1 173	16 211	8 272	24	97	1 251
2010-11	12 999	1 226	14 280	3 913	16 999	8 293	22	70	1 245
2011-12	17 208	1 300	14 256	1 369	16 512	8 430	24	97	1 242
2012-13	20 276	1 326	14 305	3 851	17 312	8 446	24	97	1 240

Source: BITRE estimates based on NWC (2014a).

Table W 1.16 Stock of infrastructure—value of rural water supply and drainage networks, by state/territory—written down replacement cost of fixed assets

End of financial year	New South Wales	Victoria	Queensland	South Australia	Western Australia
	<i>\$ million</i>				
2006-07	1 036	2 437	2 951	181	88
2007-08	1 016	2 988	2 951	180	124
2008-09	1 008	3 016	2 738	180	125
2009-10	979	4 220	2 835	181	129
2010-11	1 050	5 770	2 891	177	127
2011-12	1 141	6 273	2 891	185	128
2012-13	1 211	6 358	2 891	182	112

Source: BITRE estimates based on NWC (2014a).

CHAPTER 2

Water inputs

Table W 2.1 Inputs to water supply—total rainfall on Australian land⁴, by state/territory

Calendar year	NSW ⁵	VIC	QLD	SA	WA	TAS	NT	Australia
<i>gigalitres</i>								
1987								3 487 564
1988								3 536 793
1989								3 720 632
1990								3 212 189
1991								3 609 098
1992								3 479 872
1993								3 840 628
1994								2 619 903
1995								4 021 390
1996								3 614 482
1997								4 055 235
1998								4 349 840
1999								4 492 911
2000								5 594 409
2001								4 296 765
2002								2 604 519
2003	388 687	138 951	896 476	255 705	981 592	83 928	925 502	3 661 403
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

^{4,5} See end notes.

Note: Data are not readily available for missing years.

Source: BOM (2014a), GA (2010).

Table W 2.2 Inputs to urban water supply—volume of water sourced from surface water, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>megalitres</i>								
2005–06	755 055	708 714	400 136	159 232	128 368		34 643	54 340
2006–07	734 541	611 808	359 174	164 742	95 779		36 105	51 060
2007–08	689 299	560 386	310 895	147 078	102 108	100 438	35 067	43 694
2008–09	706 334	549 377	403 592	147 187	102 734		37 815	44 950
2009–10	794 324	539 200	427 081	148 606	129 056		35 878	45 315
2010–11	947 236	542 386	375 753	137 208	91 514		32 635	40 945
2011–12	1 075 301	567 299	429 841	138 929	75 037		36 421	41 790
2012–13	1 072 078	637 982	445 342	118 066	55 657		37 804	47 838

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 2.3 Inputs to urban water supply—volume of water sourced from groundwater, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>megalitres</i>								
2005–06	39 156	5 901	51 729	3 855	145 125		14 133	0
2006–07	38 197	24 292	51 781	3 855	170 237		14 221	0
2007–08	26 611	25 203	54 158	3 701	151 081	260	15 232	0
2008–09	29 340	25 513	13 119	3 598	155 992		15 119	0
2009–10	29 969	25 030	13 354	3 461	130 919	0	15 606	0
2010–11	20 613	10 361	11 488	3 601	168 961	0	13 602	0
2011–12	22 636	12 200	15 474	3 079	164 029	0	14 328	0
2012–13	28 686	9 317	16 807	3 153	168 050	0	14 113	0

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 2.4 Inputs to urban water supply—volume of water sourced from desalination, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>megalitres</i>								
2005–06	40	0	0	0	0		0	0
2006–07	0	0	0	0	18 120		0	0
2007–08	0	0	0	0	26 565	0	0	0
2008–09	0	0	0	0	33 160		0	0
2009–10	19 952	0	23 080	0	32 034	0	0	0
2010–11	77 102	0	13 495	0	28 541	0	0	0
2011–12	61 290	0	3 584	4 229	50 458	0	0	0
2012–13	0	24 850	2 927	36 472	95 770	0	0	0

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 2.5 Inputs to urban water supply—volume of water sourced from recycling, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>megalitres</i>								
2005–06	11 028	29 305	12 677	17 336	4 365		1 585	2 141
2006–07	16 093	29 631	16 551	25 047	5 248		942	2 104
2007–08	18 905	27 279	15 389	25 868	6 201	0	974	3 789
2008–09	18 193	26 223	17 750	25 858	5 951		1 159	4 207
2009–10	20 792	23 358	19 344	24 393	5 706	0	1 030	4 249
2010–11	17 803	24 971	48 077	19 802	5 939	0	490	4 305
2011–12	20 089	19 961	33 849	4 620	7 862	0	746	4 607
2012–13	50 047	31 148	36 436	5 767	9 891	0	1 027	4 416

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 2.6a Urban water treatment—volume of residential sewage, non-residential sewage and non-trade waste collected, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	560 543	281 471	291 733	80 027	122 671		16 455	31 976
2006–07	637 768	244 513	265 896	82 143	122 720		16 226	30 995
2007–08	707 080	246 356	272 527	77 943	130 162		17 104	30 712
2008–09	628 131	242 765	313 314	77 608	129 790		17 105	30 051
2009–10	608 841	250 557	314 714	80 483	131 667		19 294	31 836
2010–11	680 452	201 179	362 398	84 419	129 812		22 089	35 441
2011–12	776 775	184 494	339 648	82 745	137 725		18 813	35 231
2012–13	659 467	291 123	319 219	82 622	140 225		17 609	32 135

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 2.6b Urban water treatment—volume of trade waste collected, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	36 280	53 225	14 927	10 574	6 100		1 051	0
2006–07	35 153	51 126	12 178	10 476	6 300		1 035	0
2007–08	35 530	48 773	12 185	9 217	6 473		1 091	0
2008–09	36 050	49 497	14 970	9 269	6 510		905	0
2009–10	32 575	49 430	16 297	8 189	6 539		1 232	0
2010–11	34 289	156 060	15 936	8 930	6 573		1 410	0
2011–12	34 413	153 686	17 767	9 348	7 292		1 201	0
2012–13	33 214	51 692	21 693	9 362	7 443		1 124	0

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 2.6c Urban water treatment—volume of total sewage collected, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>megalitres</i>								
2005–06	611 001	761 409	312 841	90 601	128 771	0	17 506	31 976
2006–07	678 703	684 909	284 047	92 619	129 020	0	17 263	30 995
2007–08	742 610	673 791	290 368	87 160	136 635	55 363	18 195	30 712
2008–09	664 181	664 198	333 623	86 877	136 300	0	18 011	30 051
2009–10	641 423	689 765	336 989	88 672	138 206	0	20 524	31 836
2010–11	714 741	823 420	384 911	93 349	136 385	0	23 499	35 441
2011–12	811 188	804 584	364 168	92 093	145 017	0	20 014	35 231
2012–13	692 681	659 240	351 805	91 984	147 668	0	18 732	31 850

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 2.7 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
<i>base of each index: 2011–12 = 100</i>									
1998–99	47.4	38.9	38.1	45.9	56.3	53.7	49.0	36.9	43.5
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	46.6	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

Source: ABS (2014d).

Table W 2.8 Inputs to rural water supply—power consumed to provide rural water distribution services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
<i>kilowatt hours</i>					
2006–07	5 155 535	21 250 309	57 853 728	18 068 925	200
2007–08	4 956 344	18 065 716	36 531 867	15 666 171	683 875
2008–09	5 051 822	18 693 179	35 492 986	14 207 826	422 585
2009–10	6 320 225	18 476 739	56 946 073	16 383 896	2 294 798
2010–11	6 046 386	10 450 180	18 372 912	13 920 949	3 003 941
2011–12	6 971 082	29 042 654	18 372 912	22 416 052	2 919 338

Source: BITRE estimates based on NWC (2014a).

Table W 2.9a Inputs to rural water supply—supply network intake volume for surface water source, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
<i>megalitres</i>					
2006–07	3 727 459	295 199	536 032	89 805	405 333
2007–08	1 677 102	372 327	622 979	79 854	298 652
2008–09	2 205 299	368 775	602 148	81 473	266 717
2009–10	2 732 428	354 939	821 479	82 123	239 214
2010–11	4 975 150	227 414	473 234	70 643	245 958
2011–12	7 219 133	335 618	473 234	99 087	231 528
2012–13	6 103 675	339 330	473 234	126 163	205 072

Source: BITRE estimates based on NWC (2014a).

Table W 2.9b Inputs to rural water supply—supply network intake volume for groundwater source, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
			<i>megalitres</i>		
2006–07	3 615	70	39 938	0	0
2007–08	5 896	32 093	27 908	0	0
2008–09	4 178	34 841	23 567	0	0
2009–10	3 900	31 290	35 569	0	0
2010–11	1 201	15 349	6 678	0	0
2011–12	2 025	540	6 678	0	0
2012–13	437	0	6 678	0	0

Source: BITRE estimates based on NWC (2014a).

Table W 2.9c Inputs to rural water supply—supply network intake volume for treated waste water, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
			<i>megalitres</i>		
2006–07	0	10 944	0	0	0
2007–08	0	12 521	0	0	0
2008–09	0	13 577	0	0	0
2009–10	0	12 729	0	0	0
2010–11	0	1 778	0	0	0
2011–12	0	23	0	0	0
2012–13	0	2 384	0	0	0

Source: BITRE estimates based on NWC (2014a).

Table W 2.9d Inputs to rural water supply—supply network intake volume for other sources, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
			<i>megalitres</i>		
2006–07	0	16 000	0	0	0
2007–08	0	12 445	0	0	0
2008–09	0	11 604	0	0	0
2009–10	0	12 887	0	0	0
2010–11	0	586	0	0	0
2011–12	0	0	0	0	0
2012–13	0	0	0	0	0

Source: BITRE estimates based on NWC (2014a).

Table W 2.9e Inputs to rural water supply—total supply network intake volume, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
			<i>megalitres</i>		
2006–07	3 731 074	322 213	575 970	89 805	405 333
2007–08	1 682 999	429 386	650 887	79 854	298 652
2008–09	2 209 477	428 797	625 715	81 473	266 717
2009–10	2 736 328	411 845	857 048	82 123	239 214
2010–11	4 976 351	245 126	479 912	70 643	245 958
2011–12	7 233 508	336 181	479 912	99 087	250 021
2012–13	6 104 112	341 714	479 912	126 163	205 072

Source: BITRE estimates based on NWC (2014a).

Table W 2.10a Rural water markets—entitlements⁶ on issue, by state/territory

Financial year	NSW	VIC	QLD	SA <i>gigalitres</i>	WA	TAS	NT	ACT
2007–08	11 058	4 295	4 717	1 333	2 515	1 471	117	65
2008–09	10 679	4 530	4 938	1 691	2 561	1 460	188	80
2009–10	11 094	5 701	5 604	1 374	2 437	1 650	258	76
2010–11	11 649	5 990	5 734	1 482	2 722	1 711	323	76
2011–12	13 280	6 664	5 870	1 747	2 634	1 794	311	76
2012–13	13 298	6 712	5 987	1 699	3 126	1 832	314	65

⁶ See end notes.

Source: NWC (2014a).

Table W 2.10b Rural water markets—total entitlement⁶ trade, by state/territory

Financial year	NSW	VIC	QLD	SA <i>gigalitres</i>	WA	TAS	NT	ACT
2007–08		218	76	17	2	57	0	<1
2008–09	1 286	252	75	73	8	104	0	<1
2009–10	1 276	402	70	150	24	27	0	<1
2010–11	635	300	136	88	25	20	0	<1
2011–12	768	377	130	93	14	55	0	<1
2012–13	680	231	225	63	100	38	0	<1

⁶ See end notes.

Note: Data are not readily available for missing years.

Source: NWC (2014a).

Table W 2.10c Rural water markets—value of market turnover for water entitlements⁶, by state/territory

Financial year	NSW	VIC	QLD	SA ^b \$ million	WA	TAS	NT	ACT
2007–08	470.5	277.4	57.7	38.3	1.0	na	0.0	na
2008–09	1 661.8	370.6	70.4	118.6	1.7	na	0.0	na
2009–10	1 564.2	733.2	91.6	227.1	0.7	na	0.0	na
2010–11	687.0	428.0	104.0	73.3	1.0	na	0.0	na
2011–12	730.0	491.0	142.0	80.4	1.0	na	0.0	na
2012–13	616.0	229.0	58.0	54.4	1.0	na	0.0	na

^b The entitlement turnover value for 2007–08 is based on average prices and total volumes of whole-of-licence transfers, whereas for 2008–09 the entitlement turnover is based on permanent allocation trades, and for 2009–10, 2010–11 and 2011–12 and 2012–13 is based on transfers of water access entitlements. These three approaches may not be directly comparable.

⁶ See end notes.

na. Not available.

Source: NWC (2014a).

Table W 2.10d Rural water markets—value of market turnover for water allocations⁷, by state/territory

Financial year	NSW	VIC	QLD	SA ^b \$ million	WA	TAS	NT	ACT
2007–08	384.0	270.5	na	181.3	0.3	na	0.0	0.0
2008–09	448.0	124.6	na	33.2	0.1	na	0.0	0.0
2009–10	217.9	127.7	na	20.4	0.3	na	0.0	0.0
2010–11	85.0	33.0	na	10.5	1.4	0.0	0.0	0.0
2011–12	38.9	28.0	na	11.4	0.0	na	0.0	0.0
2012–13	168.3	102.8	na	15.1	0.6	na	0.0	0.0

^b The entitlement turnover value for 2007–08 is based on average prices and total volumes of whole-of-licence transfers, whereas for 2008–09 the entitlement turnover is based on permanent allocation trades, and for 2009–10, 2010–11 and 2011–12 and 2012–13 is based on transfers of water access entitlements. These three approaches may not be directly comparable.

⁷ See end notes.

na. Not available.

Source: NWC (2014a).

CHAPTER 3

Supply and use

Table W 3.1 Urban water supply—Australian population receiving water supply services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT ^c
				<i>thousands</i>				
2005–06	6 237	4 879	2 915	1 131	1 714		132	372
2006–07	6 291	4 905	2 958	1 139	1 772		134	374
2007–08	6 318	5 087	3 005	1 147	1 820	392	136	380
2008–09	6 370	5 196	3 164	1 165	1 882		138	387
2009–10	6 474	5 350	3 338	1 173	1 953	406	140	396
2010–11	6 659	5 439	3 581	1 190	1 983	410	142	403
2011–12	6 686	5 601	3 735	1 198	2 061	423	146	412
2012–13	6 720	5 686	3 746	1 211	2 107	435	149	420

^c ACT population receiving water supply services includes some NSW residents in adjacent areas.

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 3.2a Urban water supply—number of residential properties connected to the urban water supply network, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
				<i>thousands</i>				
2005–06	2 320	1 962	1 152	489	672		49	132
2006–07	2 350	1 994	1 173	496	689		50	133
2007–08	2 372	2 033	1 200	502	707		51	134
2008–09	2 389	2 069	1 253	509	725		51	137
2009–10	2 446	2 110	1 296	517	743	168	53	139
2010–11	2 472	2 158	1 367	525	759	171	54	142
2011–12	2 494	3 823	1 453	531	784	177	53	146
2012–13	2 531	2 247	1 468	536	798	181	53	149

¹ See end notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.2b Urban water supply—number of non-residential properties connected to the urban water supply network, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
				<i>thousands</i>				
2005–06	186	194	96	30	91		8	7
2006–07	187	198	98	31	91		9	7
2007–08	191	203	99	31	90		10	7
2008–09	196	203	103	31	91		11	7
2009–10	206	206	106	32	95	28	8	7
2010–11	213	207	107	32	93	25	8	8
2011–12	218	353	107	31	92	24	10	8
2012–13	214	210	102	31	95	16	10	9

¹ See end notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.2c Urban water supply—total number of properties connected to the urban water supply network, by state/territory^d

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>thousands</i>								
2005–06	2 505	2 154	1 249	519	762		57	139
2006–07	2 536	2 190	1 271	527	781		59	140
2007–08	2 566	2 233	1 306	533	799	193	61	141
2008–09	2 586	2 273	1 356	540	816		62	144
2009–10	2 653	2 315	1 402	548	837	196	61	146
2010–11	2 685	2 365	1 474	557	852	197	62	150
2011–12	2 712	2 414	1 559	1 504	876	201	63	154
2012–13	2 746	2 457	1 570	1 520	893	197	63	158

^d Components may not sum to total due to rounding.¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 3.3a Urban water supply—volume of urban water supplied to residential properties, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	466 928	400 484	222 572	113 887	184 440		22 523	34 436
2006–07	458 990	358 567	204 490	115 690	198 472		24 634	31 954
2007–08	420 677	323 974	182 769	97 152	192 962		25 299	26 079
2008–09	453 865	324 878	177 063	96 680	202 972		25 642	27 494
2009–10	471 094	321 327	209 730	98 649	206 237		25 163	27 609
2010–11	450 114	307 864	197 990	94 289	201 926		21 794	25 204
2011–12	443 879	331 218	238 155	94 700	198 018		24 756	26 326
2012–13	476 550	366 858	254 079	102 850	200 560		24 582	29 609

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 3.3b Urban water supply—volume of urban water supplied to commercial, municipal, and industrial properties, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	221 048	184 741	129 249	41 187	61 525		19 175	14 177
2006–07	222 805	171 501	128 171	42 889	64 006		19 589	13 642
2007–08	209 888	158 010	118 995	38 580	64 015		19 435	11 153
2008–09	205 447	156 366	110 474	38 936	64 026		20 280	11 223
2009–10	212 120	151 046	130 250	22 491	61 972		16 680	10 185
2010–11	199 694	142 545	117 214	35 168	62 666		15 034	8 822
2011–12	200 480	149 433	136 883	33 206	63 464		16 951	10 977
2012–13	213 211	205 445	138 131	37 188	63 635		16 923	12 738

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 3.3c Urban water supply—volume of urban water supplied for other uses⁸, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	89 166	70 843	27 324	19 948	24 201		1 681	3 857
2006–07	75 527	65 275	21 659	12 343	20 354		1 253	2 103
2007–08	83 551	62 558	19 273	15 952	22 286		1 290	3 517
2008–09	74 764	57 634	17 190	14 880	23 496		1 061	3 080
2009–10	72 366	54 197	23 207	15 638	25 968		1 454	3 778
2010–11	126 623	54 900	28 348	6 432	26 251		2 002	3 345
2011–12	114 454	59 757	29 126	21 873	32 822		1 432	3 052
2012–13	96 224	64 385	48 840	24 233	32 732		1 580	3 485

⁸ See end notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.3d Urban water supply—total volume of urban water supplied, by state/territory^d

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>megalitres</i>								
2005–06	1 095 926	655 447	401 747	176 006	269 732		401 747	52 470
2006–07	1 060 765	592 342	375 365	171 906	282 267		375 365	47 699
2007–08	991 962	544 542	342 252	152 656	279 263	80 961	342 252	40 749
2008–09	1 017 923	538 878	376 955	152 081	290 494		376 955	41 797
2009–10	1 094 031	887 932	393 992	137 617	294 177		393 992	41 572
2010–11	1 211 415	857 070	360 624	135 889	290 844		360 624	37 371
2011–12	1 186 808	905 967	409 834	149 779	294 305		409 834	40 355
2012–13	1 321 282	1 047 251	458 533	164 271	296 927		458 533	45 832

^d components may not sum to total due to rounding.¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 3.4 Urban water supply—Australian population receiving sewerage services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>thousands</i>								
2005–06	5 844	4 612	2 764	1 070	1 525		126	334
2006–07	5 870	4 648	2 794	1 078	1 575		129	336
2007–08	5 897	4 820	2 843	1 085	1 642	361	131	341
2008–09	5 960	4 946	2 973	1 103	1 716		133	348
2009–10	6 072	4 940	3 147	1 112	1 794	371	135	355
2010–11	6 258	5 121	3 419	1 125	1 830	379	137	362
2011–12	6 264	5 364	3 544	1 136	1 889	385	141	371
2012–13	6 293	5 437	3 482	1 149	1 960	395	143	380

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 3.5a Urban water treatment—number of residential properties connected to sewerage services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
				<i>thousands</i>				
2005–06	2 203	1 822	1 084	462	594		47	132
2006–07	2 222	1 847	1 100	469	617		48	133
2007–08	2 249	1 892	1 143	475	637		49	134
2008–09	2 276	1 929	1 165	482	656		49	137
2009–10	2 295	1 970	1 200	489	677	152	51	138
2010–11	2 319	2 015	1 253	495	698	156	51	142
2011–12	2 342	2 067	1 335	503	716	158	51	146
2012–13	2 378	2 108	1 343	508	739	160	51	149

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.5b Urban water treatment—number of non-residential properties connected to sewerage services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
				<i>thousands</i>				
2005–06	156	163	95	27	55		8	6
2006–07	165	162	99	27	56		8	6
2007–08	165	167	98	27	59		9	7
2008–09	165	171	96	28	61		10	7
2009–10	171	174	99	28	63	24	6	7
2010–11	176	175	97	29	64	21	6	7
2011–12	179	179	109	27	64	20	10	7
2012–13	178	182	92	27	65	14	10	8

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.5c Urban water treatment—total number of properties connected to sewerage services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
				<i>thousands</i>				
2005–06	2 358	1 985	1 179	489	650		55	138
2006–07	2 386	2 009	1 199	496	673		56	139
2007–08	2 412	2 060	1 236	502	695	178	58	141
2008–09	2 441	2 099	1 262	509	717		59	144
2009–10	2 466	2 143	1 300	517	740	176	57	145
2010–11	2 495	2 190	1 350	524	761	177	57	149
2011–12	2 520	2 246	1 529	597	780	178	60	153
2012–13	2 557	2 290	1 388	604	805	174	61	157

¹ See end notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.6a Urban water treatment—volume of recycled water supplied to residential properties⁹, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	1 693	0	31	50	0		0	0
2006–07	1 667	5	31	200	0		0	0
2007–08	1 415	123	36	305	0		0	0
2008–09	1 704	213	31	352	0		0	0
2009–10	2 209	1 404	31	334	0		0	0
2010–11	2 373	0	31	291	0		0	0
2011–12	1 993	2	63	155	0		0	0
2012–13	2 721	8	432	203	0		0	0

⁹ See end notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.6b Urban water treatment—volume of recycled water supplied to commercial, municipal, and industrial properties^{9,10}, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	9 000	4 491	10 092	679	5 385		1 415	2 021
2006–07	13 766	5 298	12 912	1 324	6 402		942	2 009
2007–08	16 246	6 151	12 035	1 572	7 420		974	3 736
2008–09	14 677	7 621	13 781	1 516	7 732		1 159	4 204
2009–10	18 505	4 264	30 245	1 810	6 118		1 030	4 151
2010–11	15 851	3 945	18 983	1 861	6 604		490	1 789
2011–12	16 248	4 915	23 669	2 380	6 856		746	1 857
2012–13	17 624	8 144	18 573	2 956	6 949		1 027	1 844

^{9,10} See end notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.6c Urban water treatment—volume of recycled water supplied for agricultural uses¹¹, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	12 330	50 211	5 443	12 680	1 915		0	120
2006–07	13 387	52 141	5 381	18 465	1 873		0	95
2007–08	12 782	51 377	4 423	18 727	1 900		0	53
2008–09	17 110	48 727	9 158	18 839	1 958		0	0
2009–10	19 614	51 041	8 236	18 119	2 063		0	96
2010–11	22 212	25 865	5 301	12 117	1 993		0	0
2011–12	19 051	37 618	5 688	17 480	3 156		0	0
2012–13	19 478	35 180	9 685	21 774	3 364		0	0

¹¹ See end notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.6d Urban water treatment—volume of recycled water supplied for on-site use¹², by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	15 604	16 369	5 127	4 073	2 069		187	0
2006–07	17 686	16 274	5 852	2 914	2 069		343	0
2007–08	20 220	15 873	6 656	3 033	2 075		295	0
2008–09	18 908	18 898	9 614	2 675	2 087		300	3
2009–10	17 865	19 951	9 526	2 289	2 404		0	2
2010–11	17 349	20 252	10 337	2 023	3 060		0	405
2011–12	16 680	19 805	10 253	123	2 834		0	2 750
2012–13	15 446	23 680	10 459	360	2 873		0	2 572

¹² See end notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.6e Urban water treatment—volume of recycled water supplied for other uses, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	0	0	0	160	0		0	0
2006–07	8	0	0	2 450	0		0	0
2007–08	0	0	0	2 232	0		0	0
2008–09	62	0	0	2 477	0		185	0
2009–10	0	0	0	2 331	1 475		203	0
2010–11	103	0	0	3 901	2 200		294	0
2011–12	0	0	0	2 984	2 980		336	0
2012–13	0	0	4 649	3 555	2 991		506	0

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 3.6f Urban water treatment—total volume of recycled water supplied, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>megalitres</i>								
2005–06	38 627	71 071	20 692	17 642	9 369	0	1 602	2 141
2006–07	46 514	73 718	24 175	25 353	10 344	0	1 285	2 104
2007–08	50 663	73 524	23 149	25 869	11 395	0	1 269	3 789
2008–09	52 461	75 459	32 584	25 858	11 778	0	1 645	4 207
2009–10	58 193	76 659	48 038	24 883	12 060	0	1 233	4 249
2010–11	57 888	50 062	34 652	20 194	13 857	0	784	2 194
2011–12	53 971	62 339	39 672	23 122	15 826	0	1 083	4 607
2012–13	55 269	67 012	44 401	28 848	16 176	0	1 533	4 416

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 3.7 Urban water treatment—percentage of effluent recycled, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>per cent</i>								
2005–06	6.37	10.60	6.61	19.47	7.28		9.15	97.45
2006–07	6.87	14.12	8.51	27.37	8.02		7.44	93.76
2007–08	6.83	14.24	9.62	29.68	8.34	7.62	6.97	96.04
2008–09	8.52	14.94	9.77	29.76	8.64		9.13	98.22
2009–10	10.30	14.19	14.26	28.06	8.73		6.01	97.43
2010–11	11.87	6.83	11.53	21.63	10.16		3.34	97.43
2011–12	9.80	8.76	10.90	25.11	10.91		5.41	13.08
2012–13	11.08	11.15	12.62	31.36	10.95		8.18	13.86

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 3.8 Rural water use—volume of rural water used at customer service points, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
<i>megalitres</i>					
2006–07	3 010 908	451 442	1 047 399	89 805	259 646
2007–08	1 405 459	634 991	861 623	76 793	199 853
2008–09	1 851 526	910 787	830 011	80 188	212 771
2009–10	2 329 787	831 463	1 114 916	77 793	183 087
2010–11	4 162 279	460 456	393 399	68 326	177 245
2011–12	6 621 017	226 289	393 399	97 786	164 912
2012–13	5 926 560	204 611	393 399	120 679	142 444

Source: BITRE estimates based on NWC (2014b).

Table W 3.9a 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
<i>megalitres</i>								
2004–05	3 716 557	2 363 764	2 613 404	877 818	267 098	231 758	14 198	10 084 596
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

^e Includes the Australian Capital Territory.

Source: ABS (2014p).

Table W 3.9b Rural water use—water consumption by agricultural activity, by State or Territory—other water use

Financial year	NSW ^a	VIC	QLD	SA	WA	TAS	NT	Australia
<i>megalitres</i>								
2004-05	259 551	206 456	251 486	127 010	162 274	23 690	31 440	1 061 906
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

^a Includes the Australian Capital Territory.

Source: ABS (2014p).

Table W 3.9c Rural water use—water consumption by agricultural activity, by State or Territory—total

Financial year	NSW ^a	VIC	QLD	SA	WA	TAS	NT	Australia
<i>megalitres</i>								
2004-05	3 976 108	2 570 220	2 864 890	1 004 828	429 372	255 448	45 638	11 146 502
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

^a Includes the Australian Capital Territory.

Source: ABS (2014p).

Table W 3.10a Rural water use—area of irrigated crops and pastures, by agricultural activity—New South Wales^e

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	np	np	^f 173	0	^f 29	30	15	4	34
2003–04	np	np	^f 112	0	^f 43	25	^f 22	^f 5	34
2004–05	590	np	146	np	^f 30	26	^f 17	4	36
2005–06 ¹³	595	101	169	0	29	30	18	5	44
2006–07	445	^f 20	99	np	^f 20	34	15	^f 5	41
2007–08	385.8	2.1	36.7	^g 0.9	15.5	29.6	12.3	^f 3.2	35.8
2008–09	320.7	^f 7.2	70.3	0.0	^f 18.3	24.8	13.5	3.8	^f 41.2
2009–10	342.7	np	80.1	np	^f 21.1	26.5	14.8	^f 3.9	^f 37.3
2010–11	np	^f 75.0	196.2	0.1	21.1	25.1	14.6	3.6	39.2
2011–12	353.7	^f 101.9	^f 235.6	0.0	^f 17.9	23.4	12.8	2.8	33.4
2012–13	431.0	113.04	267.5	^g 0.4	34.3	22.2	14.6	3.4	33.3

^e Includes the Australian Capital Territory.^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.10b Rural water use—area of irrigated crops and pastures, by agricultural activity—Victoria

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	np	np	0	0	^f 8	^f 39	26	3	35
2003–04	np	np	0	0	^f 7	29	23	3	33
2004–05	np	np	0	0	^f 9	30	25	3	36
2005–06 ¹³	535	1	0	0	6	36	26	3	37
2006–07	330	0	0	0	^g 2	35	22	3	^f 44
2007–08	312.3	0.0	0.0	0.0	^g 7.0	33.5	27.7	^f 3.9	^g 39.2
2008–09	267.5	0.0	0.0	0.0	^g 2.2	35.0	24.7	2.7	^f 36.6
2009–10	322.1	np	0.0	0.0	np	45.6	25.2	3.0	^f 38.1
2010–11	np	^f 0.2	0.0	0.0	5.6	46.1	25.6	3.1	30.0
2011–12	436.9	^g 0.8	0.0	0.0	^f 7.0	45.9	24.6	3.0	32.7
2012–13	493.2	^g 0.5	0.0	0.0	^f 16.8	46.6	25.1	2.7	33.1

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.10c Rural water use—area of irrigated crops and pastures, by agricultural activity—Queensland

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	143	0	61	235	^f 11	35	34	3	^f 3
2003–04	154	0	73	237	^f 24	33	35	3	^g 3
2004–05	122	0	^f 124	209	^f 11	31	31	4	^g 4
2005–06 ¹³	np	0	101	205	10	37	31	4	3
2006–07	141	0	35	196	^f 9	37	31	4	^f 1
2007–08	207.3	0.0	21.2	184.0	^f 17.0	35.4	33.7	^f 4.4	^f 1.3
2008–09	185.0	0.0	^f 71.6	191.9	^f 20.7	34.9	29.4	3.9	^g 3.1
2009–10	126.2	np	73.1	np	^f 13.9	33.6	29.4	4.0	np
2010–11	np	0.4	163.0	129.4	13.8	35.1	34.9	3.3	2.8
2011–12	^f 82.5	^g 0.3	160.8	166.1	^f 7.5	34.4	28.6	3.8	2.0
2012–13	^f 113.7	^g 0.1	170.3	169.8	^f 13.5	37.1	28.0	2.6	2.5

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.10d Rural water use—area of irrigated crops and pastures, by agricultural activity—South Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	80	0	0	0	^g 3	18	14	1	66
2003–04	87	0	0	0	^f 2	17	14	^g 2	64
2004–05	82	0	0	0	^g 3	19	17	1	61
2005–06 ¹³	95	0	0	0	np	19	15	1	85
2006–07	85	0	0	0	^g 2	19	14	1	78
2007–08	103.5	0.0	0.0	0.0	^f 7.7	16.4	15.5	0.8	77.2
2008–09	np	0.0	0.0	0.0	^g 3.0	18.0	14.5	np	77.7
2009–10	75.1	0.0	0.0	0.0	^g 1.4	14.9	11.8	^f 0.8	^f 71.9
2010–11	np	0.0	0.0	0.0	2.5	17.8	13.8	0.9	68.0
2011–12	^f 73.8	0.0	0.0	0.0	^f 2.6	16.1	14.7	^f 0.8	58.6
2012–13	^f 79.1	0.0	0.0	0.0	^f 1.6	16.7	12.4	^f 0.8	59.3

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.10e Rural water use—area of irrigated crops and pastures, by agricultural activity—Western 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 consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	np	0	0	4	np	^f 10	9	2	^f 10
2003–04	np	0	0	4	np	^f 9	9	^f 2	^g 14
2004–05	np	0	0	np	np	^f 9	7	^f 2	^f 8
2005–06 ¹³	np	0	0	^f 5	np	10	8	2	12
2006–07	np	0	0	4	1	9	8	2	^f 13
2007–08	np	0.0	0.0	2.2	np	10.2	9.4	np	^f 12.7
2008–09	np	0.0	0.0	0.0	1.4	8.5	8.5	1.4	^f 12.5
2009–10	np	0.0	0.0	0.0	3.0	7.5	8.0	^f 1.2	^f 11.2
2010–11	np	^g 0.2	0.0	0.0	^f 3.8	8.1	9.3	1.5	10.5
2011–12	^g 16.8	0.1	^f 0.8	np	1.3	^f 7.8	9.5	^f 1.2	^f 9.9
2012–13	^g 30.1	0.0	^f 0.0	0.0	6.2	7.7	9.6	^f 1.2	^f 7.9

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹³ See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.10f Rural water use—area of irrigated crops and pastures, by agricultural activity—Tasmania

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	48	0	0	0	16	^f 4	18	0	^f 1
2003–04	49	0	0	0	^f 12	^f 4	19	0	^g 1
2004–05	51	0	0	0	8	^f 4	17	0	^g 1
2005–06 ¹³	56	0	0	0	5	3	15	0	1
2006–07	59	0	0	0	^f 3	3	14	0	^f 1
2007–08	63.1	0.0	0.0	0.0	7.1	2.6	14.2	0.3	1.1
2008–09	np	0.0	0.0	0.0	6.1	^f 3.4	13.0	np	1.1
2009–10	np	0.0	0.0	0.0	17.1	^f 3.1	14.6	np	^f 1.3
2010–11	np	0.0	0.0	0.0	14.7	3.0	13.3	0.3	1.2
2011–12	^f 49.3	0.0	0.0	0.0	12.5	3.3	13.5	0.3	^f 1.2
2012–13	^f 56.4	0.0	0.0	0.0	15.5	2.2	^f 11.7	0.3	^f 1.2

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.10g Rural water use—area of irrigated crops and pastures, by agricultural activity—Northern Territory

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>'000 hectares</i>									
2002–03	np	0	0	0	np	2	0	0	0
2003–04	np	0	0	0	np	3	0	0	0
2004–05	np	0	0	0	np	2	0	0	0
2005–06 ¹³	np	0	0	0	0	6	np	0	np
2006–07	np	0	0	0	np	5	1	0	0
2007–08	np	0.0	0.0	0.0	np	^f 3.1	^f 1.0	np	^g 0.3
2008–09	^g 1.3	0.0	0.0	0.0	0.0	3.6	0.9	0.1	^f 0.3
2009–10	np	0.0	0.0	0.0	np	3.2	0.7	np	np
2010–11	np	0.0	0.0	0.0	0.0	3.9	1.3	0.1	0.2
2011–12	^f 0.3	0.0	0.0	0.0	0.0	3.7	1.5	1.5	0.1
2012–13	0.2	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.1

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.10h 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 ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>'000 hectares</i>									
2002–03	1 377	44	234	238	68	138	116	13	150
2003–04	1 411	65	185	241	89	120	121	^f 16	149
2004–05	1 387	51	270	213	63	122	114	14	147
2005–06 ¹³	1 445	102	270	210	55	139	114	15	183
2006–07	1 077	^f 20	134	202	37	141	105	15	178
2007–08	1 095.1	2.1	58.0	187.2	57.7	130.7	113.8	14.2	167.5
2008–09	932.3	^f 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	^f 103.1	397.2	166.1	48.8	134.5	105.2	11.9	137.9
2012–13	1 203.6	113.6	437.8	170.2	87.9	135.3	102.9	11.0	137.5

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.1 Ia Rural water use—volume of irrigation water applied, by agricultural activity—New South Wales^e

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	np	np	^f 1 211 732	0	^f 71 683	151 943	68 960	31 404	140 690
2003–04	np	np	^f 792 122	^g 27	^f 154 582	135 723	^f 104 528	^f 38 594	168 133
2004–05	1 626 289	np	964 306	np	^f 94 925	133 561	^f 68 290	^f 20 712	^f 171 629
2005–06 ¹³	1 635 232	1 240 626	1 127 730	1 501	95 887	138 815	74 303	24 776	185 320
2006–07	1 243 753	^f 237 214	673 905	np	^f 53 879	134 564	62 195	^f 26 362	^f 171 025
2007–08	1 061 431	26 664	204 646	^g 3 569	^f 36 704	135 259	48 081	^f 16 270	135 294
2008–09	907 517	^f 101 474	465 833	0	^f 54 100	120 683	61 365	^f 21 883	^f 166 923
2009–10	876 999	np	468 843	np	^g 42 314	116 531	68 552	^f 18 629	150 649
2010–11	np	758 998	1 073 849	3	50 026	188 474	54 450	17 723	106 616
2011–12	791 054	1 131 541	1 280 129	0	^f 40 288	92 966	46 332	9 106	^f 123 311
2012–13	738 209	1 428 762	1 798 595	91	101 804	117 166	^f 56 736	17 241	151 375

^e Includes the Australian Capital Territory.^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.1 Ib Rural water use—volume of irrigation water applied, by agricultural activity—Victoria

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	np	np	0	0	^f 17 495	172 755	81 928	10 680	205 451
2003–04	np	np	0	0	^f 14 916	173 567	82 777	9 992	179 359
2004–05	np	np	0	0	^f 15 367	159 047	78 746	11 262	^f 198 234
2005–06 ¹³	1 953 857	12 600	0	0	13 808	172 859	91 054	11 216	185 620
2006–07	1 151 782	np	0	0	^g 3 268	190 622	73 213	11 529	^f 214 835
2007–08	887 000	0	0	0	^g 21 407	162 430	85 970	^f 13 289	^f 152 661
2008–09	775 214	0	0	0	^g 4 621	159 302	84 726	11 376	^f 152 588
2009–10	966 519	np	0	0	np	259 716	93 797	11 247	^f 155 293
2010–11	np	^f 1 660	0	0	10 217	199 189	59 240	8 671	83 520
2011–12	^f 1 122 219	np	0	0	^f 11 935	281 054	74 789	9 100	123 663
2012–13	1 701 230	5 064	0	0	^g 32 072	345 382	74 624	10 185	^f 174 220

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.1 Ic Rural water use—volume of irrigation water applied, by agricultural activity—Queensland

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	410 463	0	^f 313 770	^f 1 212 802	^f 32 542	125 713	110 904	14 052	^f 8 291
2003–04	502 288	0	^f 456 802	1 141 173	^f 62 444	128 163	97 564	15 030	^f 9 599
2004–05	361 713	0	^f 855 009	1 109 917	^f 30 026	115 003	102 833	16 123	^f 7 860
2005–06 ¹³	437 840	0	606 761	988 643	29 022	125 564	90 756	23 664	15 107
2006–07	437 901	0	193 757	931 468	^f 23 826	133 057	86 940	14 501	^f 5 644
2007–08	600 316	0	104 796	834 414	^g 44 434	106 655	^f 112 980	16 110	^f 4 700
2008–09	558 124	0	414 170	761 086	^f 50 288	119 060	93 440	15 808	^g 15 906
2009–10	383 401	np	383 107	np	32 416	122 668	87 576	18 438	^f 16 279
2010–11	np	2 480	808 195	459 334	26 270	92 216	90 995	12 371	6 539
2011–12	186 485	^g 1 390	780 650	668 195	12 065 ^f	113 517	74 937	^f 17 776	6 399
2012–13	141 355	^g 384	1 052 208	715 650	42 968 ^f	123 726	91 676	11 479	^f 12 792

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

Source: ABS (2014p).

Table W 3.1 Id Rural water use—volume of irrigation water applied, by agricultural activity—South Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	444 602	0	0	0	^g 6 848	145 665	76 256	^g 6 835	217 496
2003–04	490 300	0	0	0	^g 5 575	123 033	89 474	^g 20 413	^f 228 156
2004–05	435 268	0	0	0	^g 9 373	143 808	79 905	^g 5 515	^f 200 821
2005–06 ¹³	445 578	0	0	0	5 743	131 923	79 429	^g 5 201	227 885
2006–07	509 119	0	0	0	^f 3 202	130 052	85 945	^f 3 534	224 606
2007–08	414 272	0	0	0	^f 52 980	94 390	88 244	2 450	203 349
2008–09	400 783	0	0	0	^g 9 094	131 280	88 606	np	188 369
2009–10	307 517	0	0	0	^g 3 175	103 372	73 272	^f 2 880	174 513
2010–11	np	0	0	0	6 287	108 831	79 117	3 057	142 384
2011–12	^g 216 835	0	0	0	^g 7 079	120 814	80 335	^f 2 597	148 512
2012–13	^g 302 980	0	0	0	^g 6 328	125 739	63 267	^f 3 644	179 648

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.11e Rural water use—volume of irrigation water applied, by agricultural activity—Western 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 consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	np	0	0	80 298	np	^f 46 154	64 369	13 491	^f 12 215
2003–04	np	0	0	69 043	np	^f 47 720	61 663	10 320	^g 17 284
2004–05	np	0	0	np	np	^f 39 124	51 610	11 427	^f 8 982
2005–06 ¹³	np	0	0	^f 66 455	^f 11 685	40 239	50 204	14 556	16 386
2006–07	np	0	0	45 708	16 748	40 838	57 686	14 135	^f 17 892
2007–08	np	0	0	25 214	^f 15 218	48 062	47 527	12 541	^f 17 239
2008–09	np	0	0	0	10 536	47 936	56 300	12 565	^f 16 060
2009–10	np	0	0	0	20 879	36 519	50 315	^f 10 783	^f 14 019
2010–11	np	^g 3 057	^g 199	^g 69	19 933	40 047	54 850	11 297	13 431
2011–12	^g 84 939	1 035	^g 8 129	np	12 031	^f 39 347	57 671	9 939	^f 10 813
2012–13	57 402	0	0	0	^g 25 971	32 725	^f 65 788	^f 10 960	9 842

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹³ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.11f Rural water use—volume of irrigation water applied, by agricultural activity—Tasmania

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	118 275	0	0	0	33 745	^f 9 542	44 516	^f 1 161	^f 1 702
2003–04	137 851	0	0	0	28 678	^f 8 273	51 872	775	^g 1 575
2004–05	144 546	0	0	0	17 140	^f 10 173	51 782	^f 1 029	^g 1 600
2005–06 ¹³	np	0	0	0	10 528	4 950	42 931	1 543	1 167
2006–07	183 371	0	0	0	^f 7 942	6 670	45 420	1 455	^f 2 492
2007–08	np	0	0	0	np	6 218	43 816	np	^f 1 356
2008–09	np	0	0	0	16 044	^f 9 448	44 658	np	^f 1 177
2009–10	np	0	0	0	34 616	^f 7 649	44 322	896	np
2010–11	np	0	0	0	25 189	4 415	28 701	756	1 013
2011–12	112 220	0	0	0	25 794	7 479	35 861	840	^f 1 423
2012–13	141 809	0	0	0	38 811	5 567	34 368	766	1 755

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

^{13, 14} See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.1 Ig Rural water use—volume of irrigation water applied, by agricultural activity—Northern Territory

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	np	0	0	0	np	8 121	752	298	2 950
2003–04	np	0	0	0	np	9 333	1 117	259	2 977
2004–05	np	0	0	0	np	7 422	1 226	200	2 819
2005–06 ¹³	np	0	0	0	0	15 257	np	531	np
2006–07	np	0	0	0	np	12 639	2 490	583	2 097
2007–08	np	0	0	0	np	^f 6 910	^f 4 031	np	^g 2 191
2008–09	5 513	0	0	0	0	9 825	3 998	397	^f 2 229
2009–10	np	0	0	0	np	8 208	1 395	610	np
2010–11	np	0	0	0	129	11 478	5 119	461	2 218
2011–12	^f 2 267	0	0	0	^f 0	11 451	6 239	735	1 502
2012–13	^f 518	0	0	0	0	10 521	5 952	271	279

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.1 Ih 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 ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	5 022 631	615 375	^f 1 525 502	^f 1 293 099	172 184	659 893	447 684	77 920	588 794
2003–04	5 070 729	813 812	1 248 924	1 210 243	^f 268 343	625 812	488 994	^f 95 384	607 083
2004–05	4 539 687	618 964	1 819 316	1 171 933	177 339	608 138	434 391	66 267	591 945
2005–06 ¹³	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	^f 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	^f 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	^f 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	^f 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

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^{13, 14} See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.12a Rural water use—application rate for irrigation water, by agricultural activity—New South Wales^e

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	np	np	7.0	0.0	2.5	5.1	4.6	7.0	4.2
2003–04	np	np	7.1	0.2	3.6	5.5	4.8	7.3	4.9
2004–05	2.8	np	6.6	np	^f 3.2	5.2	4.0	5.1	4.7
2005–06 ¹³	2.7	12.3	6.7	3.4	3.3	4.7	4.1	5.3	4.3
2006–07	2.8	12.2	6.8	np	2.7	4.0	4.1	5.5	4.2
2007–08	2.8	12.9	5.6	^g 3.9	2.4	4.6	3.9	5.2	3.8
2008–09	2.8	14.1	6.6	0.0	3.0	4.9	4.6	5.7	4.1
2009–10	2.6	np	5.9	np	^f 2.0	4.4	4.6	4.8	4.0
2010–11	np	10.1	5.2	3.5	2.2	4.0	3.3	4.2	2.3
2011–12	2.2	11.1	5.4	0.0	2.2	4.0	3.6	3.3	3.7
2012–13	3.1	12.6	7.9	^g 0.2	3.0	5.3	3.9	5.1	4.1

^e Includes the Australian Capital Territory.^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.12b Rural water use—application rate for irrigation water, by agricultural activity—Victoria

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	np	np	0.0	0.0	2.2	4.5	3.2	4.2	5.8
2003–04	np	np	0.0	0.0	2.3	5.9	3.6	3.3	5.5
2004–05	np	np	0.0	0.0	^f 1.7	5.3	3.1	3.6	5.5
2005–06 ¹³	3.7	12.6	0.0	0.0	2.4	4.9	3.5	3.7	5.0
2006–07	3.5	np	0.0	0.0	1.6	5.5	3.3	3.8	4.9
2007–08	2.8	0.0	0.0	0.0	3.1	4.9	3.1	3.4	3.9
2008–09	2.9	0.0	0.0	0.0	^f 2.1	4.6	3.4	4.2	4.2
2009–10	3.0	np	0.0	0.0	np	5.7	3.7	3.7	4.1
2010–11	np	6.9	0.0	0.0	1.8	4.3	2.3	2.8	2.8
2011–12	2.6	^f 5.4	0.0	0.0	^f 1.7	6.1	3.0	3.1	3.8
2012–13	3.7	11.0	0.0	0.0	^f 1.9	7.4	3.0	3.7	5.3

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.12c Rural water use—application rate for irrigation water, by agricultural activity—Queensland

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	2.9	0.0	5.1	5.2	2.9	3.6	3.3	4.1	3.1
2003–04	3.3	0.0	6.3	4.8	2.6	3.9	2.8	4.6	2.9
2004–05	3.0	0.0	6.9	5.3	^f 2.6	3.7	3.3	4.3	^g 2.2
2005–06 ¹³	np	0.0	6.0	4.8	2.9	3.4	2.9	5.5	4.9
2006–07	3.1	0.0	5.5	4.7	^f 2.5	3.6	2.8	4.0	^f 4.7
2007–08	2.9	0.0	4.9	4.5	2.6	3.0	3.4	^f 3.7	^f 3.7
2008–09	3.0	0.0	5.8	4.0	2.4	3.4	3.2	4.0	5.2
2009–10	3.0	np	5.2	np	2.3	3.7	3.0	4.6	np
2010–11	np	6.7	5.0	3.5	1.9	2.6	2.6	3.7	2.4
2011–12	2.3	4.8	4.9	4.0	1.6 ^f	3.3	2.6	4.7 ^f	3.3
2012–13	2.3	2.8 ^f	7.7	4.2	3.2	3.3	3.3	4.4	5.2

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.12d Rural water use—application rate for irrigation water, by agricultural activity—South Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	5.6	0.0	0.0	0.0	2.5	8.1	5.4	6.5	3.3
2003–04	5.6	0.0	0.0	0.0	2.5	7.1	6.4	9.4	3.6
2004–05	5.3	0.0	0.0	0.0	3.0	7.7	4.7	5.4	3.3
2005–06 ¹³	4.7	0.0	0.0	0.0	np	7.0	5.3	5.0	2.7
2006–07	6.0	0.0	0.0	0.0	^g 1.6	6.9	6.1	4.3	2.9
2007–08	4.0	0.0	0.0	0.0	6.9	5.7	5.7	3.2	2.6
2008–09	np	0.0	0.0	0.0	^f 3.0	7.3	6.1	np	2.4
2009–10	4.1	0.0	0.0	0.0	^g 2.2	6.9	6.2	3.7	2.4
2010–11	np	0.0	0.0	0.0	2.5	6.1	5.7	3.6	2.1
2011–12	2.9	0.0	0.0	0.0	^f 2.7	7.5	5.4	^f 3.3	2.5
2012–13	4.0	0.0	0.0	0.0	^g 3.9	7.5	5.1	4.4	3.0

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.12e Rural water use—application rate for irrigation water, by agricultural activity—Western 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 consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	np	0.0	0.0	20.3	np	4.9	7.2	8.3	1.2
2003–04	np	0.0	0.0	16.0	np	5.2	6.9	6.4	1.3
2004–05	np	0.0	0.0	np	np	4.1	7.4	^f 6.7	^f 1.2
2005–06 ¹³	np	0.0	0.0	^f 13.9	np	4.2	6.3	7.5	1.3
2006–07	np	0.0	0.0	13.1	14.0	4.7	7.2	7.9	^f 1.4
2007–08	np	0.0	0.0	11.3	np	4.7	5.1	np	^f 1.4
2008–09	np	0.0	0.0	0.0	7.4	5.7	6.7	8.7	1.3
2009–10	np	0.0	0.0	0.0	6.9	4.9	6.3	9.3	1.3
2010–11	np	13.9	7.7	12.3	5.3	4.9	5.9	7.5	1.3
2011–12	^g 5.1	12.4	^f 9.9	10.0	9.3	5.0	6.1	8.0 ^f	1.1
2012–13	3.4	0.0	^f 0.0	0.0	^g 4.2	4.3	6.9 ^f	9.3	1.2

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹³ See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.12f Rural water use—application rate for irrigation water, by agricultural activity—Tasmania

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	2.5	0.0	0.0	0.0	2.1	2.4	2.5	3.6	2.0
2003–04	2.8	0.0	0.0	0.0	2.4	2.1	2.7	2.5	1.6
2004–05	2.8	0.0	0.0	0.0	2.2	^f 2.3	3.0	3.6	1.3
2005–06 ¹³	np	0.0	0.0	0.0	2.1	1.7	2.9	3.9	1.1
2006–07	3.1	0.0	0.0	0.0	^f 2.7	2.4	3.2	4.2	^f 2.1
2007–08	np	0.0	0.0	0.0	np	2.4	3.1	np	1.3
2008–09	np	0.0	0.0	0.0	2.6	2.8	3.4	np	1.1
2009–10	np	0.0	0.0	0.0	2.0	2.5	3.0	np	np
2010–11	np	0.0	0.0	0.0	1.7	1.5	2.2	2.3	0.9
2011–12	2.3	0.0	0.0	0.0	2.1	2.3	2.7	3.3	^f 1.2
2012–13	2.7	0.0	0.0	0.0	2.5	2.5	2.9	3.0	1.4

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.12g Rural water use—application rate for irrigation water, by agricultural activity—Northern Territory

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	np	0.0	0.0	0.0	np	3.5	3.3	6.5	9.3
2003–04	np	0.0	0.0	0.0	np	3.5	2.6	4.1	7.9
2004–05	np	0.0	0.0	0.0	np	3.0	3.7	2.9	7.7
2005–06 ¹³	np	0.0	0.0	0.0	0.0	2.6	np	5.7	np
2006–07	np	0.0	0.0	0.0	np	2.8	3.6	6.5	8.2
2007–08	np	0.0	0.0	0.0	np	^f 2.2	^f 4.0	np	7.0
2008–09	4.3	0.0	0.0	0.0	0.0	2.7	4.2	4.4	8.4
2009–10	np	0.0	0.0	0.0	np	2.6	2.1	np	np
2010–11	np	0.0	0.0	0.0	1.7	1.5	2.2	2.3	0.9
2011–12	8.3	0.0	0.0	0.0	0.0	3.1	4.1	9.5	10.8
2012–13	2.5	0.0	0.0	0.0	0.0	3.8	np	np	3.1

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^{13, 14} See end notes.

np. Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2014p).

Table W 3.12h 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 ¹⁴	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	3.6	14.1	6.5	5.4	2.5	4.8	3.9	5.8	3.9
2003–04	3.6	12.4	6.7	5.0	3.0	5.2	4.0	6.1	4.1
2004–05	3.3	12.1	6.7	5.5	2.8	5.0	3.8	4.7	4.0
2005–06 ¹³	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	3.1	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

^{13, 14} See end notes.

Source: ABS (2014p).

Table W 3.13a Rural water use—area irrigated, by irrigation method—
New South Wales^e

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Micro-spray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	691	31	5	15	45	54	55	15	2
2003–04	659	48	5	13	31	51	58	10	1
2004–05	678	43	11	10	32	31	63	12	1
2005–06 ¹³									
2006–07	421	42	8	13	25	34	68	8	1
2007–08									
2008–09	308	45	5	11	23	37	52	4	29

^e Includes the Australian Capital Territory.^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.¹³ See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014p).

Table W 3.13b Rural water use—area irrigated, by irrigation method—Victoria

Financial year	Surface	Drip or trickle		Sprinkler				Solid set	Other
		Above ground	Sub-surface	Micro-spray	Portable irrigators	Hose irrigators	Large mobile machines		
'000 hectares									
2002–03	386	f42	f3	18	f28	f32	f40	f32	g5
2003–04	433	32	f7	18	f21	26	f41	f24	g2
2004–05	442	f46	f6	18	f16	f23	f36	f26	g1
2005–06 ¹³									
2006–07	250	f50	g7	20	f14	22	f28	f21	np
2007–08									
2008–09	f197	49	g6	22	f15	f20	f43	f17	f20

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.¹³ See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014p).

Table W 3.13c Rural water use—area irrigated, by irrigation method—Queensland

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Micro-spray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	208	£29	£13	24	£35	154	£50	£18	£5
2003–04	245	28	£16	24	£39	158	£51	13	£2
2004–05	274	£29	£11	20	£25	122	£48	£14	£2
2005–06 ¹³									
2006–07	193	25	£10	24	£19	110	£43	£12	£2
2007–08									
2008–09	263	22	11	28	£25	£119	£62	£16	£22

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹³ See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014p).

Table W 3.13d Rural water use—area irrigated, by irrigation method—South Australia

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Micro-spray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	f 35	55	0	17	f 4	f 5	44	f 20	f 1
2003–04	f 34	56	g 1	17	f 3	f 4	50	15	g 1
2004–05	f 33	56	g 1	17	f 4	f 5	45	f 14	0
2005–06 ¹³									
2006–07	f 28	75	f 2	15	f 2	f 5	57	f 13	0
2007–08									
2008–09	f 17	80	g 2	f 14	f 1	g 7	f 60	f 7	f 12

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹³ See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014p).

Table W 3.13e Rural water use—area irrigated, by irrigation method—
Western Australia

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Micro-spray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	^f 17	^f 17	^f 1	^f 5	^f 1	np	1	4	np
2003–04	16	^f 20	^f 1	4	np	np	^f 4	5	0
2004–05	14	^f 14	^f 1	^f 4	np	^g 3	np	3	0
2005–06 ¹³									
2006–07	^f 17	18	1	4	np	^g 1	^f 4	4	np
2007–08									
2008–09	^f 14	^f 17	^f 1	5	1	0	^f 6	4	^f 4

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹³ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Note: Data are not readily available for missing years.

Source: ABS (2014p).

Table W 3.13f Rural water use—area irrigated, by irrigation method—Tasmania

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Micro-spray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	f 6	f 5	0	f 1	f 10	44	19	f 2	f 1
2003–04	np	f 4	0	f 1	13	41	24	f 2	np
2004–05	np	f 4	0	f 1	12	34	27	f 2	np
2005–06 ¹³									
2006–07	np	f 4	0	f 1	f 13	30	28	1	0
2007–08									
2008–09	g 4	3	0	f 2	f 16	30	29	g 2	f 8

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹³ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Note: Data are not readily available for missing years.

Source: ABS (2014p).

Table W 3.13g Rural water use—area irrigated, by irrigation method—Northern Territory

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Micro-spray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	0	1	0	2	0	np	1	0	np
2003–04	np	1	1	2	np	np	0	0	np
2004–05	np	1	0	2	np	0	np	0	np
2005–06 ¹³									
2006–07	np	1	^f 1	3	np	0	0	0	np
2007–08									
2008–09	^g 1	1	0	3	0	0	1	0	0

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.¹³ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Note: Data are not readily available for missing years.

Source: ABS (2014p).

Table W 3.13h Rural water use—area irrigated, by irrigation method—Australia

Financial year	Surface	Drip or trickle		Sprinkler				Solid set	Other
		Above ground	Sub-surface	Micro-spray	Portable irrigators	Hose irrigators	Large mobile machines		
'000 hectares									
2002–03	1 344	180	23	80	123	289	209	91	f 14
2003–04	1 393	189	31	80	109	281	229	68	f 7
2004–05	1 147	194	f 31	71	90	219	220	71	f 5
2005–06 ¹³									
2006–07	915	214	29	81	74	202	229	59	g 4
2007–08									
2008–09	804	217	26	85	81	214	253	51	95

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.¹³ See end notes.

Note: Data are not readily available for missing years.

Source: ABS (2014p).

Table W 3.14a Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—New South Wales^e

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹⁴	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	218.8	402.4	346.4	848.0	^f 0.3	251.3	180.8	109.5	222.0
2001–02	287.2	569.7	323.1	^f 918.1	0.0	281.0	175.7	^f 116.3	271.3
2002–03	^f 263.6	np	np	^f 658.7	0.0	329.8	156.4	^f 107.1	196.9
2003–04	249.1	np	np	^f 383.7	np	301.7	227.3	^f 133.2	287.8
2004–05	268.0	np	np	^f 514.4	np	328.3	^f 215.7	142.5	255.2
2005–06	276.0	np	270.9	548.0	^f 1.1	350.0	310.3	291.3	246.9
2006–07	264.0	np	^f 54.3	371.9	np	417.4	350.4	303.8	217.7
2007–08	298.7	np	7.3	142.8	np	368.8	346.2	^f 220.0	324.0
2008–09	386.5	399.4	^f 34.5	309.6	0.0	333.9	252.1	^f 241.8	223.2
2009–10	^f 340.9	np	88.9	393.8	np	288.6	286.1	240.8	163.5
2010–11	292.5	^f 452.8	171.9	927.6	^f 0.1	313.8	348.7	233.2	162.8
2011–12	240.8	436.5	^f 246.3	1237.5	0.0	315.4	268.4	191.5	167.8

^e Includes the Australian Capital Territory.

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

¹⁴ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2013b).

Table W 3.14b Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Victoria

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹⁴	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	945.7	409.9	3.8	0.0	0.0	381.0	398.8	142.6	319.6
2001–02	^f 143.3	460.8	^g 3.7	0.0	0.0	419.2	376.1	164.4	368.1
2002–03	844.8	np	np	0.0	0.0	475.2	330.7	144.7	306.2
2003–04	932.8	np	np	0.0	0.0	514.4	350.0	188.5	346.4
2004–05	^f 115.5	np	np	0.0	0.0	^f 577.8	375.6	208.1	356.3
2005–06	^f 134.7	np	2.8	0.0	0.0	611.3	505.8	315.1	320.5
2006–07	938.8	np	np	0.0	0.0	^f 741.9	570.9	^f 369.8	^f 272.6
2007–08	^f 363.8	np	0.0	0.0	0.0	636.6	662.2	^f 396.9	374.3
2008–09	^f 159.1	np	0.0	0.0	0.0	719.2	543.4	^f 250.1	^f 355.4
2009–10	^f 906.5	412.5	^g 0.1	0.0	0.0	732.0	511.2	323.8	^f 367.4
2010–11	^f 266.8	465.4	0.6	0.0	0.0	1025.8	573.1	272.1	277.0
2011–12	^f 238.0	432.3	1.7	0.0	0.0	884.1	623.2	309.5	317.6

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹⁴ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2013b).

Table W 3.14c Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Queensland

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹⁴	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	138.3	292.5	np	np	301.5	411.6	486.7	156.4	13.0
2001–02	147.6	321.1	0.0	^f 364.4	465.6	528.7	475.8	109.6	^f 20.1
2002–03	^f 125.7	334.4	0.0	^f 175.6	398.6	481.8	502.4	105.6	^f 13.3
2003–04	^f 141.1	492.9	0.0	^f 274.4	398.0	530.3	695.6	137.2	^f 16.0
2004–05	^f 110.4	358.0	0.0	^f 393.7	455.0	548.9	554.3	153.8	^f 18.4
2005–06	131.2	np	0.0	321.8	490.3	643.7	815.0	265.5	29.6
2006–07	130.5	np	0.0	114.0	570.9	1129.7	935.3	247.6	^f 44.7
2007–08	^f 143.6	np	0.0	65.4	446.7	^f 802.1	904.3	^f 308.0	30.9
2008–09	^f 193.9	370.3	0.0	310.7	537.1	734.8	831.1	254.1	^f 23.3
2009–10	^f 177.6	299.9	0.9	270.5	np	699.8	721.2	261.2	^f 31.0
2010–11	134.5	^f 191.7	0.6	638.5	374.1	636.2	981.9	216.2	31.6
2011–12	^f 131.4	212.1	^g 0.1	915.3	645.9	650.6	726.4	237.0	16.7

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.¹⁴ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2013b).

Table W 3.14d Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Western Australia

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹⁴	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	36.3	np	np	np	6.6	100.0	169.4	73.8	81.2
2001–02	^f 35.4	np	0.0	np	5.9	101.1	160.0	65.6	^f 61.5
2002–03	np	np	0.0	0.0	8.3	105.2	159.8	62.2	^f 81.9
2003–04	np	np	0.0	0.0	7.2	119.6	177.2	72.8	^g 114.8
2004–05	np	np	0.0	0.0	np	^f 128.6	155.8	^f 86.1	^f 95.5
2005–06	48.7	np	0.0	0.0	^f 5.6	150.3	244.5	172.4	79.1
2006–07	np	np	np	np	np	153.8	234.6	166.4	^f 90.8
2007–08	64.4	np	0.0	0.0	3.6	161.5	315.0	np	110.7
2008–09	0.0	np	0.0	0.0	0.0	194.3	297.3	155.1	78.6
2009–10	^f 64.6	np	0.0	0.0	0.0	150.0	253.4	132.9	^g 109.3
2010–11	100.1	^g 56.3	^g 0.5	^g 0.1	^g 0.0	165.9	286.3	103.8	92.1
2011–12	71.5	52.2	0.0	0.0	0.0	^f 158.2	304.0	^f 90.1	^f 106.6

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.^g Estimate has a relative standard error of 25% to 50% and should be used with caution.¹⁴ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2013b).

Table W 3.14e Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—South Australia

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹⁴	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	137.4	90.2	0.0	0.0	0.0	236.2	251.2	35.9	663.9
2001–02	138.8	119.4	0.0	0.0	0.0	240.1	251.7	35.7	639.8
2002–03	^f 139.4	129.6	0.0	0.0	0.0	216.5	232.3	^f 34.4	527.1
2003–04	144.4	143.9	0.0	0.0	0.0	238.8	246.4	37.5	696.1
2004–05	^f 140.6	121.3	0.0	0.0	0.0	277.5	280.8	40.4	614.5
2005–06	154.5	np	0.0	0.0	0.0	304.7	374.9	70.9	556.3
2006–07	^f 152.6	np	0.0	0.0	0.0	361.8	404.7	58.0	398.3
2007–08	^f 195.0	np	0.0	0.0	0.0	224.3	519.1	60.1	728.8
2008–09	^f 184.9	np	0.0	0.0	0.0	307.3	455.9	^f 40.5	502.9
2009–10	^f 140.8	141.8	0.0	0.0	0.0	260.0	392.9	48.6	376.0
2010–11	135.5	160.6	0.0	0.0	0.0	263.9	476.6	46.2	346.5
2011–12	^f 152.7	115.8	0.0	0.0	0.0	304.4	490.6	32.6	343.0

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

¹⁴ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2013b).

Table W 3.14f Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Tasmania

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹⁴	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	77.0	74.0	0.0	0.0	0.0	44.5	137.3	11.5	7.2
2001–02	135.6	89.9	0.0	0.0	0.0	^f 48.8	152.8	9.5	^f 5.5
2002–03	81.7	109.5	0.0	0.0	0.0	^f 54.0	149.9	10.4	8.3
2003–04	109.2	105.9	0.0	0.0	0.0	^f 51.4	158.0	12.3	^g 15.0
2004–05	126.8	108.2	0.0	0.0	0.0	^f 56.3	155.0	13.1	^g 13.3
2005–06	132.7	np	0.0	0.0	0.0	41.4	188.9	39.3	10.2
2006–07	162.5	np	0.0	0.0	0.0	56.5	167.6	33.3	10.5
2007–08	^f 223.3	np	0.0	0.0	0.0	64.1	210.6	np	22.5
2008–09	254.2	np	0.0	0.0	0.0	^f 74.5	217.3	^f 27.3	^f 13.7
2009–10	195.2	161.8	0.0	0.0	0.0	72.8	201.8	21.0	18.1
2010–11	213.9	120.0	0.0	0.0	0.0	79.6	170.4	27.3	14.8
2011–12	221.1	110.8	0.0	0.0	0.0	73.4	178.1	23.0	17.4

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.

^g Estimate has a relative standard error of 25% to 50% and should be used with caution.

¹⁴ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2013b).

Table W 3.14g Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Northern Territory

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹⁴	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	np	np	np	0.0	0.0	np	1.4	3.3	np
2001–02	np	np	0.0	0.0	0.0	np	1.2	np	np
2002–03	np	np	0.0	0.0	0.0	np	1.1	np	np
2003–04	np	np	0.0	0.0	0.0	np	2.2	3.5	5.7
2004–05	np	np	0.0	0.0	0.0	np	np	4.0	8.1
2005–06	np	np	0.0	0.0	0.0	35.7	np	^f 8.5	np
2006–07	np	np	0.0	0.0	0.0	52.0	np	6.1	np
2007–08	0.0	np	0.0	0.0	0.0	^f 34.4	14.3	np	5.4
2008–09	np	np	0.0	0.0	0.0	np	np	^f 10.3	^f 3.2
2009–10	0.0	np	0.0	0.0	0.0	39.1	np	5.8	np
2010–11	0.0	^f 3.7	0.0	0.0	0.0	37.6	40.6	6.6	3.8
2011–12	0.0	8.4	0.0	0.0	0.0	42.4	39.8	np	2.5

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.¹⁴ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2013b).

Table W 3.14h Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Australia

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹⁴	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	1 553.9	1 300.0	350.3	1 220.5	308.3	1 454.6	1 625.5	536.5	1 319.6
2001–02	1 891.2	1 591.1	326.8	1 283.1	471.5	1 644.1	1 593.2	505.3	1 384.1
2002–03	1 505.5	1 598.1	152.5	^f 834.3	406.9	1 682.6	1 532.7	467.9	1 142.7
2003–04	1 627.4	1 858.6	179.8	658.1	405.5	1 779.2	1 856.8	588.0	1 482.2
2004–05	1 802.5	1 596.2	100.6	^f 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	^f 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	^f 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	1 450.6	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	^f 248.1	2 155.3	645.9	2 428.6	2 630.5	893.7	971.5

^f Estimate has a relative standard error of 10% to less than 25% and should be used with caution.¹⁴ See end notes.

np Not available for publication, but included in totals where applicable, unless otherwise indicated.

Source: ABS (2013b).

CHAPTER 4

Health and emissions

Table W 4.1 Water quality—percentage of population in zones where compliance with microbiological standards was achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
2005–06	97.4	99.8	91.9	100.0	100.0		100.0	100.0
2006–07	98.9	99.8	92.1	100.0	100.0		100.0	100.0
2007–08	99.6	100.0	91.6	100.0	100.0		100.0	100.0
2008–09	100.0	100.0	90.5	100.0	100.0		100.0	100.0
2009–10	100.0	100.0	94.5	100.0	100.0		100.0	100.0
2010–11	100.0	99.9	94.6	100.0	100.0		100.0	100.0
2011–12	100.0	100.0	97.3	100.0	100.0		100.0	100.0
2012–13	99.2	100.0	99.8	100.0	100.0		98.9	100.0

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 4.2a Water quality—number of urban zones where microbiological compliance was achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	92	443	149	8	42		5	4
2006–07	95	470	149	8	42		7	4
2007–08	92	473	148	8	42	0	9	4
2008–09	104	469	148	8	41		3	4
2009–10	100	473	220	8	36	63	3	4
2010–11	98	472	193	8	36	64	3	4
2011–12	103	425	169	8	36	72	3	4
2012–13	106	464	215	10	37	68	3	4

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 4.2b Water quality—number of urban zones where microbiological compliance was measured, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	107	459	157	8	42		7	4
2006–07	106	474	157	8	42		7	4
2007–08	104	475	157	8	42	0	9	4
2008–09	109	471	158	8	41		3	4
2009–10	104	473	223	8	36	96	3	4
2010–11	102	475	205	8	36	100	3	4
2011–12	104	427	171	8	36	99	3	4
2012–13	113	465	229	10	37	90	3	

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 4.2c Water quality—percentage of urban zones where microbiological compliance achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>per cent</i>								
2005–06	86.0	96.5	94.9	100.0	100.0		71.4	100.0
2006–07	89.6	99.2	94.9	100.0	100.0		100.0	100.0
2007–08	88.5	99.6	94.3	100.0	100.0		100.0	100.0
2008–09	95.4	99.6	93.7	100.0	100.0		100.0	100.0
2009–10	96.2	100.0	98.7	100.0	100.0	65.6	100.0	100.0
2010–11	96.1	99.4	94.1	100.0	100.0	64.0	100.0	100.0
2011–12	99.0	99.5	98.8	100.0	100.0	72.7	100.0	100.0
2012–13	93.8	99.8	93.9	100.0	100.0	75.6	100.0	100.0

¹ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC (2014b).

Table W 4.3a Water quality—number of urban zones where chemical compliance was achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
2005–06	88	390	111	8	42		4	4
2006–07	85	429	111	7	42		4	4
2007–08	91	398	110	7	42		2	4
2008–09	100	422	106	7	41		1	4
2009–10	91	433	161	8	36	89	3	3
2010–11	97	426	169	7	36	92	3	4
2011–12	102	418	138	5	36	90	3	4
2012–13	110	455	206	8	37	78	3	4

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 4.3b Water quality—number of urban zones where chemical compliance was measured, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
2005–06	105	420	131	8	42		4	4
2006–07	104	467	131	8	42		7	4
2007–08	102	434	131	8	42		9	4
2008–09	108	463	134	8	41		3	4
2009–10	104	466	186	8	36	93	3	4
2010–11	102	475	185	8	36	100	3	4
2011–12	104	427	151	8	36	99	3	4
2012–13	113	465	225	10	37	90	3	4

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 4.3c Water quality—percentage of urban zones where chemical compliance achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
(per cent)								
2005–06	83.8	92.9	84.7	100.0	100.0		100.0	100.0
2006–07	81.7	91.9	84.7	87.5	100.0		57.1	100.0
2007–08	89.2	91.7	84.0	87.5	100.0		22.2	100.0
2008–09	92.6	91.1	79.1	87.5	100.0		33.3	100.0
2009–10	87.5	92.9	86.6	100.0	100.0	95.7	100.0	75.0
2010–11	95.1	89.7	91.4	87.5	100.0	92.0	100.0	100.0
2011–12	98.1	97.9	91.4	62.5	100.0	90.9	100.0	100.0
2012–13	97.3	97.8	91.6	80.0	100.0	86.7	100.0	100.0

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC (2014b).

Table W 4.4 Environmental pollution—sewer overflows to the environment per 100 kilometres of main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ⁱ	NT	ACT
2005–06	59.9	14.1	7.1	12.9	8.5		5.3	77.0
2006–07	65.2	16.0	6.3	18.5	10.3		5.1	82.0
2007–08	46.9	14.1	3.8	22.3	9.3		5.1	80.0
2008–09 ^h	0.7	0.4	3.1	0.5	0.5		0.7	9.0
2009–10	0.8	0.5	3.6	0.4	1.0		0.3	8.5
2010–11	0.5	0.5	3.8	0.7	0.2		0.7	3.1
2011–12	0.9	0.4	3.6	0.5	0.2		4.3	1.9
2012–13	0.9	0.7	0.7	0.6	0.2		1.5	2.0

^h Prior to 2008–09, data are provided for all sewer overflows to the environment. From 2008–09 onwards, statistics relate only to sewer overflows reported to the environmental regulator.

ⁱ See end notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2014b).

Table W 4.5a Urban water supply emissions—greenhouse gas (carbon dioxide equivalent) emissions from urban water supply, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
tonnes of CO ₂ equivalent								
2005–06	329 856	162 964	77 424	133 748	218 648		14 873	14 819
2006–07	321 156	161 119	69 892	192 187	225 326		15 594	19 471
2007–08	287 485	176 277	75 734	219 391	326 490		15 755	24 393
2008–09	257 386	195 074	65 952	240 942	287 938		16 378	26 898
2009–10	273 154	184 307	123 826	105 267	282 067		16 626	20 211
2010–11	252 741	103 405	148 517	96 986	315 360		13 413	6 683
2011–12	261 078	132 055	227 932	305 958	374 753		15 281	5 281
2012–13	271 924	123 284		176 354	411 703		15 910	6 798

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2014b).

Table W 4.5b Urban water treatment emissions—greenhouse gas (carbon dioxide equivalent) emissions from sewerage, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>tonnes of CO₂ equivalent</i>								
2005–06	383 828	272 988	213 465	51 627	124 143		2 596	12 926
2006–07	392 723	285 570	207 490	79 484	136 143		2 142	16 985
2007–08	393 897	272 087	223 782	93 137	145 105		2 077	21 432
2008–09	497 405	273 797	415 182	89 768	155 109		1 919	34 425
2009–10	500 372	274 317	683 300	57 668	158 876		2 304	31 658
2010–11	539 674	293 403	685 708	75 125	167 191		2 292	32 985
2011–12	488 367	263 836	735 785	96 523	165 184		2 824	33 471
2012–13	408 219	306 407		70 395	150 593		3 463	35 450

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2014b).

Table W 4.5c Water emissions—greenhouse gas (carbon dioxide equivalent) emissions from other activities, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>tonnes of CO₂ equivalent</i>								
2005–06	146 156	5 384	476 509	137 535	12 117		16 478	2 741
2006–07	148 162	5 462	477 948	221 340	12 404		17 066	3 602
2007–08	46 050	6 542	476 847	263 302	14 758		17 084	4 512
2008–09	- 73 270	28 741	1 095 589	8 368	13 081		723	4 269
2009–10	- 131 995	12 411	22 440	8 483	13 340		621	9 680
2010–11	- 197 393	13 804	19 867	576	12 871		760	14 619
2011–12	- 253 513	- 19 554	32 920	1 173	13 148		795	9 488
2012–13	- 158 172	9 071		2 612	8 087		788	3 328

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2014b).

Table W 4.6 Rural water supply emissions—greenhouse gas (carbon dioxide equivalent) emissions from rural water supply, by state/territory

Financial year	New South Wales	Victoria	Queensland	South Australia	Western Australia
<i>tonnes of CO₂ equivalent</i>					
2006–07	6,689	29,324	59,178	18,828	0
2007–08	6,621	29,386	38,212	15,343	595
2008–09	6,082	29,631	37,126	13,717	355
2009–10	5,659	22,695	50,682	11,796	602
2010–11	4,654	12,854	16,352	9,466	1,265
2011–12	-	35,511	16,352	17,260	1,225
2012–13	5,441	42,802	16,352	17,675	460

Source: BITRE estimates based on NWC et al. (2014b).

Table W 4.7a Energy emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from industrial wastewater

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT
<i>gigagrams of CO₂ equivalent</i>							
1990	538.4	581.3	464.6	198.7	142.9	62.3	3.2
1991	527.4	572.1	451.0	193.2	139.5	60.2	3.1
1992	510.7	557.5	433.1	186.2	134.7	57.7	3.1
1993	488.0	537.9	415.0	177.6	128.6	54.9	2.9
1994	471.4	525.9	399.2	170.4	123.8	52.3	2.9
1995	438.7	493.7	373.4	157.9	114.8	48.2	2.7
1996	401.7	459.0	343.5	143.9	104.8	43.7	2.5
1997	380.8	442.0	320.3	133.2	98.3	39.5	2.4
1998	356.2	418.8	302.3	124.4	91.7	36.7	2.2
1999	339.1	405.9	287.0	117.6	87.0	34.5	2.2
2000	324.2	393.8	277.9	112.8	83.2	33.1	2.1
2001	357.8	425.2	306.6	129.3	92.6	37.9	2.2
2002	339.4	410.8	290.9	129.2	87.3	35.3	2.1
2003	306.5	372.3	265.7	118.2	78.3	31.0	1.9
2004	311.4	375.9	269.4	120.9	79.5	31.5	2.0
2005	312.1	376.7	269.1	122.5	79.7	31.6	2.0
2006	313.4	378.2	263.0	122.4	79.9	31.5	2.0
2007	319.3	381.4	267.7	120.9	81.5	32.1	2.0
2008	318.0	378.0	267.1	123.6	81.1	32.0	2.0
2009	325.5	352.7	306.1	103.5	77.5	27.3	1.8
2010	307.6	304.6	296.5	91.0	71.0	24.3	1.7
2011	352.0	265.2	271.1	80.6	63.3	19.8	1.4
2012	305.1	227.4	317.9	74.9	62.9	17.6	1.3

Source: Environment (2014).

Table W 4.7b Water emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from domestic and commercial wastewater, sewer population

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT
<i>gigagrams of CO₂ equivalent</i>							
1990	454.8	584.0	212.7	78.4	197.4	63.6	16.5
1991	458.2	599.0	216.3	77.6	195.2	64.5	16.4
1992	462.3	612.0	219.9	76.6	192.3	65.0	16.2
1993	465.2	623.8	224.0	75.4	188.9	65.4	16.6
1994	465.0	631.9	227.3	73.4	184.7	65.4	16.3
1995	465.9	641.3	230.2	71.4	181.2	65.3	16.3
1996	472.0	656.2	235.3	70.3	179.0	65.6	16.2
1997	481.9	674.2	241.5	70.3	177.6	66.0	16.2
1998	486.2	688.5	244.5	69.2	174.3	65.9	16.0
1999	490.5	695.3	247.8	70.0	176.9	65.7	16.6
2000	496.6	384.3	251.4	70.3	179.3	65.6	16.8
2001	502.9	389.1	255.4	70.4	181.5	65.5	17.0
2002	509.6	393.8	260.9	71.1	162.4	65.5	17.1
2003	513.4	398.6	267.8	71.5	152.7	65.9	17.2
2004	516.9	403.3	273.9	71.9	155.5	66.6	17.1
2005	520.4	407.3	279.1	72.2	157.6	67.0	17.3
2006	523.2	415.7	289.3	73.0	161.9	67.7	17.9
2007	529.9	422.8	296.3	73.6	165.9	68.1	18.3
2008	549.7	441.9	298.0	75.5	166.3	68.7	18.7
2009	564.4	433.1	323.1	47.4	153.1	68.3	18.7
2010	572.8	475.9	284.5	33.7	198.6	67.2	17.1
2011	607.4	390.2	277.2	53.6	136.2	67.5	18.4
2012	577.5	324.1	289.6	79.5	174.4	68.5	17.8

Source: Environment (2014).

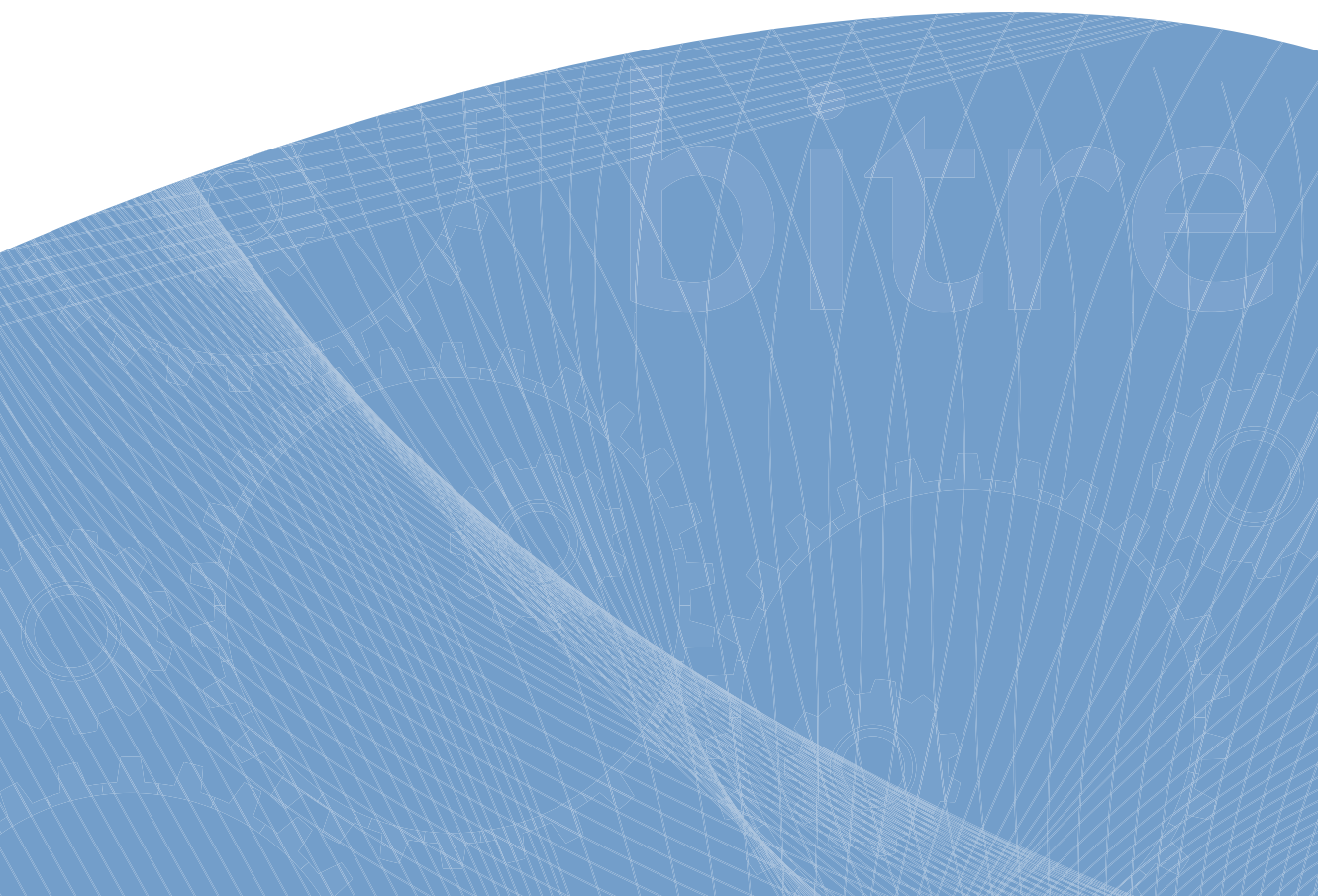
Table W 4.7c Water emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from domestic and commercial wastewater, unsewered population

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT
<i>gigagrams of CO₂ equivalent</i>							
1990	13.4	49.8	26.9	12.1	26.7	4.7	2.6
1991	12.9	46.0	24.1	10.8	24.3	4.8	2.3
1992	12.4	42.1	21.1	9.5	21.8	4.8	2.0
1993	11.8	37.9	18.0	8.0	19.2	4.9	1.7
1994	11.3	33.6	14.8	6.6	16.5	4.9	1.4
1995	10.7	29.4	11.4	5.2	13.8	4.9	1.1
1996	10.1	25.2	7.8	3.7	11.1	4.9	0.7
1997	9.6	20.9	4.0	2.3	8.2	4.9	0.4
1998	8.9	16.5		0.8	5.2	4.9	
1999	8.9	16.4		1.3	5.2	4.9	0.3
2000	9.2	16.3	6.9	1.4	5.4	4.9	0.3
2001	9.4	13.8	6.6	1.4	5.4	4.9	0.4
2002	9.8	12.5	7.8	1.9	5.5	4.9	0.5
2003	9.8	12.6	7.7	2.0	5.6	4.9	0.6
2004	9.7	12.6	7.9	2.1	5.7	5.0	0.5
2005	9.7	12.7	8.0	2.1	5.8	5.0	0.6
2006	9.8	13.0	8.4	2.2	6.0	5.1	0.6
2007	9.9	13.3	8.6	2.2	6.2	5.1	0.6
2008	10.1	13.6	8.8	2.2	6.4	5.1	0.6
2009	10.3	13.9	9.1	2.3	6.6	5.2	0.6
2010	10.4	14.1	9.3	2.3	6.7	5.2	0.6
2011	10.4	14.1	9.1	2.3	6.9	5.3	0.6
2012	10.5	14.9	9.3	2.3	7.1	5.3	0.6

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: Environment (2014).

End notes and definitions



End notes and definitions

This publication presents annual estimates of activity related to major Australian economic infrastructure (transport, energy, communication and water infrastructure). These estimates were compiled from a range of sources. Where possible, statistics are presented on a financial year basis (year ended 30 June). Throughout this publication, end notes are numbered consecutively within each part. To avoid duplication, an end note is explained under the heading of the table in which it first occurs.

Part I Infrastructure and the economy

Industry statistics provided in this publication are based on the Australian and New Zealand Standard Industrial Classification (ANZSIC) (ABS 2008). Industry classification is allocated to businesses based on each business' predominant activity. As such, there is a distinct difference between industry statistics and activity statistics. For example, road transport gross value added is a measure of the economic production of Australian businesses for which the provision of road transport services is the major activity. Road transportation services provided by businesses classified to other industries (e.g. delivery services provided by the retail industry) are not included in these estimates and conversely, non-transportation activities undertaken by businesses classified to the road transport industry are included in these estimates.

Table I 1.1

Gross value added is the value of output at basic prices minus the value of intermediate consumption at purchasers' prices. The term is used to describe gross product by industry and by sector.

1. 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.
2. 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 GDP at market (or purchasers') prices is the value of taxes less subsidies on products.
3. The rail, pipeline and other transport industry includes water transport.

Table I 1.2

Table I 1.2 provides estimates for total employment by major infrastructure industries in August each year, including both full-time and part-time employment.

4. From 1986, the definition of employed persons was 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 I 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).

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.

5. 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).
6. Caution should be exercised when comparing data across years. The Survey of Employee Earnings and Hours is not designed as a times 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. That is, they may differ from the estimates that would have been produced if the information had been obtained from all employers. A measure of sampling error is calculated (standard error), which indicates the degree to which an estimate may vary from the value which would have been obtained from a census of all employers. There are about two chances in three that a sample estimate differs from the true value by less than one standard error and about nineteen chances in twenty that the difference will be less than two standard errors.

An example of the use of a relative standard error (standard error expressed as a percentage of the estimate) is as follows. If the estimate for average earnings is \$500 with a relative standard error of 1 per cent then there would be about two chances in three that a full enumeration would have given an estimate in the range \$495 to \$505 and about nineteen chances in twenty that it would be in the range \$490 to \$510.

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

State and territory 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, and are derived and updated by adding estimates of natural increase and net overseas migration. After each census, population estimates are revised to remove discrepancies between census outcomes. In 2014, ABS revised population estimates from 2003 to 2013 which created a break in the data series between 2002 and 2003.

7. ACT capital city data include Queanbeyan (NSW) for the period 1971 to 1990.
8. Excludes Jervis Bay Territory from June 1994.
9. Data for 1991 to 1995 are based on 2001 Australian Standard Geographical Classification boundaries.
10. Data for 1995–96 onwards are based on 2006 Australian Standard Geographical Classification boundaries.
11. In June 2011 the ABS replaced the nation's official statistical geography, the ASGC with the new Australian Statistical Geography Standard (ASGS).
12. Rest of state estimates are calculated by subtracting the capital city population from the corresponding state/territory total population.

Table I 1.6

Table I 1.6 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).

13. The exchange rate data provided represent the \$US value of one Australian dollar.
14. 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).

Table I 2.1

Table I 2.1 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. Deflators for these chain volume measures were calculated by BITRE and applied to estimates for transport construction to create approximate volume adjusted estimates for transport engineering construction.

Part T 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.

Table T 1.2

BITRE regularly prepares estimates of road expenditure based on unpublished ABS Government Finance Statistics (GFS) data and internal Department of Infrastructure 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 1.2e provide estimates of construction and maintenance expenditure on road infrastructure by:

- each level of government from their own sources rather than the total expenditure on roads by that level 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 GFS Government Purpose Classification (GPC) code 121 is used for state government road expenditure. From the 2014 issue of the yearbook GPC 1219 (Road transport n.e.c.) is included in the calculation for all years where previously it was excluded—this has increased the values reported in this issue compared to previous years. Entries in this category relate to road construction and maintenance not elsewhere classified. Economic Type Framework (ETF) category 2221 (Purchase of new non-financial assets) is also included (ABS 2014f). GPC 1211 (Aboriginal community road transport services) remains excluded from the calculation. The GFS expenses categories which are excluded are: 123 (Depreciation and amortisation) and 126 (Property expenses).

Estimates are adjusted for inflation and presented at constant 2012–13 prices calculated using the BITRE Road Construction and Maintenance Price Index (BITRE 2013).

Table T 1.3

This table provides estimates of selected road-related taxes and charges in current prices. The table is not comprehensive as it excludes Fringe Benefit Tax (FBT) on vehicles, and Goods and Services Tax (GST) on motor vehicle purchase, maintenance and vehicle fuel consumption. It is difficult to estimate road-related FBT and GST because these items in recent years are aggregated, in official reports, with other non-road related items.

Commonwealth road-related revenue comprises of petroleum products excise and Federal Interstate Registration Scheme. Estimates of petroleum products excise are based on a combination of sources including Australian Taxation Office's Taxation Statistics and Commonwealth budget papers. The figures are net of any rebates to industry and are modified using ABS survey of motor vehicle usage to net out excise on products for off-road vehicle movement.

State and Territory Government road-related revenues estimated are vehicle registration fees, driver license fees and stamp duty on vehicles. The first two items are based on data supplied by relevant state and territory agencies. Data on stamp duty are from ABS Taxation Revenue Australia (ABS cat. no. 5506.0)

The time series on tolls is constructed from various sources including: annual reports of the NSW Roads and Maritime Services (and its predecessors) and Transurban at <<http://www.transurban.com>>. The table covers the following toll roads: Sydney Harbour Tunnel (M1), Eastern Distributor (M1), Sydney Harbour Bridge (M2), Lane Cove Tunnel (M2), Hills Motorway (M2), Western Motorway (M4), South Western Motorway (M5), Westlink (M7), Cross-City Tunnel, M4/M5 cashback scheme CityLink, EastLink, Logan and Gateway Motorways, Clem Jones Tunnel and Go Between Bridge.

T 1.4

1. 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.
2. State boundaries are derived from the 2011 Australian Statistical Geography Standard (ASGS) (ABS, 2011). Urban/non-urban estimates are based on ASGS Significant Urban Areas.
3. Busway lengths are not available for 2010 and 2011 because PSMA did not classify 'Busway' as a road type until 2012.
4. 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.
5. Local roads are defined as 'roads providing property access, or distributing traffic between properties and the arterial network', in line with PSMA classifications. Note that this 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.

6. 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 in 2012 and 2013; an estimate is used for 2010 and 2011.
7. 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 (a cumulative effect of approximately 6,500 kilometres in the period 2010–2013).
8. These estimates are not directly comparable to the road lengths reported in the 2013 Infrastructure Yearbook, as the methodology has changed.

Table T 1.5

Table T 1.5 includes a mix of indexes from ABS and BITRE sources. ABS Producer Price Indexes (ABS 2014f) 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 1.5 are a mean of the four relevant quarters.

Table T 1.6

From the 2014 issue of the yearbook BITRE publishes estimates of expenditure on rail infrastructure based on unpublished ABS Government Finance Statistics (GFS) data and internal Department of Infrastructure and Regional Development data. Tables T 1.6a to T 1.6d provide estimates of construction and maintenance expenditure on railway infrastructure:

- by Commonwealth and State/Territory government from their own sources rather than the total expenditure on rail by that level 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).

The GFS Government Purpose Classification (GPC) code 123 is used for state government road expenditure. Economic Type Framework (ETF) category 2221 (Purchase of new non-financial assets) is also included (ABS 2014f). The GFS expenses categories which are excluded are: 123 (Depreciation and amortisation) and 126 (Property expenses).

It should be noted that in state expenditure table T 1.6b 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 from General Government to Public Non-Financial Corporations. The sum of Public Corporations and Total Government in tables T 1.6c and 1.6d will not add to Total Public Sector for the same reason.

Table T 1.6b, 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-modal Urban Transport).

Estimates adjusted for inflation and are presented at constant 2012–13 prices calculated using the ABS Gross Domestic Product deflator with June quarter 2013 as the base period (ABS 2014b).

Domestic freight transport

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 (ABS 2013d). 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, although experimental estimates were modelled for 2008).

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 2006a). A detailed description of BITRE modelling techniques for freight data is provided in *Freight Measurement and Modelling* (BITRE 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 (BITRE 2006a).

9. 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.
10. Estimates of tonne kilometres 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 2012c). The calculation methodologies differ between publications.

Air Freight

For some time, estimates have only been available in respect of Australia's international air freight tonnage (Table T 6.2). BITRE recently commenced data collection of domestic air freight statistics (Table T 2.1 and Table T 6.3). Air freight statistics 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. State and territory estimates of road freight relate to the state or territory of vehicle registration, or in the case of sea freight, the state or territory of loading.

11. 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'.

Passenger transport

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 is derived from a statistical model that creates estimates for all motorised modes of passenger transport. Vehicles not classified to passenger cars, buses, rail or air are included in 'other transport mode' (Table T 3.1).

I2. The other transport mode represents primarily non-business 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 were made for Estimating Urban Traffic Congestion Cost Trends for Australian Cities (BTRE 2007) and have been updated using BITRE models. Estimates of passenger kilometres travelled in commercial vehicles primarily represent non-business use of light commercial vehicles. Data for cars, light commercial vehicles and motorcycles were drawn from successive Surveys of Motor Vehicle Use. Data on rail, light rail and buses up to 2000 were drawn from quarterly surveys of state authorities and stored on BITRE transport indicators database.

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.

I3. 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:

Map T 4.1

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 shortest route as provided by whereis.com.au.

Tables T 4.2–T 4.5

Estimates for motor vehicle usage are modelled by BITRE, primarily from data compiled by the SMVU (ABS 2013d). In addition to the SMVU, modelling of passenger transport also incorporates fuel use statistics from the monthly Australian Petroleum Statistics published by the Bureau of Resources and Energy Economics (BREE). 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.

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 2014k) 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 2014n). 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

14. Licence count data include driver licences with an active status. They do not include driver licences with the following status;

- Cancelled;
- Surrendered;
- Expired; or
- Disqualified.

Provisional and learner driver permits are included in licence counts.

Licence count data also include other classes of car licences, so are not directly comparable to data in Table 4.12. Caution should also be taken when comparing licence counts between jurisdictions due to small differences in the classification of “active” licences.

Total licence holder counts include licences where gender is not specified or not recorded as male or female.

Tables T 4.12

15. 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)
- 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)

WA Licence data by class are not available.

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:

- Dry Creek South freight yards.
- 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—Perth/Darwin freight
- Canberra—Perth/Darwin freight

Lithgow/Parkes route for:

- Sydney—Adelaide/Perth/Darwin passenger
- Brisbane—Adelaide/Perth/Darwin passenger

Melbourne route for:

- Brisbane—Adelaide freight
- 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

16. “Open” railways include heritage railways; “mothballed” lines (that is, lines with no scheduled or unscheduled services) are excluded. Also excluded are Queensland narrow-gauge (610 mm) sugar tram lines—estimated to be around 4 000 route-kilometres.
17. Railway route length refers to lines that are operational. The reduction in route length between 2013 and 2014 is primarily due to the closure of some grain lines in Western Australia. Small changes also occurred in other states, primarily due to the mothballing of some regional lines. There are ongoing discussions among interested parties to re-open a number of grain lines in Western Australia as well as the Demondrille—Greenthorpe/Blayney lines in NSW.

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.

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

- 18. Revenue passengers are fare paying passengers uplifted from or discharged in Australia.
- 19. Number of international revenue passengers uplifted from or discharged in Australia as well as passengers carried via Australia by Qantas and Emirates (from November 2011) divided by the number of available seats.
- 20. 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.
- 21. Domestic revenue passenger kilometres divided by available seat kilometres.

Table T 6.4

- 22. 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).

- 23. Participating airlines are Jetstar, Qantas, QantasLink, Regional Express, Tigerair, 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.

24. Improvements have been made to the methodology used to compile estimates of port calls, with revisions back to 1998–99.

25. From 2002–03 numbers include only cargo ships.

Table T 7.4

Data for international sea freight was compiled by BITRE from ABS international cargo statistics that were provided to the ABS by Australian Customs. The classification of cargo to bulk or non-bulk categories was an approximation based on the ship type. Liners were assumed to be non-bulk carriers and non-liners were assumed to be bulk carriers.

Liners carry mostly containerised, roll-on roll-off, and general cargo. They operate on a fixed schedule between specified ports and accept cargo from all sources. Non-liner cargo includes all dry and liquid bulk cargo as well as cargo not carried on regular liner services.

26. Since 2008–09, bulk and non-bulk categories are no longer available from ABS International cargo statistics. Numbers provided from 2008–09 are BITRE estimates.

Tables T 7.5–T 7.7

Tables T 7.5, T 7.6 and T 7.7 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.

27. International Trade cargo statistics are no longer available, so merchandise trade data have been used and back-cast to 2005–06 for comparative purposes. 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. The timing of the data supply has also changed to now include fully revised data.

28. Port throughput data may differ slightly from data reported directly by port authorities.

Table T 7.9

Table T 7.9 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 7.10–T 7.11

A list of the major Australian registered trading vessels (greater than 2000 dwt) engaged in Australian coastal and international trade is provided in Tables T 7.10 and T 7.11. 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). Data are not currently available for the number of rail fatality 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).

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.

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.

29. Between 1989 and 1997, statistics for serious injuries resulting from road accidents were based on statistics compiled from police accident reports. Comparable national statistics are no longer available from these sources.
30. 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.

Tables T 8.10–T 8.12

Rail safety statistics are sourced from the Office of the National Rail Safety Regulator (ONRSR) and QLD and WA state rail regulators. SA, NT, TAS, and NSW data are provided by the ONRSR. Historic NSW and VIC data are sourced from:

- The Independent Transport Safety Regulator (ITSR) under a service level agreement with the ONRSR (for data pre-20 Jan 2013).
- Transport Safety Victoria under a service level agreement with the ONRSR (for data pre-19 May 2014).

QLD data are provided by the Department of Transport and Main Roads (QLD), WA data are provided by the Office of Rail Safety, Department of Transport (WA) and ACT data are included in the NSW counts.

Rail occurrence data for 2012 onwards include only heavy rail (excluding tram, non-heavy rail tourist and heritage operators) operations. Fatality and serious injury data excludes suspected suicide and trespass.

31. 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.

32. ACT rail fatalities are recorded under NSW.

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.

33. Includes all LPG production and trade.

34. 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 include directly radiative gases only (carbon dioxide, methane and nitrous oxide). The estimates of carbon dioxide equivalent emissions do not include the indirect effects of gases such as carbon monoxide, nitrogen oxides and non-methane volatile organic compounds. 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.

Greenhouse gas emissions presented in Australian infrastructure statistics yearbook 2014 represent emissions from end-use activity only. That is, they do not include emissions from 'upstream' activity (primarily fuel refining). Greenhouse gas emission estimates provided in Australian Transport Statistics Yearbook 2009 were presented on a 'full fuel cycle' basis (inclusive of 'upstream' emissions).

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 (BTRE 2006b).

Part E 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. For the 2014 issue of Yearbook, estimates are no longer provided for construction work done of Gas and other hydrocarbons projects. 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).

Table E 1.2, E 1.3 and E 3.6

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. In general, data have not been normalised to exclude distribution outages beyond the reasonable control of the network operator. However, adjustments have been made to estimates for Queensland in 2005–06 to take into account the impact of Cyclone Larry, and estimates for New South Wales in 2006–07 to take into account extreme storm activity in that year.

Raw inputs to energy supply

Table E 2.1

Australia's economic demonstrated mineral energy resources are estimated by Geoscience Australia using a methodology based on the McKelvey resource classification system. It classifies identified mineral resources according to two parameters: the degree of geological assurance and the degree of economic feasibility of exploitation.

The degree of geological assurance is determined by the results of geological testing. A demonstrated resource is considered to exist where the tonnage, density, shape, physical characteristics, grade and mineral content of a deposit can be estimated with a reasonable level of confidence. Overlaying the measure of geological assurance is the economic feasibility of the extraction or production of the mineral. A demonstrated mineral energy resource is determined to be economic when 'profitable extraction or production under defined investment assumptions has been established, analytically demonstrated, or assumed with reasonable certainty' (GA 2013).

Table E 2.2 and E 2.3

These tables show the input fuels used to generate electricity (Table E 2.2) and gas (Table E 2.3) measured in terms of energy units (petajoules) and physical measures (units vary depending on input fuel type). BREE presents energy use statistics in terms of energy units only; BITRE has converted these measures to physical units using conversion factors provided in Energy in Australia (BREE 2013a).

Energy production and usage

The majority of statistics provided in this chapter are sourced from the BREE Australian energy statistics (AES) database, as published on the BREE website. The AES uses a methodology which balances energy consumption estimates with production and trade estimates. As such, data from AES are internally consistent, but may differ slightly from individual source datasets.

Energy consumption estimates are provided as a net concept. That is, intermediate consumption of energy (energy used to produce energy products) is not included in estimates of total energy consumed (further explanation is provided in *Australian Energy Statistics*, BREE 2014b).

Where separate estimates for ACT are not provided in state/territory tables, ACT estimates are included with NSW estimates. Estimates of energy consumption by industry are compiled based on a modified form of the 1993 version of the Australia and New Zealand Standard Industry Classification (ANZSIC). The ANZSIC was updated in 2006, however the industry classification used for energy consumption estimates has not been updated to avoid breaks in time series and consequential breaches of confidentialised data.

For several detailed energy consumption tables, there are time series that are not published to preserve the confidentiality of individual responses. Where this has occurred, suppressed estimates have been included in totals.

Table E 3.10

In converting black coal consumption estimates from energy units (petajoules) to physical units (kilotonnes), a number of assumptions had to be made relating to the grade of coal used in each state/territory and industry. The energy content of solid fuels in Australia for some states and some categories of fuel are provided in *Energy in Australia* (BREE 2013a). Where the energy content of a fuel type is not available for a particular state, assumptions were made based on energy content of fuels used by similar industries or in nearby states.

For NSW, BITRE assumes that the representative grade of coal used by the food, beverages and tobacco industry is washed thermal coal, the grade of coal used by other manufacturing industries (including the suppressed industries: cement, lime, plaster and concrete; iron and steel; and basic non-ferrous metals manufacturing industries) is steelworks grade coal, and the coastal shipping bunkers and other industries use unwashed thermal coal. The electricity generation industry in NSW uses a grade of black coal specific to that industry.

For VIC, BITRE assumes that the representative grade of coal used by all manufacturing industries has the same energy content as NSW washed thermal coal. In addition, BITRE assumes that non-manufacturing industries use the same grade of coal as NSW non-manufacturing industries (unwashed thermal coal).

The electricity generation industry in QLD uses a grade of black coal specific to that industry and that state. For all other industries in QLD, BITRE assumes that the representative grade of coal is other non-export grade.

For SA, BITRE assumes that the representative grade of coal used by all manufacturing industries has the same energy content as NSW washed thermal coal. In addition, BITRE assumes that non-manufacturing industries use the same grade of coal as NSW non-manufacturing industries (unwashed thermal coal).

For WA and TAS, Energy in Australia (BREE 2013a) only provides one conversion factor for each state (thermal coal).

Table E 3.13

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.

- 1. Estimates of Australian petroleum fuel consumption include all petroleum fuels, but exclude petroleum-based lubricants and greases.

Table E 3.14

Annual world crude oil prices are presented as the average of quarterly prices compiled by BREE from posted or official selling prices with Rotterdam spot prices for Middle East and North Sea crudes.

- 2. Middle East crude, 32 American Petroleum Institute (API) gravity.
- 3. North Sea crude, 38 API gravity.
- 4. North American crude, 40 API gravity.
- 5. Australian crude, 42 API gravity.
- 6. 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 4.1

There are few datasets available that provide quality estimates of health-related issues for the production or use of energy in Australia. Annual estimates of hospital admissions due to exposure to electricity, radiation, or extreme temperature/pressure have been provided in Table E 4.1. Further disaggregation of these estimates to measure admissions by states is not possible.

Table E 4.2 and Table E 4.3

Greenhouse gas emissions provided elsewhere in the Yearbook are presented as direct or 'Scope 1' (National Greenhouse Gas Inventory terminology) emissions. This excludes upstream or indirect emissions from the conversion of energy to its final form. The National Greenhouse Gas Inventory defines 'Scope 2' emissions as 'indirect greenhouse gas emissions from the generation of purchased electricity'.

The sum of all estimates of the direct (Scope 1) greenhouse gas emissions for the electricity generation industry that are presented in Tables E 4.2 and E 4.3 are equal to the sum of Scope 2 emissions for all industries.

Part C 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.

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, while 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).

Investment in information technology

Table C 2.1 to Table C 2.3

These tables provide a statistical summary of investment in information technology assets by businesses classified to the information media and telecommunications industry, with assets classified by broad technology.

1. Gross fixed capital formation is a measure of total expenditure on new and second-hand fixed assets, less sales of fixed assets, which occur during the reference period.
2. Consumption of fixed capital represents the reduction in the value of fixed assets resulting from physical deterioration, obsolescence or accidental damage that occurs over the reference period.
3. Information technology net capital stock is a measure of the total value of all information technology capital assets held at the end of the reference period. The change in net capital stock from the end of one financial year to the next is equivalent to gross fixed capital formation (Table C 2.1) less consumption of fixed capital (Table C 2.2).

Subscribers and providers

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.

Price and activity

Table C 4.1

The numbers presented in Table C 4.1 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.

Table C 4.3

Table C 4.3 provides estimates of businesses undertaking internet commerce activity as a percentage of all businesses, including businesses with no internet connection.

Communications security

There is no known source for statistics on physical injuries associated with communications infrastructure. The Yearbook provides statistics on the number of telephone numbers listed on the ACMA Do Not Call register (covering unsolicited telemarketing calls and marketing faxes) and the number of 000 and 112 calls forwarded to emergency service organisations.

Part W 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.

Table W 1.2

Current value of water infrastructure assets are measured as the written down replacement costs of fixed water assets. This concept represents the 'current cost of replacing the service potential of fixed water and sewerage business assets based on current technology'

1. BITRE estimates for urban water supply are sourced from utility reports in the National Performance Report published by NWC et al. (2014b). BITRE aggregates reports only for those utilities with more than 10 000 connections. For the majority of states there are relatively few water utilities with less than 10 000 customers; however, Tasmania were the exception to this rule, with most Tasmanian utilities falling below this threshold. This recently changed, with utilities amalgamating into three large water providers. A trial set of estimates were compiled for Tasmania on the new basis in 2007–08. New data are being added to Yearbook as they become available.

Table W 1.3 to Table W 1.4

2. 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.
3. From 2010–11, data are sourced from Water Storage (BOM 2014b). 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)

Table W 1.5

Water and sewerage infrastructure capital expenditure includes all capital expenditure on new works, renewals or replacements, other expenditure that would otherwise be referred to as capital and recycling water assets.

Table W 1.6

Water treatment plants providing full treatment generally use multiple processes to achieve high quality water. In addition to filtration and disinfection, plants may also undertake processes for taste and odour reduction.

Table W I.7

The length of urban water mains includes all transfer, distribution, and reticulation mains, but excludes connections between mains and property meter, mains delivering recycled water for non-urban use (e.g. agriculture re-use), disused pipe lengths, privately owned mains, mains associated with source works (e.g. borefield mains), interconnecting mains between schemes or sources, and on-site mains within water facilities.

Table W I.9

This table provides estimates of the average number of water main breaks, bursts and leaks. Estimates exclude breaks in mains to meter connections and above-ground seepage that can be repaired without shutting down the main.

Table W I.10

Estimates of the number of sewerage treatment plants include all primary, secondary and tertiary level treatment plants.

Table W I.11

The length of sewerage mains and channels includes all trunk, pressure and reticulation mains, but excludes connections between mains and properties, and conduits carrying treated effluent downstream from treatment plants.

Table W I.13

The definition of recycled water treatment plants used in Table W I.13 includes sewerage treatment plants where the majority of treated water output has undergone additional treatment beyond tertiary standard for discharge to meet the requirements of the recycled water customer.

Table W I.14

This table provides estimates of the average number of breaks or chokes to sewer mains, where a break is any failure of a sewer main leading to an interruption to service and a choke is a confirmed partial or total blockage.

Table W I.15

A regulated river normally has a dam or weir structure that regulates or diverts the flow of water to storages or supply networks.

Table W I.16

Table W I.16 provides a measure of the current cost of replacing assets (excluding administration, buildings, furniture fittings, equipment, vehicles and corporate service networks). This measure does not take into account accumulated depreciation based on the age and remaining life of the assets.

Water inputs

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.

4. Includes mainland area and island area. Total Australian island area is 32,163 square kilometres.
5. NSW figures include estimates for New South Wales, the Australian Capital Territory and Jervis Bay territory.

Table W 2.2

Surface water sources include dams, rivers or irrigation channels.

Table W 2.3

The volume of water sourced from groundwater excludes water sourced from groundwater supplies that have been artificially recharged using sources of water already counted elsewhere, such as:

- rivers;
- desalination plants; and
- sewage treatment plants.

Other forms of artificial groundwater recharge (e.g. storm water) that have not already been counted are included.

Table W 2.5

The volume of water sourced from recycling includes all recycled water from direct or indirect reuse. This measure includes only recycled water used as a substitute for potable water.

Table W 2.6

The volume of residential sewage, non-residential sewage and non-trade waste includes volumes collected in the sewerage system due to stormwater, illegal connection inflow and infiltration to the sewerage system. Estimates of the volume of trade waste include liquid waste generated from any industry, business, trade or manufacturing process and stormwater collected in the trade waste system.

Table W 2.7

The consumer price index for water and sewerage services provides a measure of annual changes in the price to consumers of water and sewerage services.

Table W 2.9

The measure of treated waste water intake by the rural water supply network (Table W 2.9c) complements the measure of urban water sourced from recycling (Table W 2.5) as it represents the volume of recycled water that is not used as a substitute for potable water.

Table W 2.10

6. Entitlement trading includes, but is not limited to, water access entitlements. Water access entitlements are 'a perpetual or ongoing entitlement to exclusive access to a share of water from a specified consumptive pool as defined in the relevant water plan'.
7. Water allocations are 'the specific volume of water allocated to water access entitlements in a given season, defined according to rules established in the relevant water plan' (NWC 2014a)

Water supply and use

Table W 3.2 and Table W 3.5

Table W 3.2 provides estimates of the number of properties connected to the urban supply network, while Table W 3.5 provides estimates of the number of properties connected to urban sewerage services. To be included, properties must be connected to the networks as a separate entity. Properties that are connected but are non-rateable or non-metered are included, while properties that are rateable, but not connected are excluded. Strata title flats or units are counted as separate properties, but a site with no more than 10 per cent of its properties as non-strata title units may be counted as one property.

8. The volume of water supplied for other uses includes estimates of water used for firefighting, mains flushing, losses due to faulty meters, leakage and any other consumption.

Table W 3.6

9. Recycled water would generally be provided via a third (non-potable, non-sewerage) pipe system.
10. Includes recycled water supplied to golf courses, heavy industry and commercial areas.
11. Recycled water used to irrigate forestry, pastures for livestock and other agricultural products.
12. Recycled water used on-site at water treatment plants that is external to the treatment process.

Table W 3.8 and Table W 3.9

Table W 3.8 provides an estimate of the volume of water supplied to customer service points by rural water service providers, while Table W 3.9 provides an estimate of the volume of water consumed by agricultural activity. Conceptually, the majority of the difference between the estimates in the two tables represents rural water extracted from sources other than the major rural water service providers.

Table W 3.10

13. 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.
14. 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 3.12

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.

Table W 3.14

The gross value of irrigated agricultural production (GVIAP) is the value placed on recorded production of agricultural commodities produced with the assistance of irrigation at wholesale market prices (prices realised in the market place). GVIAP is not a measure of the value that irrigation adds to production.

Health and emissions

Urban supply water quality standards are either specified in the utility's licence or franchise agreement, set by the state health regulatory agency or government, or in the absence of a formal agreement, the compliance of utilities is measured against the Australian Drinking Water Guidelines (2004).

Water supply zones are generally a discrete area of similar water quality. Zones may be based on the area served by one treatment plant or an area that is easily described by its boundaries or system characteristics.

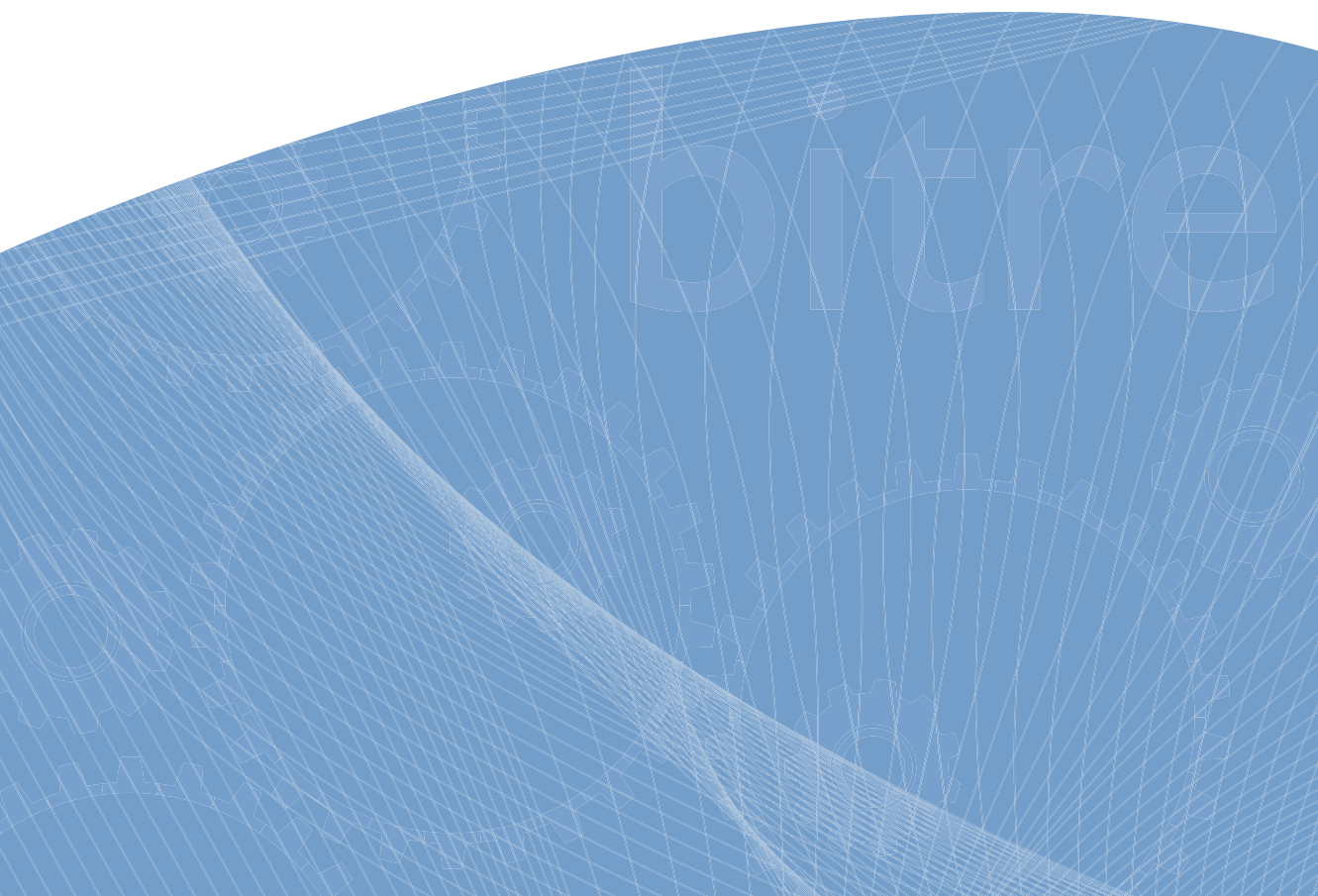
Table W 4.5, Table W 4.6 and Table W 4.7

Greenhouse gas emissions of transport, energy, communication or water activities can either be measured in terms of the direct emissions of the activity or all greenhouse gas emissions resulting from the activity (direct emissions plus upstream emissions, in particular the emissions resulting from the generation of purchased electricity). To avoid double counting, the preferred Yearbook greenhouse gas measures are for direct emissions only, with Table E 4.2 electricity generation emissions, representing all upstream emissions for the economy. In National Greenhouse Gas Inventory terminology, direct emissions represent 'scope 1' emissions, while emissions from the generation of purchased electricity represent 'scope 2' emissions.

As direct emissions statistics are not available for water supply networks, Table W 4.5 and Table W 4.6 provide estimates of greenhouse gas emissions from water supply and sewerage networks that include both end-use emissions and upstream emissions from the generation of purchased electricity. These estimates are not comparable with greenhouse gas emission estimates for other major forms of infrastructure presented in Parts T, E and C of the Yearbook, which present direct emissions only.

Table W 4.7 provides estimates of scope 1 greenhouse gas emissions from wastewater handling sourced from the National Greenhouse Gas Inventory.

References



References

AusRegistry 2013, *AusRegistry Quarterly report to auDA*, <http://www.auda.org.au/industry-information/registry/ausregistry-reports/>

Australasian Railway Association Inc (ARA) 2008, *Australian Rail Industry Report 2007*, Canberra

Australasian Railway Association Inc (ARA) 2013, *Australian Rail Industry Report 2012*, Canberra

Australian Bureau of Statistics (ABS) 2002, *Freight movements: Australia summary*, ABS cat. no. 9220.0, Canberra

Australian Bureau of Statistics (ABS) 2004, *Rail freight movements, Australia, Summary - Electronic Delivery*, ABS cat. no. 9220.0.55.001, Canberra

Australian Bureau of Statistics (ABS) 2005, *Year Book Australia, 2005*, ABS cat. no. 1301.0, Canberra

Australian Bureau of Statistics (ABS) 2006a, *Research Paper: Survey of Motor Vehicle Use - An investigation into coherence*, ABS cat. no. 9208.0.55.005, Canberra

Australian Bureau of Statistics (ABS) 2006b, *Water Account, Australia 2004–05*, ABS cat. no. 4610.0, Canberra

Australian Bureau of Statistics (ABS) 2007a, *2006 Census Basic Community Profile Series*, ABS website release, Canberra

Australian Bureau of Statistics (ABS) 2007b, *An Experimental Monetary Water Account for Australia, 2004–05*, ABS cat. no. 4610.0.55.005, Canberra

Australian Bureau of Statistics (ABS) 2008, *Australian and New Zealand Standard Industrial Classification (ANZSIC)*, ABS cat. no. 1292.0, Canberra

Australian Bureau of Statistics (ABS) 2009, *Information Paper: Experimental Estimates of Motor Vehicle Use, Australia*, ABS cat. no. 9222.0, Canberra

Australian Bureau of Statistics (ABS) 2010, *Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2011*, ABS cat. no. 1270.0.55.001, Canberra

Australian Bureau of Statistics (ABS) 2011a, *Average Retail Prices of Selected Items, Eight Capital Cities*, ABS cat. no. 6403.0.55.001, Canberra

Australian Bureau of Statistics (ABS) 2011b, *Business Use of Information Technology*, ABS cat. no. 8129.0, Canberra

Australian Bureau of Statistics (ABS) 2012a, *Australian Statistical Geography Standard (ASGS): Volume 4 - Significant Urban Areas, Urban Centres and Localities, Section of State, July 2011*, ABS cat. no. 1270.0.55.004, Canberra

Australian Bureau of Statistics (ABS) 2012b, *Census Basic Community Profile Series (2011)*, ABS website release, Canberra

Australian Bureau of Statistics (ABS) 2012c, *Employee Earnings and Hours, Australia*, ABS cat. no. 6306.0, Canberra

Australian Bureau of Statistics (ABS) 2013a, *Australian System of National Accounts*, ABS cat. no. 5204.0, Canberra

Australian Bureau of Statistics (ABS) 2013b, *Gross Value of Irrigated Agricultural Production*, ABS cat. no. 4610.0.55.008, Canberra

Australian Bureau of Statistics (ABS) 2013c, *Selected Characteristics of Australian Business*, ABS cat. no. 8167.0, Canberra

Australian Bureau of Statistics (ABS) 2013d, *Survey of Motor Vehicle Use, Australia*, ABS cat. no. 9208.0, Canberra

Australian Bureau of Statistics (ABS) 2014a, *Australian Industry*, ABS cat. no. 8155.0, Canberra

Australian Bureau of Statistics (ABS) 2014b, *Australian National Accounts: National Income, Expenditure and Product*, ABS cat. no. 5206.0, Canberra

Australian Bureau of Statistics (ABS) 2014c, *Balance of Payments and International Investment Position, Australia*, ABS cat. no. 5302.0, Canberra

Australian Bureau of Statistics (ABS) 2014d, *Consumer Price Index, Australia*, ABS cat. no. 6401.0, Canberra

Australian Bureau of Statistics (ABS) 2014e, *Engineering Construction Activity, Australia*, ABS cat. no. 8762.0, Canberra

Australian Bureau of Statistics (ABS) 2014f, *Government Finance Statistics, Australia, 2012–13*, ABS cat. no. 5512.0, Canberra

Australian Bureau of Statistics (ABS) 2014g, *International cargo statistics*, unpublished data, Canberra

Australian Bureau of Statistics (ABS) 2014h, *Internet Activity, Australia*, ABS cat. no. 8153.0, Canberra

Australian Bureau of Statistics (ABS) 2014i, *Labour Force, Australia*, ABS cat. no. 6202.0, Canberra

Australian Bureau of Statistics (ABS) 2014j, *Labour Force, Australia*, detailed, Quarterly, ABS cat. no. 6291.0.55.003, Canberra

Australian Bureau of Statistics (ABS) 2014k, *Motor Vehicle Census, Australia*, ABS cat. no. 9309.0, Canberra

Australian Bureau of Statistics (ABS) 2014l, *Producer Price Indexes, Australia*, ABS cat. no. 6427.0, Canberra

Australian Bureau of Statistics (ABS) 2014m, *Regional Population Growth, Australia*, ABS cat. no. 3218.0, Canberra

- Australian Bureau of Statistics (ABS) 2014n, *Sales of New Motor Vehicles, Australia*, ABS cat. no. 9314.0, Canberra
- Australian Bureau of Statistics (ABS) 2014o, *Taxation Revenue, Australia, 2012–13*, ABS cat. no. 5506.0, Canberra
- Australian Bureau of Statistics (ABS) 2014p, *Water Use on Australian Farms*, ABS cat. no. 4618.0, Canberra
- Australian Chamber of Shipping 1993, *The Ports of Australia*, thirteenth edition, Sydney
- Australian Communications and Media Authority (ACMA) 2011, *Developments in next generation applications and services*, Melbourne
- Australian Communications and Media Authority (ACMA) 2013, *Communications report 2012–13*, Melbourne
- Australian Energy Regulator (AER) 2013, *State of the Energy Market 2013*, Australian Competition and Consumer Commission, Canberra
- Australian Institute of Health and Welfare (AIHW): Henley G and Harrison JE 2009, *Serious injury due to land transport accidents, Australia 2006–07*, Injury research and statistics series no. 53. Cat. no. INJCAT 129, Canberra
- Australian Institute of Health and Welfare (AIHW) 2014, *Australian hospital statistics 2012–13*, Health services series no. 54. Cat. no. HSE 145, Canberra
- Australian Institute of Petroleum (AIP) 2014, *AIP Annual Retail Price Data – website release*, <http://www.aip.com.au/pricing/retail.htm>
- Australian Transport Safety Bureau (ATSB) 2004, *Railway accident Fatalities: Australia Compared With Other OECD Countries, 1980–1999*, Canberra
- Australian Transport Safety Bureau (ATSB) 2010, *Australian Rail Safety Occurrence Data: 1 January 2001 to 31 December 2009*, Canberra
- Australian Transport Safety Bureau (ATSB) 2012, *Australian Rail Safety Occurrence Data 1 January 2002 to 31 December 2011*, Canberra, <http://www.atsb.gov.au/publications/2012/rr-2012-001.aspx>
- Australian Transport Safety Bureau (ATSB) 2014a, *National Aviation Occurrence Database*, unpublished data
- Australian Transport Safety Bureau (ATSB) 2014b, *Maritime Occurrence Data*, unpublished data
- Brisbane City Council, *Annual reports*, various years
- Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2009, *Greenhouse Gas Emissions from Australian Transport: Projections to 2020 Working Paper 73*, Canberra
- Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2011, *Public road related expenditure and revenue in Australia*, Information Sheet 40, Canberra
- Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2012a, *Ailine 2008–09*, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2012b, *Domestic sea freight database - Survey of Australian port authorities, unpublished data*, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2012c, *TrainLine 1*, Statistical Report, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2013, *BITRE Road Construction and Maintenance Price Index and Sub-Indexes—2013 update*, Information Sheet 49, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014a, *Australian road freight estimates: 2014 update*, Information Sheet 62, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014b, *Australian Sea Freight 2012–13*, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014c, *Aviation statistics - website release*, Canberra http://www.bitre.gov.au/statistics/aviation/australian_air_distances.aspx

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014d, *Aviation statistics - website release*, Canberra http://www.bitre.gov.au/statistics/aviation/air_fares.aspx

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014e, *Aviation statistics - website release*, Canberra <http://www.bitre.gov.au/statistics/aviation/international.aspx>

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014f, *Aviation statistics - website release*, Canberra <http://www.bitre.gov.au/statistics/aviation/otphome.aspx>

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014g, *Aviation statistics - website release*, Canberra http://www.bitre.gov.au/publications/ongoing/domestic_airline_activity-annual_publications.aspx

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014h, *Aviation statistics - website release*, Canberra http://www.bitre.gov.au/publications/ongoing/airport_traffic_data.aspx

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014i, *BITRE Road Construction and Maintenance Price Index—2014 update*, Information Sheet 64, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014j, *Freightline 1*, Statistical Report, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014k, *Long-term trends in urban public transport*, Information Sheet 60, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014l, *Road Deaths Australia*, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014m, *TrainLine 2*, Statistical Report, Canberra

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014n, *Urban public transport: updated trends*, Information Sheet 59, Canberra

- Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2014o, *Waterline*, issue 54, Canberra
- Bureau of Meteorology (BOM) 2014a, *Annual Australian Climate Statement*, BOM website release, <http://www.bom.gov.au/climate/current/annual/aus/>
- Bureau of Meteorology (BOM) 2014b, *Water Storage* BOM website release, <http://water.bom.gov.au/waterstorage/awris/?ref=fttr>
- Bureau of Transport and Communication Economics (BTCE) 1996, *Road construction and maintenance price index*, Information Paper 41, Canberra
- Bureau of Transport and Regional Economics (BTRE) 2002, *Greenhouse gas emissions from transport: Australian trends to 2020*, Report 107, Canberra
- Bureau of Transport and Regional Economics (BTRE) 2006a, *Freight measurement and modelling in Australia*, Report 112, Canberra
- Bureau of Transport and Regional Economics (BTRE) 2006b, *Greenhouse gas emissions from Australian transport: base case projections to 2020*, Working Paper 73, Canberra
- Bureau of Transport and Regional Economics (BTRE) 2006c, *Passenger movements between Australian cities 1970–71 to 2030–31*, Information Sheet 26, Canberra
- Bureau of Transport and Regional Economics (BTRE) 2007, *Estimating urban traffic and congestion cost trends for Australian cities*, Working Paper 71, Canberra
- Bureau of Transport Economics (BTE) 2000, *Public road-related expenditure and revenue in Australia*, Information Sheets 13 and 17, Canberra
- Bureau of Resources and Energy Economics (BREE) 2011, *Australian energy statistics - Energy update*, 2011, Canberra
- Bureau of Resources and Energy Economics (BREE) 2013a, *Energy in Australia*, Canberra
- Bureau of Resources and Energy Economics (BREE) 2013b, *Resources and Energy Statistics*, Vol. 3, no. 1, Canberra
- Bureau of Resources and Energy Economics (BREE) 2014a, *Australian Energy Resource Assessment*, Canberra
- Bureau of Resources and Energy Economics (BREE) 2014b, *Australian Energy Statistics*, Canberra
- Bureau of Resources and Energy Economics (BREE) 2014c, *Australian Petroleum Statistics*, Canberra
- Bureau of Resources and Energy Economics (BREE) 2014d, *Resources and Energy Quarterly*, Canberra
- Civil Aviation Safety Authority (CASA) 2014, *Civil aircraft register* - website release, http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_93247
- Connecteast, *Annual reports*, various years
- Cross City Motorway, *Annual reports*, various years

Energy Supply Association of Australia (ESAA) 2005, *Historical Statistics - Australian electricity sector statistics from 1955 to 1994*, data disk

Energy Supply Association of Australia (ESAA) 2014, *Electricity Gas Australia*, ESAA, Melbourne

Environment, Department of (Environment) 2014, *National Greenhouse Gas Inventory*, Australian Greenhouse Emissions Information System, Australian Greenhouse Emissions Information System (AGEIS) website release, Canberra

Geoscience Australia (GA) 2010, *Area of Australia - States and Territories*, GA website release, <http://www.ga.gov.au/education/geoscience-basics/dimensions/area-of-australia-states-and-territories.html>

Geoscience Australia (GA) 2012, *Oil and Gas Resources of Australia 2010*, Geoscience Australia, Canberra

Geoscience Australia (GA) 2013, *Australia's Identified Mineral Resources 2013*, Geoscience Australia, Canberra

Geoscience Australia (GA) 2014, *Statistical Enquiry Service*, unpublished data

Infrastructure and Transport, Department of (Infrastructure) 2012, *Casualty Crash Database*, unpublished data

Lloyd's Marine Information Unit (LMIU) 2014, *Lloyd's ship Movements*, unpublished data

National Marine Safety Committee (NMSC) 2010, *Incident data*, http://www.nmsc.gov.au/research_data/index.php?MID=84&COMID=1&CID=80

National Water Commission (NWC) 2012a, *National Performance Framework 2010–11 Urban Water Performance Report Indicators and Definitions Handbook*, NWC, Canberra

National Water Commission (NWC) 2012b, *National Performance Framework rural water performance reporting indicators and definitions 2010–11*, NWC, Canberra

National Water Commission (NWC) 2013, *Australian Water Markets Report 2012–13*, NWC, Canberra

National Water Commission (NWC) 2014a, *National Performance Report 2012–13: rural water service providers*, National Water Commission, Canberra

National Water Commission (NWC) 2014b, *National Performance Report 2012–13: urban water utilities*, National Water Commission, Canberra

Office of Road Safety, 1984, *Road traffic accident data and rates: Australia, States and Territories, 1925–1981*, Canberra

Office of the National Rail Safety Regulator (ONRSR) 2014, *Statistical Enquiry Service*, unpublished data

Office of the Tasmanian Economic Regulator (OTER) 2009, *Tasmanian Water and Sewerage State of the Industry Report 2007–08*, Hobart

Organisation for Economic Co-operation and Development (OECD) 2010, *OECD Broadband Portal*, OECD website service, Paris

Queensland Motorways, *Annual reports*, various years

Reserve Bank of Australia 2014, *Economic and Financial Statistics*, Historical Data

River City Motorways, *Annual reports*, various years

Roads and Traffic Authority (RTA), *Annual reports*, various years

Tourism Research Australia (TRA) 2014, *Statistical Enquiry Service*, unpublished data

Transurban, *Annual reports*, various years

whereis.com



www.bitre.gov.au

ISBN 978-1-925216-21-9