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**Department of Infrastructure, Transport,
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About this booklet

Australian Transport Statistics provides a short summary of a diverse range of transport statistics. Topics include employment, GDP, passenger and freight movements, trade, funding, motor vehicles, fatalities and estimated greenhouse gas emissions attributed to the transport industry. Information is provided for road, rail, maritime and aviation sectors. Data is collected from various sources both within the Bureau of Infrastructure, Transport and Regional Economics (BITRE) and external organisations.

About BITRE

BITRE, operating within the Department of Infrastructure, Transport, Regional Development and Local Government, contributes to the development of Government infrastructure, transport and regional development policy by undertaking applied economic and social research on current and emerging issues. As much of its work is published, BITRE also improves public understanding of the factors influencing infrastructure, transport and regional development in Australia.

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Figure 1 AusLink national road network and international airports



Figure 2 Major railways and sea ports



Source: Australasian Railway Association, 2003 ARA Yearbook.

Some highlights

- Transport specific businesses contributed 4.63 per cent of total GDP in 2006–07 (Table 1). This amounted to \$46.2 billion in 2005–06 constant prices.
- The transport sector provided 492 875 jobs or 4.7 per cent of total employment in August 2007 (Table 2).
- Australia's three main trading partners in terms of import value for goods in 2006–07 were the EU, USA and China, while the top three export destinations in terms of goods value were Japan, China and the EU (Table 4). There was a total of 734.4 million tonnes of international freight movements through Australian ports and airports which amounted to \$362.1 billion in 2006–07 (Table 5).
- There were 14.4 million motor vehicles registered in Australia at 31 March 2006 (Table 8). Government funding of road-related expenditure reached approximately \$9 billion in 2004–05 (Table 10). Approximately \$15.4 billion (in 2005–06 constant prices) was invested in transport infrastructure engineering construction work in 2006–07 (Table 3).
- Rail transport accounted for 643.4 million passenger journeys and 641.2 million tonnes of freight carried in 2005–06 (Table 11).
- International air passengers reached a record 22.1 million while domestic and regional air passengers totalled 45.3 million in 2006–07 (Table 12).
- There was a total of 1727 transport-related fatalities in 2007, a decrease of 8.6 per cent compared with 1997 (Table 19).
- Road transport accounted for 84.9 per cent of Australia's domestic transport greenhouse gas emissions in 2007 (Table 21).

**Table 1 Transport and storage GDP, 2002–03 to 2006–07,
chain volume measures, transport and storage gross
value-added at basic prices^a**

Indicator	2002–03	2003–04	2004–05	2005–06	2006–07
	(\$ millions)				
Transport and storage gross value added	38 766	40 288	42 480	43 632	46 172
Road	12 805	13 692	14 518	15 239	16 880
Air and space	4 649	4 929	5 436	5 738	6 229
Rail, pipeline and other transport	5 695	5 883	6 066	6 206	6 047
Transport services and storage ^b	15 683	15 829	16 488	16 449	17 015
Transport and storage gross value added per capita (\$ thousands)	1.95	2.00	2.08	2.11	2.20
Transport and storage as a percentage of GDP	4.41	4.41	4.52	4.51	4.63

a. The reference year for chain volume measures is 2005–06.

b. Transport services and storage includes water transport.

Source: ABS, *Australian National Accounts: National Income, Expenditure and Product*
(ABS cat. no. 5206.0, Table 33).

Table 2 Employment in transport and storage, 2003 to 2007

Mode	2003	2004	2005	2006	2007
<i>August reference month (thousand employees)</i>					
Road	219.4	222.0	216.5	230.0	232.4
Rail	40.3	36.6	37.6	37.4	40.7
Water	11.0	17.5	10.9	15.3	18.0
Air and space	49.9	41.8	51.9	47.7	48.2
Other transport	0.8	0.9	0.3	1.0	0.4
Services to transport	71.4	73.3	77.5	80.2	87.9
Storage	27.4	36.6	41.3	43.1	47.9
Transport and storage nfd ^a	1.0	18.5	14.9	10.1	17.3
Total employment—Transport and storage	421.1	447.2	450.9	464.9	492.9
Total employment—all industries	9 412.3	9 575.6	9 963.5	10 168.0	10 435.8

a. Not further defined. Insufficient detail collected from survey respondents to allocate them to a specific industry code.

Source: ABS, *Labour Force, Australia, Detailed, Quarterly* (ABS cat. no. 6291.0.55.003, Table 6).

Table 3 Real value of transport infrastructure engineering construction work done

Financial Year	Roads and bridges	Railways	Ports and harbours	Total
	(\$ millions)			
2000–01	6 818	741	242	7 801
2001–02	6 594	1 039	383	8 016
2002–03	7 645	1 483	344	9 472
2003–04	8 782	1 677	505	10 964
2004–05	10 382	2 355	976	13 713
2005–06	11 162	2 231	1 013	14 405
2006–07	11 858	2 488	1 096	15 442

Note: These values have been adjusted to take into account price changes using the private business investment, new engineering construction chain price index (2005–06 = 100).

Sources: ABS, *Engineering Construction Activity* (ABS cat. no. 8762.0).

Table 4 Australian international goods trade by country, 2006–07

Country of origin	Imports (\$ millions)	Imports (thousand tonnes)	Country of destination	Exports (\$ millions)	Exports (thousand tonnes)
European Union ^a	40 492	4 141	Japan	32 866	227 398
United States of America	28 878	3 435	China ^b	26 167	169 937
China ^b	28 696	7 071	European Union ^a	20 747	45 028
Japan	17 395	4 978	Republic of Korea	13 101	71 953
Singapore	10 538	8 738	United States of America	11 511	4 317
Thailand	7 225	1 840	New Zealand	10 170	5 418
Malaysia	6 592	4 834	India	10 111	24 417
Republic of Korea	6 590	2 634	Taiwan	6 218	40 462
New Zealand	5 740	2 558	Singapore	5 320	4 488
Indonesia	4 649	5 377	Indonesia	4 383	7 941
Rest of World	32 394	32 335	Rest of World	32 323	55 108
Total	189 190	77 941	Total	172 919	656 467

Note: The data above refers to trade via air and sea.

a. Includes Bulgaria and Romania which became EU members in January 2007.

b. Includes Hong Kong and Macau.

Source: ABS, *International Cargo Statistics*.

Table 5 Total international freight, 2006–07

	Air	Sea	Total
Total trade (\$ <i>billions</i>)	86.6	275.4	362.1
Loaded (\$ <i>billions</i>)	30.5	142.4	172.9
Discharged (\$ <i>billions</i>)	56.1	133.0	189.2
Total trade (<i>thousand tonnes</i>)	692	733 716	734 409
Loaded (<i>thousand tonnes</i>)	289	656 178	656 467
Discharged (<i>thousand tonnes</i>)	403	77 538	77 941
Average distance (<i>kilometres</i>)	9 109	8 342	8 343

Source: ABS, *International Cargo Statistics*.

Table 6 Total international passenger numbers, 2006–07

	Air	Sea^a	Total
Passengers carried (<i>thousands</i>)	22 138	283	22 421
Incoming passengers (<i>thousands</i>)	11 188	151	11 339
Outgoing passengers (<i>thousands</i>)	10 950	132	11 082

a. Persons clearing Customs (inbound and outbound). Persons may be included at more than one port with cruise ships.

Sources: BITRE, aviation statistics database; Australian Customs Service.

Table 7 Total domestic freight and passenger numbers, 2005–06

	Road	Rail	Air ^a	Sea ^b	Total ^c
Tonnes carried (<i>thousands</i>)	1 844 000	641 220	na	55 249	2 540 469
Tonne-kilometres (<i>millions</i>)	168 320	189 040	na	122 040	479 400
Average distance (<i>kilometres</i>)	91	295	na	2 209	na
Passengers (<i>thousands</i>)	na	643 360	41 824	21 553	na

na: not available.

a. Domestic air freight not available. Passenger total is for scheduled activity only (domestic and regional).

b. Includes urban public transport ferry services.

c. Total does not include air freight.

Source: ABS, *Survey of Motor Vehicle Use 2006* (ABS cat. no. 9208.0); BITRE, *Freight Measurement and Modelling in Australia* (Report 112), updated; BITRE, aviation statistics database; BITRE, coastal freight database; Australasian Railway Association, *Industry Report 2006*; and Applebaum Consulting Group, *Australian Transport Facts 2007*.

Table 8 Road transport summary, 2005–06

	Cars	Motor-cycles	LCVs	Articulated trucks	Rigid and other trucks	Buses	Total
Vehicles ^a (<i>thousands</i>)	11 189	463	2 114	72	445	75	14 359
Vehicle kilometres travelled (<i>millions</i>)	174 195	1 685	35 097	6 556	7 233	1 850	226 616
Freight carried ^b (<i>million tonnes</i>)	na	na	151	812	881	na	1 844
Freight carried ^b (<i>million tonne-kilometres</i>)	na	na	7 878	128 759	31 682	na	168 320
New vehicles ^c (<i>thousands</i>)	599	na	na	na	372	na	971

na: not available.

a. Vehicles registered in Australia at 31 March 2006.

b. Data for year ending 31 October 2006.

c. For new vehicles, all non-passenger vehicles have been grouped as rigid and other trucks.

Sources: ABS, *Motor Vehicle Census* (ABS cat. no. 9309.0); ABS, *Sales of New Motor Vehicles* (ABS cat. no. 9314.0); ABS, *Survey of Motor Vehicle Use 2006* (ABS cat. no. 9208.0); BITRE, *Estimating Urban Traffic and Congestion Cost Trends for Australian Cities* (Working Paper 71), updated; and BITRE, *Freight Measurement and Modelling in Australia* (Report 112), updated.

Table 9 Total road length, 2007

State	NSW ^a	VIC ^b	QLD	SA	WA ^c	TAS ^d	NT ^e	ACT	Australia
<i>(kilometres)</i>									
Sealed	94 740	76 166	65 231	29 268	52 468	10 840	6 580	2 685	338 013
Other	89 354	72 846	117 050	67 707	99 794	14 400	15 607	338	477 947
Total	184 094	149 012	182 281	96 975	152 262	25 240	22 187	3 023	815 959

a. Excludes Lord Howe Island, forestry and crown roads.

b. Excludes roads coming under the responsibility of the Victorian Department of Conservation and Natural Resources.

c. Excludes approximately 25 300 km of forestry roads.

d. Includes estimate for forestry roads.

e. Excludes roads managed by local government bodies.

Source: BITRE survey of state road authorities.

**Table 10 Government funding of road-related expenditure, 2004–05
constant prices**

Source	2000–01	2001–02	2002–03	2003–04	2004–05
	(\$ millions)				
Commonwealth	1 748	2 136	1 914	1 935	2 101
State	4 204	3 411	3 469	3 737	3 625
Local	3 731	3 713	3 902	3 734	3 291
Total	9 684	9 260	9 285	9 405	9 017

Notes: Figures include road construction, maintenance and some administration and planning costs associated with those activities. Local government figures include funds donated from non-public sector sources. Components may not add to total due to rounding.

Source: BITRE, *Public Road-related Expenditure and Revenue in Australia*, Information Sheet 27, available at <http://www.bitre.gov.au>.

Table 11 Rail transport summary

	2002–03	2003–04	2004–05	2005–06
Passenger journeys (<i>millions</i>)	604.9	608.4	616.2	643.4
Passenger kilometres (<i>billions</i>)	11.2	11.5	11.3	11.9
Freight (<i>million tonnes</i>)	576.0	593.8	635.0	641.2
Freight (<i>billion tonne-kilometres</i>)	159.8	168.1	183.0	189.0
Employees ^a	40 313	36 639	37 573	37 405
Annual turnover (\$ <i>billions</i>)	8.71	na	11.19	na

na: not available.

a. August survey month following the end of the financial year.

Sources: Australasian Railway Association, *Industry Report 2006* (<http://www.ara.net.au/publications.htm>) and ABS, *Labour Force, Australia, Detailed*, Quarterly (ABS cat. no. 6291.0.55.003, Table 6).

Table 12 Air transport summary

Activity	International flights		Domestic flights		Regional flights	
	1996–97	2006–07	1996–97	2006–07	1996–97	2006–07
Aircraft movements	103 898	132 644	493 470	581 782	675 490	469 262
Hours flown	na	na	451 679	563 111	284 414	240 671
Kilometres flown (<i>thousands</i>)	na	na	271 347	342 371	93 923	88 893
Revenue passenger kilometres (<i>millions</i>)	na	na	26 313	48 857	1 499	2 387
Revenue passengers (<i>thousands</i>)	13 718	22 138	23 463	39 805	4 440	5 513
Passenger load factors (<i>per cent</i>)	67.4	75.6	73.4	80.1	59.6	66.8
Freight (<i>tonnes</i>)	614 945	754 456	na	na	na	na

na: not available.

Notes: Data is for scheduled services only. Domestic RPT services (Qantas, Jetstar and Virgin Blue) are primarily between capital cities and major tourist centres. Regional RPT services are primarily to regional centres.

Sources: BITRE, aviation statistics, available at <http://www.bitre.gov.au>.

Table 13 Short term international air travellers, 2006–07

Australians departing to		Visitors arriving from	
New Zealand	878 576	New Zealand	1 113 216
United States of America	450 600	United Kingdom	730 064
United Kingdom	414 961	Japan	609 302
Thailand	331 522	United States of America	446 439
China	268 423	China	338 371
Indonesia	230 950	South Korea	270 728
Singapore	207 790	Singapore	263 423
Hong Kong	199 779	Malaysia	157 024
Fiji	193 592	Hong Kong	153 033
Malaysia	172 364	Germany	147 422
Other	1 770 760	Other	1 391 438

Note: The country represents the ultimate destination and origin rather than the next or previous country, e.g. a short stopover en route is excluded.

Source: ABS, *Overseas Arrivals and Departures* (ABS cat. no. 3401.0), unpublished data.

Table 14 Aircraft registered in Australia as at 8 January 2008

Engines	Aeroplane				Helicopter		Balloon	Glider		Total
	1	2	3	4	1	2	0	0	1	
Reciprocating	7 695	1 241	5	2	933	–	–	–	162	10 038
Rotary	2	–	–	–	–	–	–	–	1	3
Turbofan	7	308	7	50	–	–	–	–	–	372
Turbojet	35	17	–	–	–	–	–	–	–	52
Turboprop	275	422	–	–	–	–	–	–	–	697
Turboshaft	–	–	–	–	426	128	–	–	–	554
Nil engine	–	–	–	–	–	–	336	926	–	1 262
Total aircraft	8 014	1 988	12	52	1 359	128	336	926	163	12 978

Notes: Includes amateur-built aircraft. Total aircraft registered: 12 978.

Source: Civil Aviation Safety Authority, *Aircraft Register*, <http://www.casa.gov.au/casadata/register/datafiles.asp>.

Table 15 Maritime transport summary

	International		Domestic	
	1996–97	2006–07	1996–97	2006–07
Total trade (\$ <i>billions</i>)	120	275	na	na
Loaded (\$ <i>billions</i>)	63	142	na	na
Discharged (\$ <i>billions</i>)	57	133	na	na
Total trade (<i>million tonnes</i>)	454	734	99	117
Loaded (<i>million tonnes</i>)	404	656	49	56
Discharged (<i>million tonnes</i>)	50	78	50	60
Average kilometres shipped	9 347	8 342	2 291	2 239
Passengers carried (<i>thousands</i>)	89 ^a	283 ^a	17 468 ^{b,c}	21 553 ^{b,d}

na: not available.

a. Persons clearing customs (inbound and outbound) at ports.

b. Includes urban public transport ferry services.

c. Data for 1997–98.

d. Data for 2005–06.

Sources: ABS, International cargo statistics; Australian Customs Service; Applebaum Consulting Group, *Australian Transport Facts 2007*; BITRE, coastal freight database.

Table 16 Australian international shipping activity^a

Year	No. ships entering Australia from overseas^b	No. voyages into Australia from overseas^b	No. ship calls at Australian ports^c
1997–98	3 203	9 548	21 241
1998–99	3 161	9 805	21 269
1999–00	3 188	10 000	22 058
2000–01	3 169	9 761	21 879
2001–02	3 146	8 895	21 488
2002–03	3 150	9 022	22 910
2003–04	3 375	9 327	23 634
2004–05	3 540	10 035	25 544
2005–06	3 528	10 174	25 632
2006–07	3 725	10 411	26 327

a. Standard visits, as defined by Lloyd's Maritime Information. A ship that sails to Australia 3 times and makes a total of 15 port calls in Australia in a year, counts as 1 ship, 3 voyages and 15 ship calls.

b. Excludes ships that do not leave the Australian coast.

c. Includes ships coasting around Australia.

Source: Lloyd's Maritime Intelligence Unit, shipping information database.

Table 17 Top ten Australian ports, 2006–07

International only				Domestic & international	
Port	Weight (million tonnes)	Port	Value (\$ billions)	Port	Weight (million tonnes)
Dampier	126.1	Melbourne	61.0	Dampier	128.6
Port Hedland	107.4	Sydney	54.2	Port Hedland	112.0
Hay Point	86.4	Brisbane	30.7	Hay Point	86.4
Newcastle	83.6	Fremantle/Perth	24.5	Newcastle	83.9
Gladstone	56.8	Dampier	16.8	Gladstone	60.6
Port Walcott	54.0	Hay Point	10.4	Port Walcott	54.0
Brisbane	21.3	Adelaide	8.3	Brisbane	23.5
Melbourne	20.7	Gladstone	7.3	Melbourne	23.3
Sydney	20.4	Port Hedland	7.3	Sydney	21.7
Fremantle/Perth	19.0	Newcastle	7.2	Fremantle/Perth	21.3
Other	138.0	Other	47.8	Other	174.9

Sources: ABS, International cargo statistics; BITRE, coastal freight database.

Table 18 Container cargo exchanged at Australian capital city ports in TEUs

Port	2002–03	2003–04	2004–05 (thousands)	2005–06	2006–07
Melbourne	1 594	1 718	1 910	1 930	2 093
Sydney	1 161	1 270	1 376	1 445	1 620
Brisbane	570	639	726	766	875
Fremantle	431	457	467	455	505
Adelaide	148	169	171	189	219
All five ports	3 904	4 254	4 650	4 786	5 313

Note: TEUs correspond to twenty foot equivalent units.

Source: BITRE, *Waterline*, various issues (Table 11), available at <http://www.bitre.gov.au>.

Table 19 Australian transport fatality statistics, 1996–2007

Year	Road	Rail	Marine	Aviation	Total
1996	1 970	30	60	43	2 103
1997	1 767	43	46	26	1 886
1998	1 755	43	46	46	1 890
1999	1 764	43	51	40	1 898
2000	1 817	38	42	37	1 934
2001	1 737	56	56	41	1 890
2002	1 715	59	38	24	1 836
2003	1 621	48	40	35	1 744
2004	1 583	47	47	21	1 698
2005	1 627	38	39	36	1 740
2006	1 598	40	48	33	1 719
2007	1 616	37	52	22	1 727

Sources: ATSB (Road: http://www.atsb.gov.au/road/road_fatality_statistics/index.aspx,
Rail: <http://www.atsb.gov.au/rail/statistics.aspx>,
Aviation: <http://www.atsb.gov.au/aviation/statistics.aspx>);
National Maritime Safety Committee; and Australian Maritime Safety Authority.

Table 20 OECD road fatalities per 100 000 population, 2005

Country	Fatalities	Country	Fatalities	Country	Fatalities
Netherlands	4.6	Australia	8.0	Hungary	12.7
Norway	4.9	France	8.8	Slovenia	12.9
Sweden	4.9	Canada	9.1	South Korea	13.2
Switzerland	5.5	Austria	9.3	Poland	14.3
United Kingdom	5.5	Ireland	9.5	USA	14.7
Denmark	6.1	New Zealand	9.9	Greece	15.0
Japan	6.2	Spain	10.2	Italy	na
Iceland	6.3	Belgium	10.4	Luxembourg	na
Germany	6.5	Portugal	11.8	Slovakia	na
Finland	7.2	Czech Republic	12.6	Turkey	na
				OECD median	9.5

na: not available.

Source: ATSB, *International Road Safety Comparisons—The 2005 Report*,
http://www.atsb.gov.au/publications/2007/pdf/Int_comp_05.pdf

Table 21 Estimated greenhouse gas emissions—CO₂ equivalent—domestic transport, 2007

Gas source	CO ₂	CH ₄	N ₂ O	Total	Per cent
<i>(gigagrams or kilotonnes)</i>					
Road	81 742	473	1 871	84 087	84.9
Passenger cars	47 847	374	1 472	49 693	
LCVs	12 880	80	256	13 216	
Articulated trucks	11 566	4	54	11 623	
Rigid (and other) trucks	7 620	6	71	7 697	
Buses	1 540	5	16	1 561	
Motorcycles	289	5	2	296	
Rail	4 530	50	22	4 602	4.6
Civil aviation	7 818	6	60	7 884	8.0
Domestic navigation	2 320	85	18	2 423	2.4
All domestic transport	96 409	614	1 972	98 995	100.0

Notes: Emissions of direct greenhouse gases: carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) only. Inclusion of indirect effects, such as from ozone precursors like carbon monoxide (CO), would increase the total by around 15 per cent. Values include emissions due to fuel refining and power generation required for transport energy use, and are thus higher than 'Transport' values given in the *National Greenhouse Gas Inventory*, which (for accounting purposes) does not allocate energy transformation emissions to the relevant energy end uses.

Transport accounted for 14.4 per cent of Australia's national greenhouse gas emissions in 2005 according to the Australian Greenhouse Office's *National Greenhouse Gas Inventory 2005* (latest available).

Source: BITRE, *Greenhouse Gas Emissions from Australian Transport: Base Case Projections to 2020*, updated.

Abbreviations used in tables

ABS	Australian Bureau of Statistics	QLD	Queensland
ACT	Australian Capital Territory	RPT	Regular Public Transport
ATSB	Australian Transport Safety Bureau	SA	South Australia
GDP	Gross Domestic Product	TAS	Tasmania
LCVs	light commercial vehicles	TEU	20 foot Equivalent Units
NSW	New South Wales	VIC	Victoria
NT	Northern Territory	WA	Western Australia
OECD	Organisation for Economic Cooperation and Development	–	nil, negligible or non-applicable

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