



**Australian Government**

**Department of Transport and Regional Services**

Bureau of Transport and Regional Economics

# Australian Transport Statistics

June 2005



# Auslink National Road Network and International Airports



# Major Railways and Sea Ports



# *About the BTRE*

## **The Bureau of Transport and Regional Economics (BTRE)**

(<http://www.btre.gov.au>)

The BTRE, operating within the Department of Transport and Regional Services, contributes to the development of government policy by undertaking research and analysis of transport and regional services issues.

As much of its work is published, the BTRE also improves public understanding of the factors influencing transport and regional services in Australia.

# At a glance...

- Transport specific businesses contributed 4.9% of total GDP in 2003–2004 (Table 1; excludes transport activity performed by other businesses). This amounted to \$38.7 billion in 2002–03 constant prices.
- The transport sector provided 427,000 jobs, or 4.5% of total employment in 2003–2004 (Table 2).
- About 1 553 million tonnes of freight are transported around Australia by road each year (Table 3).
- Australians drive an estimated 201 billion kilometres each year (Table 8).
- Australia has the 10th lowest road fatalities in the OECD at 8.7 fatalities per 100,000 population in 2002. Sweden and the UK have the lowest at 6.0 fatalities per 100,000 population (Table 19).
- The number of road fatalities decreased by 2.3% in 2004 and aviation fatalities also decreased by 38% (Table 20).
- Transport accounted for 14.4%, or 79 Mt, of national greenhouse gas emissions in 2002. (Table 21).

## Table 1 Transport & Storage GDP — 1999/2000–2003/04

*(\$ million, 2002–03 constant prices)*

Indicator	99–00	00–01	01–02	02–03	03–04
T&S GDP <sup>(1)</sup>	32 230	33 889	35 269	37 017	38 731
-Road	10 349	10 823	11 600	12 423	13 368
-Rail, pipelines and other transport	3 909	3 963	4 221	4 489	4 655
-Air	5 225	5 662	5 352	5 549	6 013
-Services and storage <sup>(2)</sup>	12 810	13 507	14 121	14 561	14 692
T&S GDP per capita	1 669	1 732	1 765	1 821	1 892
T&S % of national GDP	4.8%	4.8%	4.9%	4.9%	4.9%

Notes: 1. T&S GDP relates to transport-specific businesses, excluding other transport activity performed by other businesses, and the value of non-commercial transport activities.

2. Services and Storage includes water transport.

Sources: ABS, Australian national accounts, National income and expenditure (5206.14). Time series data (quarterly) 1959–2004

**Table 2 Employment in Transport and Storage  
— 2000–2004**

*('000 employees at 31 August)*

Mode	2000	2001	2002	2003	2004
Road	210	219	210	221	223
Rail	38	36	35	41	36
Air & space	58	55	47	51	55
Water (sea)	12	14	11	12	14
Other transport	1	1	0	1	1
Services to transport	68	71	69	72	71
Storage	31	28	29	28	27
Total employment—T&S	419	423	401	425	427
Total employment—all industries	9 048	9 124	9 310	9 472	9 456

*Note: Transport-specific businesses, excluding other transport activity. Data collected from April 2001 onwards is not strictly comparable. Components may not sum to totals due to rounding.*

*Source: ABS, Labour force employed by industry, Australia, August 2004 ABS*

**Table 3 Total domestic freight & passenger task  
— 2002–2003**

	Road	Rail	Air <sup>a</sup>	Sea <sup>b</sup>	Total <sup>c</sup>
Tonnes carried ('000)	1 553 000	544 600	na	52 825	2 150 425
Tkm (million)	152 777	158 100	na	114 800	425 677
Av. distance (km)	98	na	na	2 174	na
Passengers ('000)	na	507 705	28 551	18 638	na

a. Domestic air freight not available.

b. Includes urban public transport ferry services.

c. Total does not include air freight.

Note: Most recent available data at publication for complete domestic series. Domestic data usually is available about one year after international data. Similar data lags also effect Tables 8, 9, 11, 15, 17 and 19.

Sources: ABS, Survey of motor vehicle use, Australia, 2003 (9208.0); BTRE, Aviation statistics database, unpublished; BTRE, Coastal freight database, unpublished, Australian Railway Association, ATSB.



## Table 4 Total International freight task—2003–2004

	Air	Sea	Total <sup>a</sup>
Total trade (\$ billion)	65.5	182.8	248.5
Loaded (\$ billion)	24.1	89.3	113.5
Discharged (\$ billion)	41.4	93.5	135.0
Total trade ('000s tonnes)	627	622 478	623 113
Loaded ('000s tonnes)	280	558 296	558 581
Discharged ('000s tonnes)	347	64 182	64 531
Total trade task (million tkm)	5 408	5 648 305	5 653 782
Loaded (million tkm)	1 910	5 036 031	5 037 983
Discharged (million tkm)	3 498	612 273	615 799
Av. distance (km)	8 631	9 074	9 073

a. Includes \$200m international cargo moved by postal services, which may be shipped by air or sea.

Source: ABS, International Cargo Statistics, unpublished.

**Table 5 Total International Passenger task  
— 2003–2004**

	Air	Sea <sup>a</sup>	Total
Passengers carried ('000)	18 131	188	18 319
Incoming passengers ('000s)	9 059	95	9 154
Outgoing passengers ('000s)	9 072	93	9 165

a. *Persons clearing customs (inwards and outwards). Persons may be included at more than one port with cruise ships.*

Sources: *BTRE, Aviation statistics database (AVSTATS), unpublished; Australian customs, Custom figures, Issue 35, Jun 2004, Section 2.4.*

**Table 6 Australian international trade by region  
— 2003–2004**

<b>Region</b>	<b>Imports (\$million)</b>	<b>Exports (\$million)</b>	<b>Imports (million tonnes)</b>	<b>Exports (million tonnes)</b>
Africa	1 423	2 356	0.934	5.974
Asia	62 078	58 208	38.561	431.987
Europe	34 706	15 324	4.259	57.591
India	1 303	5 787	0.554	19.371
Latin & South America	1 268	1 037	1.243	9.207
Middle East	2 465	5 956	6.477	13.387
North America	23 460	13 449	6.535	12.128
Pacific	6 982	10 628	5.706	7.304
Other	1 260	0 393	0.226	1.483
Confidential items	0 025	0 340	0.035	0.148
<b>Total</b>	<b>134 971</b>	<b>113 478</b>	<b>64.531</b>	<b>558.581</b>

Source: ABS, International cargo statistics, unpublished

**Table 7 Funding in new fixed assets in transport, 2002–2003 (\$m)**

Govt	Road	Rail	Air	Water	Pipes	Other	Service <sup>a</sup>	Total
Federal	1 028 <sup>b</sup>	0	6	0	0	43	-	1 077
State	1 131	1 866	269	279	3	238	-	3 786
Local	1 907	0	3	0	0	22	-	1 932
Total Govt	4 066	1 866	278	279	3	303	-	6 795
GBE	138	1 667	-	-	-	-	314	2 119
Private	1 325	699	3 909	65	0	50	810	6 858
Total	5 529	4 232	4 187	344	3	353	1 124	15 772

a. *Service includes: parking, terminals, ports, air ports, stevedores, travel agents, custom brokers, and freight brokers and forwarders.*

b. *Australian Government road expenditure of 1 028 equals sum of grants used on capital works and should be regarded as a minimum figure.*

Notes: 1. *Expenditure for new fixed assets & imported second hand assets. Excludes repair & maintenance, operating costs & expenditure on domestic second hand assets. Based on Treasury records.*

2. *Includes buildings, construction works, equipment, vehicles, computers & land.*

Source: *Derived from unpublished ABS and DOTARS data.*

Table 8 Motor Vehicle Statistics<sup>a</sup> —2002–2003

	Cars	Motor cycles	Light com'l	Freight trucks	Other trucks	Buses	Total
Vehicles ('000)	10 415	378	1 893	409	18	60	13 174
Vehicle-km (mil)	151 743	1 376	32 671	13 609	203	1 893	201 497
T. of freight carried (mil)	-	-	121	1 432	-	-	1 553
Tkm (mil)	-	-	6 710	146 067	-	-	152 777
New vehicles <sup>b</sup>	560 203	-	-	-	300 343	-	860 546

a. Average number of vehicles registered over 12 months to 31 October 2003.

b. For year ending 30 June 2003, Cars – Passenger vehicles, Other trucks – Other vehicles

Notes: Light com'l refers to light commercial vehicles. Tonnes and tonne-kilometres apply only to freight carrying vehicles. Components may not sum to totals due to rounding.

Sources: ABS, Survey of Motor Vehicle Use, Australia, 2003, (9208.0);  
ABS, Sale of new motor vehicles, (9314.0).

**Table 9 Road open for general use at 30 June 2003  
(‘000 km)**

State	NSW <sup>(1)</sup>	Vic <sup>(2)</sup>	Qld	SA	WA <sup>(3)</sup>	Tas <sup>(4)</sup>	NT <sup>(5)</sup>	ACT	Aust.
Sealed	90.9	75.6	68.5	28.2	50.1	10.5	6.5	2.6	332.9
Other	91.2	80.4	109.8	68.4	98.2	13.8	15.5	0.1	477.4
Total	182.1	156.0	178.3	96.6	148.3	24.3	22.0	2.7	810.2

- Notes:
1. Excludes Lord Howe Island, forestry and crown roads.
  2. Includes VicRoad declared roads (June 2003) and unclassified roads (June 2002). Excludes 40 000 km of service roads administered by other authorities.
  3. Excludes approximately 27 100 km of forestry roads.
  4. Includes estimate for forestry roads.
  5. Excludes non NT government managed roads.

Source: ABS, Yearbook, Canberra, 2004 (1301.0).

## Table 10 Government funding of road-related expenditure (\$m)

Source of funds	99–00	00–01	01–02	02–03
Commonwealth	1 675	1 459	1 822	1 720
State	3 143	3 764	3 599	3 695
Local	2 632	2 290	2 264	2 240
<b>Total</b>	<b>7 450</b>	<b>7 512</b>	<b>7 685</b>	<b>7 656</b>

Notes: 1. Components may not sum to totals due to rounding.  
 2. Figures include road construction and maintenance, administration, regulation and subsidies associated with those activities. Figures for state and local expenditure differ from those in IS 23 on account of changes in the latest ABS GFS data.

Source: DOTARS, personal communications, 2004; ABS (2004a), State Road Authorities (1999–2004).

## Table 11 Summary Rail Statistics

	('000)			
	2000	2001	2002	2003
<b>Australia's rail network</b>				
Train Kilometres	na <sup>b</sup>	156 122	170 667	175 682
Passenger train km	na <sup>b</sup>	99 162	106 159	113 119
Passenger journeys	na <sup>b</sup>	514 776	510 126	507 705
Tram kilometres	na <sup>b</sup>	23 471	24 046	23 914
	2000 <sup>a</sup>	2001 <sup>a</sup>	2002 <sup>a</sup>	2003 <sup>a</sup>
<b>Freight carried</b>				
Million tonnes	492.0	508.0	535.1	544.6
Billion net tonne-km	127.4	134.2	137.7	158.1

a. Financial years.

b. 2000 data not available.

Source: Australian Rail Industry Report 2003. ATSB, personal communications.



## Table 12 Summary aviation statistics

Activity	International		Domestic <sup>a</sup>		Regional (est)	
	93-94	03-04	93-94	03-04	93-94	03-04
Aircraft movements	87 042	117 932	453 342	499 062	615 400	479 308
Hours flown ('000)	na	na	374	481	235	244
Km flown (mil)	na	na	223	293	78	82
Rev. pass-km (mil)	na	na	21 115	37 404	983	1 807
Revenue pass (mil)	10.6	18.1	20.0	31.1	3.3	4.4
Pass load factors (%)	67.6	71.5	77.2	79.9	57.4	62.7
Freight ('000 tonnes)	476.3	627.0	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>

a. Domestic air freight not available.

Source: BTRE, AVSTATS, unpublished. <http://www.btre.gov.au/statistics/statsindex.aspx>

## Table 13 Short Term International Air Travellers, 2003–2004

Australians departing to...		Visitors arriving from...	
New Zealand	737 811	New Zealand	925 331
United Kingdom	351 013	Japan	687 082
United States of America	342 073	United Kingdom	683 721
Indonesia	270 898	United States of America	422 687
Fiji	161 281	Singapore	252 485
Thailand	153 293	China	216 872
China	149 862	Korea (South)	215 720
Singapore	146 636	Malaysia	175 295
Hong Kong	139 006	Germany	140 182
Malaysia	125 967	Hong Kong	132 175
Other	1 351 397	Other	1 190 749

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

*Source: ABS, Overseas arrivals and departures, (3401).*

**Table 14 Aircraft registered<sup>a</sup> in Australia  
at 4 January 2005**

Engines	Aeroplane				Helicopter		Balloon		Glider <sup>b</sup>	
	1	2	3	4	1	2	0	1	0	1
Radial	282	34	1	1						
Reciprocating	7 133	1 231	5	1	746	1				
Rotary	1									138
Turbofan	3	230	10	65						
Turbojet	37	14								
Turboprop	225	351								
Turboshaft					355	93				
Nil engine							349	1	968	
<b>Total aircraft<sup>b</sup></b>	<b>7 681</b>	<b>1 860</b>	<b>16</b>	<b>67</b>	<b>1 101</b>	<b>94</b>	<b>349</b>	<b>1</b>	<b>968</b>	<b>138</b>

a. Includes amateur built aircraft.

b. Includes 131 power gliders.

Note: Total aircraft registered: 12276. Table excludes 1 gyro plane.

Source: Civil Aviation Safety Authority, Aircraft Register, Australia

## Table 15 Summary Maritime statistics

Indicator	International		Domestic	
	1994–95	2002–03	1994–95	2002–03
Total trade (\$ billion)	108	188	na	na
Loaded (\$ billion)	53	93	na	na
Discharged (\$ billion)	55	95	na	na
Total trade (million tonnes)	408	592	100	106
Loaded (million tonnes)	362	529	49	53
Discharged (million tonnes)	46	62	50	54
Estimated tonne-km (billion)	3 958	5 513	109	115
Average km shipped	9 694	9 139	2 220	2 174
Passengers carried ('000)	na	178 <sup>a</sup>	15 043	18 638 <sup>b</sup>

a. Persons clearing customs (inwards and outwards) at ports.

b. Includes urban public transport ferry services.

Note: Components may not sum to totals due to rounding.

Sources: ABS, International cargo statistics, unpublished; ACS, Quarterly statistical bulletin, Sep 2003; Apelbaum Consulting Group, Australian Transport Facts 2003, Table 3.3-4; BTRE, Australian Sea Freight, various issues.

## Table 16 Summary of Australian Shipping Activity<sup>a</sup>

Year	Number of ships entering Australia from overseas <sup>b</sup>	Number of voyages into Australia from overseas <sup>b</sup>	Number of ship calls at Australian ports <sup>c</sup>
1998-1999	3 187	9 744	20 899
1999-2000	3 165	9 893	21 683
2000-2001	3 162	9 738	21 493
2001-2002	3 144	8 824	21 351
2002-2003	3 140	8 935	23 454
2003-2004	3 368	9 265	23 408

a. Standard visits, as defined by Lloyd's Maritime Information.

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

c. Ship calls includes ships coasting around Australia.

Note: 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.

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

**Table 17 Top 10 Australian Ports, by weight & value  
— 2002–2003**

International only				Domestic & international	
Port	Weight (million T)	Port	Value (\$ billions)	Port	Weight (million T)
Dampier	101.2	Melbourne	50.0	Dampier	101.9
Port Hedland	77.4	Sydney	43.1	Port Hedland	81.8
Hay Point	76.0	Brisbane	19.6	Newcastle	77.1
Newcastle	74.9	Fremantle	15.4	Hay Point	76.1
Gladstone	41.9	Dampier	11.1	Gladstone	54.9
Port Walcott	39.6	Adelaide	7.2	Port Walcott	39.6
Brisbane	18.6	Newcastle	5.3	Melbourne	25.0
Fremantle	17.9	Hay Point	5.2	Brisbane	24.5
Melbourne	17.6	Gladstone	3.9	Fremantle	24.2
Sydney	16.6	Townsville	3.1	Port Kembla	23.5
Other	109.9	Other	24.5	Other	183.4

Sources: ABS International cargo statistics database, unpublished; BTRE, Coastal freight database, unpublished.

## Table 18 TEUs Exchanged at Australian Capital City ports

(‘000s TEUs)

Port	1999–2000	2000–01	2001–02	2002–03	2003–04
Brisbane	433	453	477	570	639
Sydney	1 011	989	1 009	1 161	1 270
Melbourne	1 288	1 317	1 421	1 594	1 718
Adelaide	116	133	145	148	169
Fremantle	297	354	382	431	457
All 5 ports	3 144	3 246	3 434	3 904	4 254

Note: TEU Twenty foot equivalent units.

Source: BTRE, Waterline, various issues, <http://www.btre.gov.au/docs/waterline/wline.aspx>

# Safety

**Table 19 OECD Road fatalities per 100 000 Population, 2002**

<b>Country</b>	<b>Fatalities</b>	<b>Country</b>	<b>Fatalities</b>	<b>Country</b>	<b>Fatalities</b>
Sweden	6.0	Canada	9.3	Czech Republic	14.0
UK	6.0	Ireland	9.6	Hungary	14.0
Netherlands	6.1	Iceland	10.1	Luxembourg	14.0
Norway	6.9	New Zealand	10.3	USA	14.8
Switzerland	7.1	Slovakia	11.3	Korea	14.9
Japan	7.5	Italy	11.6	Poland	15.2
Finland	8.0	Austria	11.9	Portugal	16.1
Germany	8.3	France	12.9	Belgium	n.a.
Denmark	8.6	Spain	13.2	Greece	n.a.
Australia	8.7	Slovenia	13.7	Turkey	n.a.
				OECD median	10.3

Source: ATSB, *International road safety comparisons – the 2002 report, 2004*



**Table 20 Australian Transport Fatality Statistics  
— 1993—2004**

<b>Year</b>	<b>Road</b>	<b>Rail</b>	<b>Marine</b>	<b>Aviation</b>
1993	1 953	52	69	53
1994	1 928	43	58	51
1995	2 017	46	55	39
1996	1 970	30	60	43
1997	1 767	43	46	28
1998	1 755	43	46	46
1999	1 764	41	51	39
2000	1 817	38	42	37
2001	1 737	35	56	41
2002	1 715	30	38	24
2003	1 634	na	na	34
2004	1 596	na	na	21

Sources: ATSB, personal communications.

# Environment

**Table 21 Estimated Greenhouse Gas emissions—  
CO<sub>2</sub> Equivalent—transport mode—2002**

(Gg)

Gas source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total	% Aust total
Road	64 887	597	4 385	69 869	12.7
Rail	1 818	2	16	1 836	0.3
Civil aviation	5 780	5	59	5 841	1.1
Domestic navigation	1 560	52	9	1 622	0.3
Other	42	0.0	0.0	42	0.0
All domestic transport	74 087	656	4 467	79 210	14.4
<i>International bunkers</i>					
Aviation	8 567	0.2	81.8	8 649	
Marine	2 533	2.5	21.7	2 558	

Notes: CO<sub>2</sub> carbon dioxide; CH<sub>4</sub> methane; N<sub>2</sub>O nitrous oxide. Components may not sum to totals due to rounding.

Source: Australian Greenhouse Office, National greenhouse gas inventory, 2002.

## Abbreviations used in tables

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ABS	Australian Bureau of Statistics	na	not available
ACS	Australian Customs Service	NSW	New South Wales
ACT	Australian Capital Territory	NT	Northern Territory
ATSB	Australian Transport Safety Bureau	Pass	passengers
av	Average	QLD	Queensland
Aust.	Australia	reg'n	registrations
AVSTATS	aviation statistics database	Rev. pass-km	revenue passenger kilometres.
CPI	Consumer Price Index	SA	South Australia
est	estimate	T	tonnes
GDP	Gross Domestic Product	T&S	Transport and Storage
Gg	Gigagram (or kilotonne)	Tas	Tasmania
km	kilometre	TEU	20 foot Equivalent Units
light com'l	light commercial	tkm	tonne-kilometres
m or mil	million	Vic	Victoria
Mt	Mega Tonnes	WA	Western Australia

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