

Interstate Freight in Australia, 1972–2005

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1 Introduction

There have been previous BTRE aggregate estimates and forecasts of interstate freight. Perry and Gargett (1998) made the first estimates. Later and updated estimates have recently been published by the Bureau (BTRE 2006, Chapter 5).

A start was made last year on disaggregate road interstate freight estimates – 56 State-to-State origin-destination (OD) time series (Gargett *et. al.* 2006).

This paper adds new disaggregate rail and coastal shipping State-to-State OD pair freight series and derives new OD pair interstate freight forecasts to 2030–31.

These estimates are important because capital city to capital city data has dried up, whereas annual interstate freight estimates can be derived from the Survey of Motor Vehicle Use (SMVU) (ABS 2007) for road, from rail companies for rail (BTRE 2007a), and from the BTRE for coastal shipping (BTRE 2007b).

2 Interstate road freight estimates

As detailed in an Australian Transport Research Forum (ATRF) paper last year (see Gargett *et. al.* 2006), a methodology has been developed to estimate new road freight origin destination (OD) matrices. Table 18 in the SMVU data cube gives what is termed a ‘State of registration to State of destination’ table. This is multiplied by a correction matrix (see Table 1), derived from a comparison of the SMVU Table 18 for 2001 with the ABS 2001 Freight Movement Survey (FMS) OD table. The result of the multiplication is an estimated interstate road freight OD matrix for the latest year of SMVU data.

For each of the 56 OD pairs, a regression is then re-run to interpolate between what are scattered interstate road freight estimates. The regressors used are truck tonnage series for the Hume and Eyre highways. The result is a series of 56 OD pair estimates of road freight flows (see Table 2 at the end of the paper).

Table 1 Correction table for SMVU data cube Table 18.

Origin	Destination							
	NSW	VIC	Qld	SA	WA	TAS	NT	ACT
NSW	3.56	3.78	4.01	6.79	0.00	6.79	4.53	
VIC	0.70		1.51	1.08	0.97	0.00	1.00	1.48
QLD	0.93	2.89		1.78	2.00	0.00	1.27	1.00
SA	0.83	1.14	1.65		2.07	0.00	2.43	2.50
WA	2.00	4.49	2.87	2.40		0.00	4.25	1.00
TAS	0.00	0.00	0.00	0.00	0.00		0.00	0.00
NT	1.67	1.00	2.19	0.85	1.96	0.00		1.00
ACT	0.32	0.44	0.72	1.61	1.00	0.00	1.00	

Figure 1 shows an example from Victoria to New South Wales.

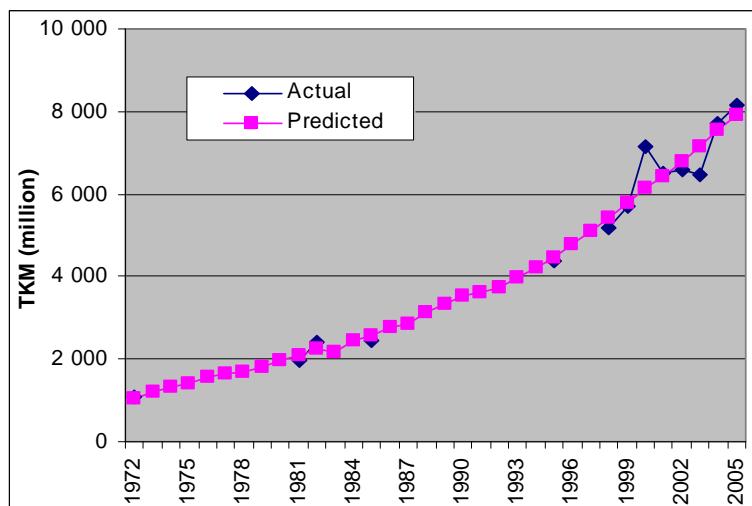


Figure 1 Interstate road freight data points and interpolation, Victoria to New South Wales.

3 Interstate rail forecasts

Many data sources were used to provide the base matrices of interstate rail freight for interpolation. The rail freight figures are for total interstate rail freight (inter-modal plus bulk).

These data sources included BTE (1976, 1979, 1983, 1985), FreightInfo™04 (and earlier), ABS (1982), ABS (1993 and earlier), ABS (1999 and earlier), ABS (2001) and BTRE (2007a). This latter publication has included interstate rail freight data for 2006 from the various rail systems, thus partially ending a rail data drought that has lasted since 2001.

The methodology for interpolation between data points was by straight lines. Judgement was often needed, as there were often multiple and sometimes conflicting data points. However, rail has a fair number of measured data points, which limits the interpolation task.

Figure 2 shows an example of the rail data points for the Victoria to Queensland route and the final series estimated (dotted line).

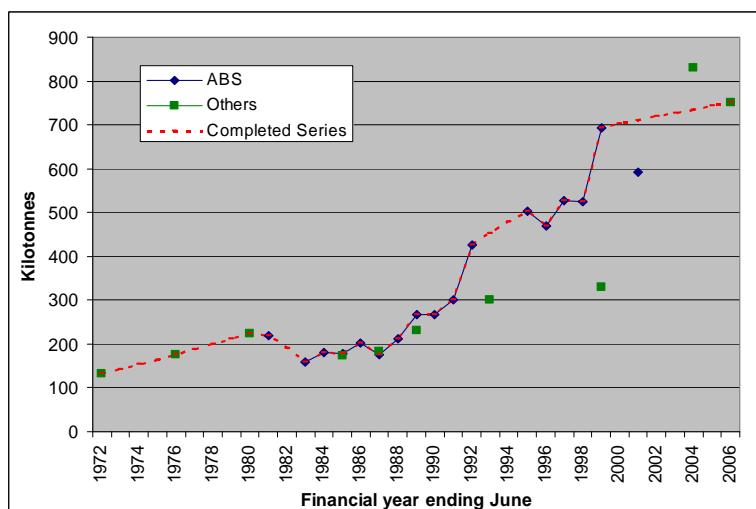


Figure 2 Interstate rail freight data points and interpolation, Victoria to Queensland. The result was a series of 56 OD pair estimates of State-to-State rail freight flows (see Table 2 at the end of the paper).

As can be seen from Figures 3 and 4, the assignment of our State-to-State estimates of interstate freight to the East-West and North-South Australian Rail Track Corporation (ARTC) routes, results in gross tonne-kilometre series that are similar to the ARTC series, which is available from 1999 onwards on the East-West corridor, and for 2005 and 2006 on the North-South corridor (ARTC 2007). Net tonne-kilometres in our estimates have been doubled to approximate gross tonne-kilometres. ARTC tonne-kilometre figures include some intrastate traffic, and so our estimates should be lower, but with the same trend — as they are.

4 Interstate shipping

Shipping data for most years is available from the BTRE's Coastal Shipping databases (BTRE 2007 and earlier). Unlike road and rail, coastal shipping was defined to include only non-bulk freight, as shipping bulk freight is a very different animal from road and rail cargoes. Interpolation was only necessary in the early 1970s.

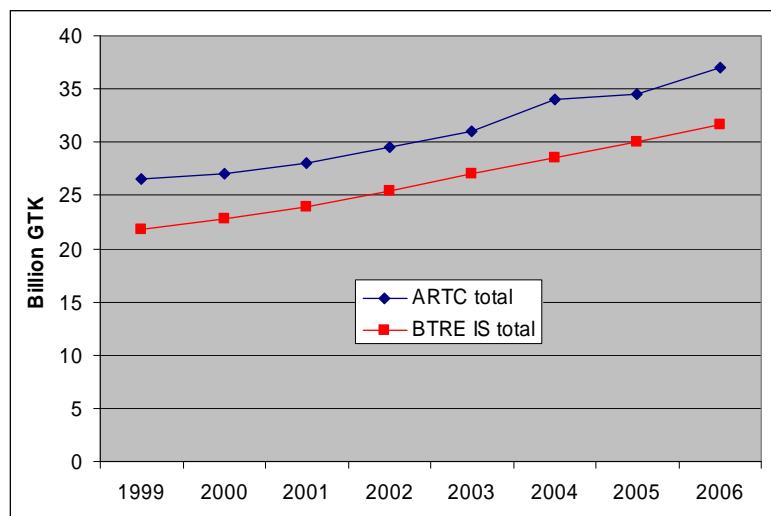


Figure 3 East-West rail gross tonne-kilometres, ARTC and current interstate rail freight estimates assigned.

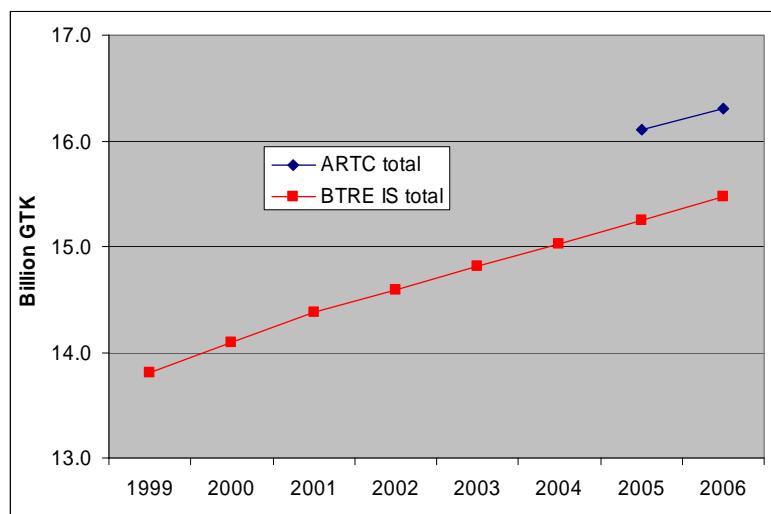


Figure 4 North-South rail gross tonne-kilometres, ARTC and current interstate rail freight estimates assigned.

5 Final interstate freight database

Table 2 sets out the tonnage estimates by mode for the 56 OD pairs.

Forecasts are also included in Table 2. There are two components of the forecasts – total freight on each of the 56 OD pairs, and the mode shares.

Table 3 gives the forecasting equations derived for total (all modes) freight on each route. Non-farm Gross Domestic Product (GDP) and change in GDP are the major explainers. Minor variables are a dummy for 1979 to 1988 (for delayed fuel price effects) and some route-specific dummies. The tonnage forecasts were made using Treasury's Intergenerational GDP forecasts (Treasury 2007). The average assumed GDP growth rate between 2005 and 2031 was 2.7 per cent per year. The assumed rates taper off over the years. One change has been made to the OD pair forecasts – that is, after 2010, the maximum income elasticity has been set to 1.9. Some of the ODs have huge elasticities and unless these are constrained they blow up the forecasts. Thus, to err on the side of the conservatism, we have constrained the huge elasticities. For example, Western Australia to South Australia has an income elasticity of 2.7442 (see Table 3). After 2010, this has been set to 1.90 in deriving the OD forecasts. If the OD elasticities are not constrained, the resulting aggregate interstate freight forecast would be 10 per cent higher.

Mode share forecasts were made using a logistic substitution methodology (BTRE 2006, p 66). Basically, the mode shares are projected forward using competitiveness indices based on past experience. These are business-as-usual forecasts, based as they are on historical trends alone.

Also shown in Table 2 are the route distances by mode. These have been derived from the 2001 Freight Movement Survey of the Australian Bureau of Statistics (ABS 2001, Cat. No. 9220.0, Table 4 divided by Table 3). When these are multiplied by the route kilotonnes, and the resulting tonne-kilometres summed over the routes, aggregate interstate tonne-kilometres by mode and total are derived. These are shown in Table 4.

Also shown in Table 4 are previous BTRE estimates of interstate freight derived from aggregate data on interstate freight (BTRE 2006, p 53). For example, the road figures were from SMVU estimates of total interstate road freight multiplied by 1.4 to allow for the interstate task done within the State of origin – something the SMVU does not define as interstate. For example, for road, freight tonne-kilometres of a shipment from Melbourne to Sydney, the SMVU would only record as interstate that portion of the task done on the Albury-Sydney leg. The 1.4 is a national-level adjustment of SMVU data to account for this fact. The two estimated series agree tolerably well given the differences in their methods of derivation and source datasets.

Table 4 also presents the forecast to 2031 derived from aggregating OD pair tonne-kilometre forecasts, and a forecast series for total interstate freight resulting from an aggregate regression. Table 5 gives the details of that equation. The income elasticity is 1.54, compared to an earlier BTRE income elasticity estimate for interstate freight of 1.4 (BTRE 2006, p 250).

Both the 'sum of routes' and 'aggregate' forecasts come to about the same result, with one reaching the level of the other only one year earlier by the end of the forecasts period (see Figure 5). Interstate freight is forecast to almost triple in 25 years. If one restricts the growth period to 20 years, then interstate freight is 2.5 times as great at the end of the period. This compares to the non-bulk freight category, which doubles over 20 years. But interstate has always been the fastest growing major freight category.

Table 3 Equations for individual routes.

Route	Years	Constant	GDP	Change GDP	dummy 1979-88	dummy 2	dummy 2 defined as:
NSW-VIC	72-05	-11.7957	1.5652	0.0070	-0.0477		
VIC-NSW	72-05	-12.5081	1.6169	-0.0048	0.0133	-0.0512	99-02=1.0; 03-05=1.5
NSW-QLD	72-05	-15.1392	1.7855	-0.0040	0.0315	-0.0619	00-01=1.0; 02-05=1.5
QLD-NSW	72-05	-19.0992	2.0691	-0.0088	0.0606	-0.0710	99-02=1.0; 03-04=1.5; 05=2.0
NSW-SA	72-96	-17.8669	1.8965	0.0053	-0.0199		
	97-05	-4.9436	0.9439	-0.0074			
SA-NSW	72-97	-16.3447	1.7775	-0.0006	0.0655		
	98-05	-9.4713	1.2554	-0.0038			
NSW-WA	72-94	-13.3063	1.4906	0.0222	-0.0842		
	95-05	-0.9469	0.5732	-0.0033		-0.1004	99=1.0
WA-NSW	72-05	-12.9706	1.4027	0.0205	-0.2184	0.1550	03-05=2.0
NSW-ACT	72-05	-7.2720	1.0813	0.0216	-0.1099	0.0972	01-05=1.0
ACT-NSW	72-00	-23.5102	2.2115	-0.0087	0.0757		
	01-05	-16.6531	1.7033	-0.0091			
NSW-NT	72-88	7.5113	-0.3115	0.0190	-0.1320		
	89-05	-15.7753	1.4696	0.0066			
NT-NSW	72-05	-14.5027	1.2847	0.0161	-0.1239		
NSW-TAS	72-05	set to 40					
TAS-NSW	72-05	set to 100					
VIC-QLD	72-05	-11.5187	1.4183	0.0152	-0.0533		
QLD-VIC	72-05	-28.4933	2.6591	0.0049	-0.0617	-0.0562	03-05=1.0
VIC-SA	72-05	-19.7142	2.0966	-0.0062	-0.0067	-0.0283	03-05=1.0
SA-VIC	72-05	-19.1015	2.0577	0.0052	0.0013		
VIC-WA	72-91	-8.0223	1.1020	0.0197	-0.1248		
	92-05	-14.0371	1.5534	-0.0009			
WA-VIC	72-05	-10.0855	1.1852	0.0161	-0.1957	0.3282	03-05=1.0
VIC-ACT	72-05	13.6371	-0.6891	-0.0030	0.0888		
ACT-VIC	72-05	-14.7782	1.3878	-0.0065	0.1849		
VIC-NT	72-05	set to 14					
NT-VIC	72-05	-11.3342	1.1046	0.0107	-0.1611	0.0942	01-05=1.0
VIC-TAS	72-05	4.4527	0.1678	0.0470	-0.4716	0.7929	00-02=0.3; 03=0.4; 04=0.65; 05=0.8
TAS-VIC	72-05	-13.5144	1.5405	0.0334	-0.1224	0.2278	04-05=1.0
QLD-SA	72-89	-21.9700	2.0705	-0.0038	-0.0757		
	90-05	-13.9367	1.4750	-0.0122			
SA-QLD	72-00	-12.9231	1.4244	0.0030	0.0327		
	01-05	2.5581	0.2801	0.0009			
QLD-WA	72-05	-13.4624	1.3239	0.0602	-0.6138	0.6780	93=0.25; 94=0.5; 95=0.75; 96-05=1.0
WA-QLD	72-05	-29.9427	2.6121	0.0093	-0.6545	-0.3376	00-05=1.0
QLD-ACT	72-05	set to 0					
ACT-QLD	72-05	set to 0					
QLD-NT	72-05	-13.7616	1.3933	-0.0016	0.0396	-0.2122	85-95=1.0
NT-QLD	72-05	-19.7275	1.8624	-0.0160	0.1078	-0.0815	00-04=1.0; 05=2.0
QLD-TAS	72-05	set to 6					
TAS-QLD	72-05	set to 10					
SA-WA	72-05	-23.8435	2.3258	0.0001	-0.2299	-0.5808	99=0.3; 00-01=0.6; 02=0.9; 03-05=1.0
WA-SA	72-05	-30.1980	2.7442	0.0280	-0.1947	-0.3946	97=0.25; 98=0.5; 99=0.75; 00-05=1.0
SA-ACT	72-05	set to 0					
ACT-SA	72-05	set to 0					
SA-NT	72-05	-13.3813	1.4467	0.0158	-0.0874		
NT-SA	72-05	-14.9499	1.5621	0.0063	-0.0327		
SA-TAS	72-05	set to 0					
TAS-SA	72-05	set to 10					
WA-ACT	72-05	set to 0					
ACT-WA	72-05	set to 0					
WA-NT	72-05	-21.2917	1.9594	0.0102	-0.0168		
NT-WA	72-05	-20.7870	1.9037	0.0085	-0.5597	0.6738	98=0.5; 04=1.0
WA-TAS	72-05	set to 8					
TAS-WA	72-05	set to 50					
ACT-NT	72-05	set to 0					
NT-ACT	72-05	set to 0					
ACT-TAS	72-05	set to 0					
TAS-ACT	72-05	set to 0					
NT-TAS	72-05	set to 0					
TAS-NT	72-05	set to 0					

Table 4 Aggregate estimates/forecasts.

Year	Current disaggregate methodology				Previous aggregate methodology				Current aggregate equation	
	Total Road	Total Rail	Total Sea	Total Interstate	Total Road	Total Rail	Total Sea	Total Interstate	Total	Interstate
1972	5.3	6.1	6.4	17.7	5.9	8.4	6.6	20.9		17.2
1973	6.6	6.6	5.6	18.8	6.8	8.6	6.1	21.4		18.5
1974	7.9	7.2	4.7	19.8	7.6	9.1	6.3	23.1		19.7
1975	8.4	7.7	4.0	20.1	7.9	8.7	5.8	22.3		19.8
1976	9.3	8.3	3.2	20.8	8.5	8.9	5.4	22.8		20.8
1977	9.8	8.5	2.5	20.8	9.2	9.2	4.8	23.3		21.9
1978	9.9	8.7	2.4	21.1	9.5	8.9	4.6	23.0		21.8
1979	11.0	8.9	2.4	22.3	10.7	9.7	4.0	24.4		22.7
1980	12.5	9.2	2.3	24.0	11.9	10.5	3.8	26.1		23.5
1981	13.5	9.4	2.3	25.2	13.0	10.9	3.5	27.5		25.1
1982	14.5	9.0	2.2	25.7	14.0	11.3	3.5	28.8		25.8
1983	12.9	8.6	2.4	23.9	13.9	10.0	2.4	26.2		24.2
1984	16.2	9.4	2.9	28.5	15.4	11.4	2.8	29.6		27.2
1985	16.7	9.4	2.9	29.0	16.9	11.3	2.9	31.1		29.8
1986	18.9	9.7	2.6	31.2	18.6	11.4	2.6	32.6		31.7
1987	19.1	10.8	2.5	32.5	19.3	11.8	2.6	33.6		32.3
1988	21.8	12.4	2.0	36.1	21.1	12.9	2.5	36.6		36.2
1989	24.2	14.0	2.2	40.4	22.9	14.5	2.8	40.2		40.3
1990	25.5	13.8	1.9	41.2	24.6	14.7	2.7	42.0		42.6
1991	25.5	13.1	1.7	40.3	24.2	13.6	2.8	40.6		40.2
1992	25.9	13.5	2.0	41.5	23.9	13.6	2.9	40.4		40.9
1993	28.8	14.5	2.0	45.3	25.5	14.2	3.1	42.8		44.5
1994	30.6	15.5	2.1	48.2	27.0	14.5	3.3	44.7		47.6
1995	32.9	16.4	2.5	51.8	29.7	13.9	3.4	47.0		52.1
1996	36.0	16.3	2.5	54.9	32.3	14.4	3.6	50.2		53.9
1997	38.5	16.9	2.6	57.9	34.1	15.3	3.6	53.0		57.4
1998	41.0	17.8	3.5	62.3	37.1	15.9	4.3	57.3		62.0
1999	43.6	18.4	3.0	65.1	40.0	16.5	4.4	60.9		67.1
2000	46.2	19.2	4.4	69.8	43.4	17.5	5.7	66.5		70.5
2001	47.2	20.0	4.6	71.7	45.2	17.6	6.9	69.8		71.2
2002	49.6	21.0	6.5	77.1	49.1	18.6	6.2	73.9		76.7
2003	52.1	22.0	7.3	81.4	51.9	19.5	7.3	78.7		82.2
2004	55.7	23.0	7.9	86.6						85.5
2005	58.5	24.0	6.4	88.9						88.8
2006	61.2	25.0	6.1	92.4						92.5
2007	64.2	26.1	6.3	96.6						96.3
2008	68.5	27.8	6.7	103.1						102.7
2009	71.0	28.6	6.8	106.4						105.4
2010	74.2	29.7	7.0	110.9						109.8
2011	77.4	30.8	7.1	115.3						113.9
2012	80.8	31.9	7.4	120.1						118.4
2013	84.4	33.1	7.6	125.2						123.3
2014	88.2	34.4	7.8	130.5						128.3
2015	92.3	35.8	8.0	136.1						133.8
2016	96.3	37.1	8.3	141.7						138.9
2017	100.6	38.5	8.5	147.7						144.5
2018	105.2	40.0	8.8	154.0						150.3
2019	109.9	41.5	9.0	160.6						156.5
2020	115.0	43.2	9.3	167.5						163.0
2021	120.2	44.9	9.6	174.7						169.7
2022	125.7	46.6	10.0	182.3						176.7
2023	131.4	48.5	10.3	190.2						184.0
2024	137.4	50.4	10.6	198.5						191.6
2025	143.7	52.4	11.0	207.2						199.7
2026	150.3	54.5	11.4	216.2						208.0
2027	157.2	56.7	11.7	225.7						216.7
2028	164.5	59.0	12.1	235.7						225.7
2029	172.1	61.4	12.6	246.0						235.1
2030	180.0	63.9	13.0	256.9						245.0
2031	188.3	66.5	13.5	268.3						255.1

Table 5 Aggregate interstate freight equation.

<u>SUMMARY OUTPUT</u>					
<i>Regression Statistics</i>					
Multiple R	0.99923				
R Square	0.99846				
Adjusted R Square	0.99831				
Standard Error	0.02092				
Observations	34				
<u>ANOVA</u>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	8.514744	2.838248	6483.201	2.91022E-42
Residual	30	0.013134	0.000438		
Total	33	8.527877			
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	
Intercept	-16.6372	0.159456	104.3377	5.57E-40	-
log non-farm GDP	1.542471	0.012108	127.3924	1.41E-42	
Change non-farm GDP	0.00933	0.002148	4.3415	0.000148	
dummy 1979-88	-0.06881	0.008405	-8.1874	3.87E-09	

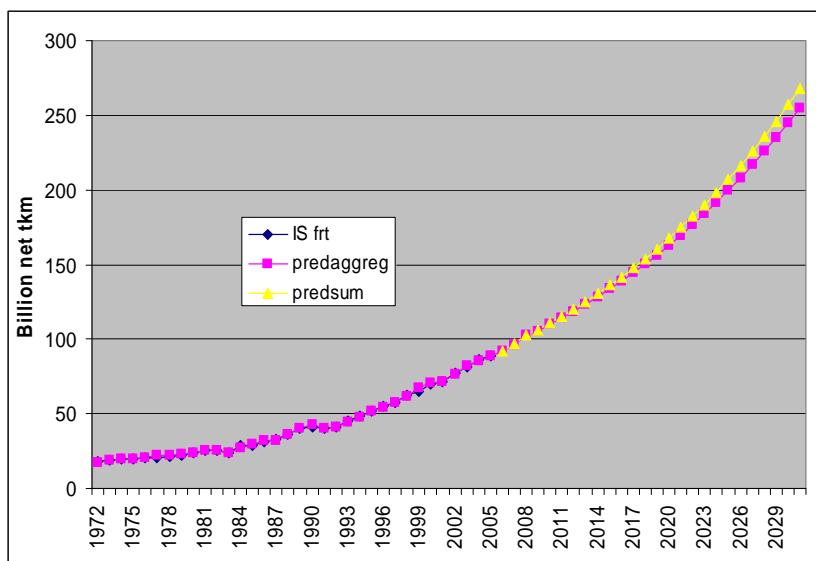


Figure 5 Interstate freight estimates and ‘sum of routes’ and ‘aggregate’ forecasts.

Of course, this forecast growth is predicated on there being no decoupling of freight growth from economic growth over the forecast period. It may well be that after a quarter of a century such decoupling, although not apparent as of 2007, will have become a reality, resulting in a tapering off of the exponential growth trend apparent in Figure 5.

Figures 6 and 7 show the mode splits derived from the ‘sum of routes’ forecasts — total and mode split. As has been commented on in conjunction with previous forecasts, there is nothing pre-ordained about the mode split forecasts. They are business-as-usual projections, and as such may not come to pass if, for example, rail became much more competitive on routes shorter than 1 500 kilometres as a result of investment, technological change and reorganisation, or if much higher oil prices changed the competitiveness of rail versus road.

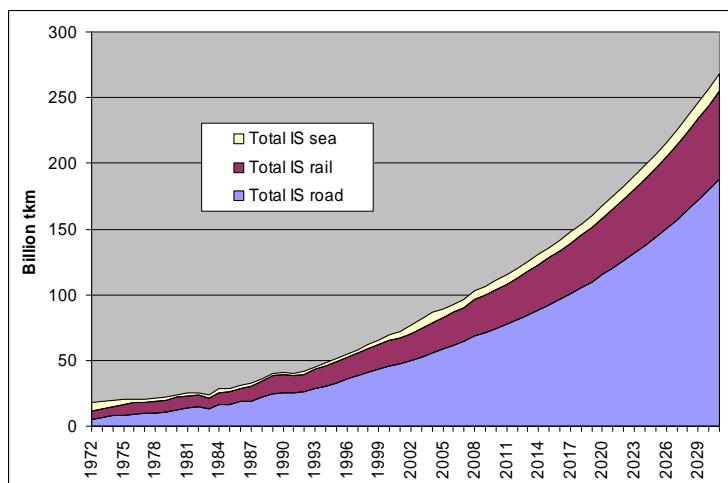


Figure 6 Total interstate freight by mode.

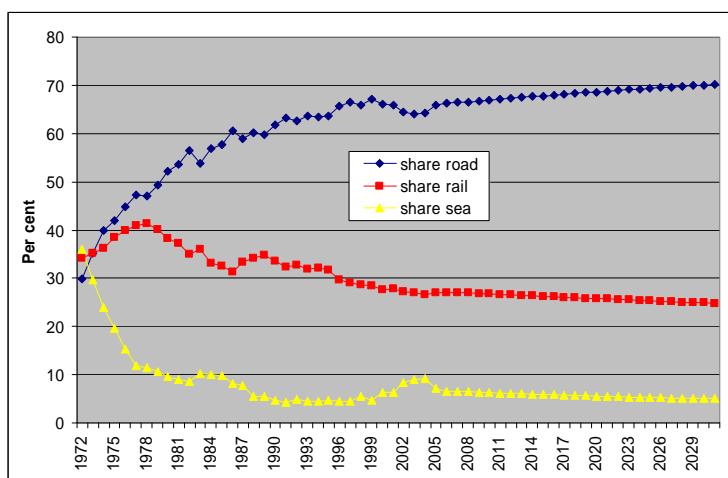


Figure 7 Interstate freight mode share.

6 Conclusions

It has been possible to derive detailed OD pair data on modal freight flows between States over almost 35 years.

The road estimates, when aggregated to tonne-kilometres, agree quite well with previous aggregate estimates by the BTRE. The rail estimates, when aggregated to tonne-kilometres and assigned to the rail network, agree quite closely with available ARTC data on corridor rail tasks. Coastal shipping has been quite completely measured by the BTRE in the past.

Thus it is now possible to use the estimation methodologies presented in this and a previous ATRF paper to update annually a comprehensive dataset on 56 OD pairs and to provide basecase forecasts for each OD pair and for the aggregate interstate freight task.

The paper also presents forecasts from 2006 to 2031 of freight tonnages, by corridor, by mode. When these forecasts are aggregated, the resulting total interstate freight task is forecast to almost triple over the next 25 years.

In conclusion, the State-to-State business-as-usual forecasts will be useful in assessing the likely future freight flows between States on the interstate road, rail and port networks, in assessing the success of efforts to improve these networks, and in assessing changes over time in the base State-to-State freight flow patterns.

Interstate Freight in Australia, 1972–2005

Table 2 Interstate freight movements (kilotonnes) between States and Territories, 1972–2031

Year	NSW-VIC				VIC-NSW				NSW-QLD				QLD-NSW				NSW-SA				SA-NSW				NSW-WA				WA-NSW			
	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea				
1972	2810	1330	1300	180	2440	1730	650	52	1380	620	660	100	950	580	320	53	390	230	160	3	400	220	180	2	250	9	100	130	140	12	12	110
1973	3050	1630	1300	120	2720	1980	640	89	1590	780	710	99	1100	720	330	51	440	270	160	3	450	270	180	2	270	14	130	120	140	19	37	86
1974	3270	1900	1300	70	2970	2210	640	130	1800	940	770	97	1240	860	330	50	480	320	160	3	490	310	180	2	300	19	160	110	150	25	62	58
1975	3370	2030	1300	47	3100	2340	630	130	1910	1010	830	72	1300	930	340	39	500	340	160	3	500	330	180	0	310	22	200	96	160	29	87	43
1976	3610	2290	1300	24	3310	2560	630	130	2090	1160	880	48	1430	1060	340	29	540	380	160	3	540	360	180	0	320	17	230	77	160	23	110	27
1977	3730	2410	1300	21	3380	2690	630	55	2190	1230	920	42	1520	1130	360	36	580	400	180	3	590	380	210	0	330	19	240	75	130	26	100	0
1978	3760	2450	1300	18	3470	2780	630	55	2230	1250	950	37	1560	1150	370	43	610	400	200	3	620	390	230	0	340	20	250	73	120	26	92	0
1979	4000	2680	1300	15	3680	2990	640	55	2400	1390	980	32	1710	1270	390	50	660	440	220	3	690	420	260	0	350	24	260	71	110	32	82	0
1980	4320	3010	1300	12	3960	3260	640	55	2630	1580	1010	27	1910	1450	400	57	730	490	240	3	760	470	290	0	370	30	270	70	110	40	72	0
1981	4540	3230	1300	9	4170	3470	650	55	2830	1720	1080	22	2020	1570	380	64	750	520	220	3	820	510	310	0	370	35	270	68	120	46	73	0
1982	4500	3450	1050	6	4380	3670	650	55	2860	1850	990	17	2180	1700	420	71	760	560	200	3	820	540	290	0	350	41	240	66	150	53	100	0
1983	3930	3130	800	3	4270	3560	660	55	2570	1660	900	12	2050	1520	450	79	700	510	180	10	760	490	260	14	320	34	220	64	170	43	130	0
1984	4760	3810	950	3	4740	4060	680	2	3080	2080	980	24	2350	1900	390	58	830	620	210	1	900	590	310	0	410	50	260	100	170	64	90	14
1985	4860	3930	920	2	4980	4220	740	12	3150	2150	970	27	2420	1970	440	11	860	630	220	0	910	610	300	0	430	54	250	130	180	69	93	21
1986	5330	4370	960	2	5280	4580	700	0	3540	2430	1090	22	2820	2220	590	3	860	700	160	1	940	670	270	0	500	67	300	130	200	83	120	4
1987	5640	4430	1200	2	5440	4720	720	0	3610	2470	1130	3	2900	2250	640	5	1020	710	310	0	950	680	270	0	450	69	310	72	190	83	110	0
1988	6050	4950	1100	2	5960	5130	830	2	4050	2800	1250	2	3140	2550	590	3	1140	790	350	0	1100	760	350	0	560	86	480	1	200	100	100	0
1989	6660	5410	1250	3	6460	5510	950	2	4570	3100	1460	4	3430	2830	600	0	1250	860	400	0	1210	820	370	21	650	100	530	19	230	120	110	4
1990	6900	5670	1230	3	6660	5780	870	0	4670	3270	1390	5	3610	2980	620	9	1360	900	460	3	1240	860	380	0	570	110	450	1	240	130	110	0
1991	6840	5740	1100	3	6790	5960	830	7	4520	3320	1190	9	3580	3020	560	3	1320	910	410	4	1170	870	300	0	540	110	430	6	220	120	100	0
1992	6890	5810	1080	3	6740	6130	600	3	4480	3370	1110	4	3640	3060	570	4	1230	920	310	1	1200	880	320	0	600	110	470	15	240	120	120	1
1993	7470	6270	1190	3	7190	6540	640	10	4820	3680	1130	5	3900	3340	550	6	1440	990	450	5	1320	950	380	0	650	150	500	11	290	150	150	2
1994	7980	6670	1300	3	7620	6920	660	41	5110	3940	1150	9	4120	3580	530	6	1640	1050	590	3	1400	1000	400	0	700	150	520	23	320	150	170	1
1995	8480	7060	1410	3	8000	7310	680	12	5400	4210	1170	9	4350	3830	510	12	1840	1110	730	3	1480	1060	430	0	790	180	550	58	360	160	200	4
1996	9410	7770	1630	4	8520	7880	610	29	5870	4700	1150	21	4760	4260	490	5	2020	1210	800	5	1520	1160	360	0	800	180	560	50	290	160	130	1
1997	10060	8370	1650	48	9070	8390	650	33	6150	5120	1020	12	5100	4640	460	3	2160	1300	860	0	1540	1240	300	2	820	180	590	48	340	160	190	0
1998	10730	8980	1660	96	9590	8920	630	38	6620	5550	1000	69	5650	5020	590	36	2190	1390	800	1	1600	1330	270	3	850	190	600	66	390	150	240	0
1999	11370	9710	1630	28	10100	9530	570	6	7120	6070	1000	53	5980	5490	480	7	2320	1500	820	0	1690	1430	260	0	780	170	610	2	460	140	310	8
2000	12280	10430	1770	84	10730	10140	570	25	7560	6590	900	72	6490	5950	500	33	2410	1600	800	2	1790	1530	260	3	880	160	620	110	470	130	300	42
2001	12720	10790	1900	34	11160	10560	570	29	7710	6850	800	60	6880	6190	500	200	2490	1660	800	29	1840	1580	260	3	920	150	620	160	430	120	290	23
2002	13350	11420	1880	51	11720	11150	570	4	8120	7310	800	20	7120	6600	500	20	2550	1750	800	3	1940	1670	260	16	920	140	630	150	520	120	340	66
2003	13940	12030	1850	69	12320	11730	570	15	8640	7760	790	87	7510	7000	500	11	2650	1840	800	10	2010	1750	260	2	950	140	630	180	600	120	380	110
2004	14630	12790	1820	19	13000	12420	570	19	9280	8330	790	170	8190	7510	500	190	2750	1950	800	4	2110	1850	260	2	940	150	640	160	560	120	430	8
2005	15180	13350	1800	31	13590	13000	570	29	9650	8750	780	120	8440	7880	500	61	2830	2030	800	6	2190	1930	260	0	970	170	640	140	470	140	34	
2006	15900	14000	1870	32	14190	13570	590	30	10160	9220	810	130	8610	8040	510	62	2900	2080	820	6	2260	2000	260	0	990	170	660	160	640	140	490	9
2007	16580	14610	1930	34	14820	14180	610	31	10660	9680	840	140	9100	8500	530	66	2970	2130	840	7	2340	2070	270	0	1010	170	670	160	670	150	510	10
2008	17290	15250	2000	35	15470	14800	640	33	11180	10160	870	140	9620	8990	560	69	3050	2180	860	7	2420	2140	280	0	1020	180	680	170	690	150	530	10
2009	18020	15920	2070	37	16150	15460	660																									

Interstate Freight in Australia, 1972–2005

Table 2 Interstate freight movements (kilotonnes) between States and Territories, 1972-2031 (continued)

Year	NSW-ACT				ACT-NSW				NSW-NT				NT-NSW				NSW-TAS				TAS-NSW				VIC-QLD				QLD-VIC				VIC-SA				SA-VIC							
	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea								
1972	780	270	510	0	63	58	5	0	40	9	4	26	6	3	0	3	150	0	0	150	240	0	0	240	540	210	130	200	150	65	43	45	810	400	410	5	920	320	580	17				
1973	750	320	430	0	75	70	5	0	39	11	4	24	7	4	0	3	160	0	0	160	160	0	0	160	630	310	140	170	180	90	42	45	880	460	420	6	1020	420	580	17				
1974	720	370	350	0	90	85	5	0	39	13	4	22	7	4	1	3	170	0	0	170	83	0	0	83	710	420	150	140	200	120	40	45	940	520	520	8	1120	520	580	17				
1975	660	390	270	0	98	93	5	0	37	13	4	20	7	4	1	2	180	0	0	180	71	0	0	71	710	440	160	110	210	130	39	43	1000	560	420	15	1160	560	580	8				
1976	630	440	190	0	110	100	5	0	37	15	4	18	7	5	1	1	190	0	0	190	60	0	0	60	790	540	180	81	230	150	37	40	1070	620	420	23	1250	670	580	0				
1977	640	460	190	0	120	110	5	0	35	15	4	16	6	5	1	0	170	0	0	170	89	0	0	89	800	540	190	70	220	160	39	17	1120	670	430	22	1330	710	610	0				
1978	650	460	180	0	120	110	5	0	34	16	4	14	6	5	1	1	0	160	0	0	160	120	0	0	120	760	500	200	60	220	170	41	17	1170	710	440	22	1370	730	640	0			
1979	680	500	180	0	130	120	5	0	33	17	4	12	7	6	1	0	140	0	0	140	150	0	0	150	830	570	210	49	250	190	42	17	1240	780	440	21	1500	830	670	0				
1980	730	560	170	0	150	140	5	0	33	19	4	10	7	6	1	0	120	0	0	120	180	0	0	180	950	690	220	38	290	230	44	17	1330	860	450	21	1670	970	700	0				
1981	760	590	170	0	160	150	5	0	32	20	4	8	7	6	1	0	110	0	0	110	210	0	0	210	980	730	220	27	310	250	39	17	1450	930	500	20	1810	1070	750	0				
1982	780	630	150	0	170	170	5	0	31	21	4	6	8	7	1	0	94	0	0	94	240	0	0	240	980	770	190	17	340	280	43	17	1540	1010	510	20	1840	1160	680	0				
1983	710	580	140	0	150	150	5	0	27	19	4	4	7	6	1	0	79	0	0	79	270	0	0	270	690	530	160	6	300	240	46	17	1560	1020	520	19	1640	1020	610	3				
1984	850	690	160	0	190	190	5	0	28	23	4	1	8	7	1	0	110	0	0	110	310	0	0	310	980	790	180	8	430	320	70	36	1810	1170	630	6	2070	1340	730	0				
1985	880	710	170	0	190	190	5	0	28	24	4	0	8	8	1	0	110	0	0	110	300	0	0	300	940	760	180	5	420	330	80	7	1910	1250	660	4	2090	1390	700	0				
1986	900	780	120	0	220	220	5	0	30	26	4	0	9	8	1	0	130	0	0	130	260	0	0	260	1100	890	200	4	480	390	81	1	1960	1380	580	0	2260	1610	640	15				
1987	920	800	120	0	220	220	5	0	30	26	4	0	9	8	1	0	120	0	0	120	320	0	0	320	1000	820	180	2	480	400	85	0	2030	1460	580	0	2360	1640	720	0				
1988	1010	880	130	0	250	250	5	0	32	28	4	0	10	9	1	0	110	0	0	110	180	0	0	180	1180	970	210	0	560	470	85	0	2260	1610	650	0	2730	1900	820	0				
1989	1080	950	130	0	280	270	5	0	35	31	4	0	11	10	1	0	97	0	0	97	290	0	0	290	1360	1090	270	1	650	540	110	0	2520	1770	750	0	3060	2150	910	0				
1990	1120	1000	120	0	290	290	5	0	36	32	4	0	11	10	1	0	90	0	0	90	140	0	0	140	1360	1100	270	0	710	580	130	0	2670	1900	770	0	3040	2290	740	0				
1991	1130	1010	120	0	290	290	5	0	36	32	4	0	12	11	1	0	93	0	0	93	160	0	0	160	1300	1000	300	0	730	580	140	0	2810	2000	810	0	3030	2330	700	1				
1992	1130	1020	110	0	300	290	5	0	37	33	4	0	12	11	1	0	130	0	0	130	200	0	0	200	1350	920	430	4	780	590	190	0	2960	2120	840	0	3120	2370	750	0				
1993	1190	1090	97	0	330	320	5	0	39	35	4	0	12	11	1	0	90	0	0	90	180	0	0	180	1460	1000	450	6	910	660	200	54	3150	2300	850	0	3480	2630	850	0				
1994	1240	1160	81	0	350	340	5	0	45	37	4	4	14	12	1	1	98	0	0	98	140	0	0	140	1530	1040	480	10	940	720	210	6	3270	2490	780	2	3810	2860	950	3				
1995	1280	1220	66	0	370	370	5	0	42	38	4	0	15	13	1	1	70	0	0	70	200	0	0	200	1580	1070	500	6	1010	780	220	1	3390	2690	700	2	4140	3090	1040	0				
1996	1400	1330	70	0	410	410	5	0	52	42	4	6	16	14	1	1	49	0	0	49	120	0	0	120	1710	1230	470	16	1110	910	190	7	3680	2950	700	29	4590	3520	1060	0				
1997	1500	1420	80	0	450	440	5	0	57	45	4	9	16	15	1	0	34	0	0	34	1	0	0	1	1860	1320	530	15	1260	1010	230	12	4140	3210	930	3	4840	3900	950	2				
1998	1610	1520	91	0	480	480	5	0	57	47	4	5	17	16	1	0	14	0	0	14	12	0	0	12	1990	1410	520	50	1420	1120	290	8	4770	3490	1280	10	5360	4290	1060	5				
1999	1720	1630	93	0	530	530	5	0	58	51	4	3	18	17	1	0	12	0	0	12	3	0	0	3	2260	1540	690	25	1540	1260	260	21	5050	3800	1240	6	5620	4770	850	0				
2000	1840	1740	98	0	570	570	5	0	66	54	4	8	19	18	1	0	40	0	0	40	210	0	0	210	2430	1650	700	81	1730	1400	300	22	5420	4130	1280	8	6170	5260	910	1	960	5610	960	51
2001	1900	1790	100	0	600	590	5	0	64	55	4	4	19	18	1	0	57	0	0	57	73	0	0	73	2350	1600	710	41	1860	1470	350	43	5740	4410	1320	17	6520	5510	960	51				
2002	1960	1890	69	0	630	630	0	0	63	58	4	1	20	19	1	0	32	0	0	32	51	0	0	51	2440	1650	720	79	1990	1590	390	8	6140	4750	1360	30	6970	5950	1020	0				
2003	2020	1980	34	0	660	660	0	0	71	60	4	6	21	20	1	0	35	0	0	35	44	0	0	44	2520	1670	730	120	2160	1720	440	10	6540	5120	1390	27	7460	6390	1080	0				
2004	2090	2090	0	0	710	710																																						

Table 2 Interstate freight movements (kilotonnes) between States and Territories, 1972–2031 (continued)

Year	VIC-WA				WA-VIC				VIC-ACT				ACT-VIC				VIC-NT				NT-VIC				VIC-TAS				TAS-VIC				QLD-SA				SA-QLD				
	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea					
1972	390	32	150	210	190	11	9	170	130	130	7	0	8	8	0	0	16	0	4	12	14	6	0	8	1070	0	0	1070	1180	0	0	1180	55	36	16	4	150	84	61	0	
1973	440	49	180	210	200	16	23	160	130	120	8	0	13	13	0	0	16	0	4	11	15	8	0	8	910	0	0	910	780	0	0	780	64	45	16	4	150	100	54	0	
1974	490	67	220	200	220	22	36	160	130	120	9	0	18	18	0	0	15	0	5	10	16	9	0	7	760	0	0	760	380	0	0	380	71	53	15	4	160	110	48	1	
1975	470	76	260	140	180	25	50	110	130	120	9	0	19	19	0	0	16	0	5	11	16	9	0	7	820	0	0	820	320	0	0	320	73	56	15	2	160	120	41	1	
1976	430	60	290	82	140	20	63	59	130	120	10	0	23	23	0	0	17	0	6	11	16	10	0	6	890	0	0	890	270	0	0	270	78	64	14	0	170	130	34	1	
1977	420	67	280	75	92	22	67	3	130	120	11	0	23	23	0	0	18	0	6	12	16	11	0	5	820	0	0	820	320	0	0	320	81	68	13	0	190	140	53	0	
1978	410	69	270	67	100	22	71	3	130	120	12	0	21	21	0	0	19	0	6	13	16	11	0	5	750	0	0	750	370	0	0	370	81	69	12	0	210	140	71	0	
1979	400	83	260	60	100	27	74	3	130	110	12	0	23	23	0	0	20	0	7	13	16	12	0	4	680	0	0	680	420	0	0	420	87	76	11	0	230	150	90	0	
1980	410	100	250	53	120	34	78	3	120	110	13	0	29	29	0	0	21	0	7	14	17	13	0	4	610	0	0	610	460	0	0	460	96	86	10	0	270	160	108	0	
1981	450	120	290	46	150	39	110	3	120	110	14	0	31	31	0	0	22	0	7	15	17	14	0	3	540	0	0	540	510	0	0	510	100	93	10	0	250	170	85	0	
1982	460	140	290	38	180	45	130	3	120	110	15	0	31	31	0	0	23	0	8	15	17	15	0	3	480	0	0	480	560	0	0	560	110	100	6	0	250	180	78	0	
1983	430	110	290	31	190	37	150	3	120	110	15	0	19	19	0	0	24	0	8	16	15	13	0	2	410	0	0	410	610	0	0	610	90	90	2	1	230	160	70	0	
1984	490	150	310	25	200	55	130	14	120	100	18	0	31	31	0	0	11	0	9	2	17	16	0	1	490	0	0	490	710	0	0	710	120	110	9	0	270	190	84	0	
1985	560	150	320	84	190	59	110	18	120	100	19	0	29	29	0	0	10	0	10	0	16	16	0	0	510	0	0	510	700	0	0	700	140	120	11	9	270	190	83	1	
1986	560	180	310	71	190	69	110	6	120	100	17	0	34	34	0	0	8	0	8	0	18	18	0	0	560	0	0	560	700	0	0	700	140	130	12	0	280	210	73	0	
1987	580	170	360	52	210	67	140	6	110	100	14	0	31	31	0	0	10	0	10	0	19	18	1	0	660	0	0	660	920	0	0	920	150	130	18	0	280	210	75	0	
1988	670	200	400	69	220	80	140	2	110	12	0	37	37	0	0	11	0	11	0	22	20	2	0	680	0	0	680	900	0	0	900	180	150	27	2	320	220	98	0		
1989	760	230	490	46	250	90	150	4	100	94	11	0	41	41	0	0	12	0	12	0	24	22	2	0	830	0	0	830	1040	0	0	1040	210	160	49	0	370	240	130	0	
1990	710	240	460	22	240	93	150	1	100	92	10	0	41	41	0	0	12	0	12	0	24	22	2	0	860	0	0	860	1130	0	0	1130	250	170	72	11	410	250	160	0	
1991	650	210	430	10	250	83	160	2	100	91	9	0	36	36	0	0	13	0	13	0	25	23	2	0	760	0	0	760	1250	0	0	1250	250	170	78	0	380	250	140	0	
1992	630	200	410	19	280	81	200	0	100	89	8	0	32	32	0	0	13	0	13	0	25	23	2	0	810	0	0	810	1090	0	0	1090	240	180	63	0	390	250	140	0	
1993	660	240	380	44	310	96	210	4	87	87	0	0	34	34	0	0	14	0	14	0	27	24	3	0	850	0	0	850	1080	0	0	1080	270	190	60	14	420	260	160	0	
1994	720	230	440	56	320	92	230	1	86	86	0	0	36	36	0	0	16	0	16	0	29	26	3	0	880	0	0	880	1290	0	0	1290	270	200	58	3	450	270	180	0	
1995	820	230	500	86	350	96	250	4	84	84	0	0	36	36	0	0	17	0	17	0	31	27	4	0	970	0	0	970	1240	0	0	1240	270	220	55	0	490	280	200	0	
1996	820	210	530	80	300	90	210	1	81	81	0	0	41	41	0	0	22	0	18	4	34	30	4	1	1060	0	0	1060	1310	0	0	1310	290	240	47	0	480	300	180	1	
1997	850	190	570	95	290	79	210	0	79	79	0	0	44	44	0	0	17	0	17	0	35	32	3	0	1110	0	0	1110	1440	0	0	1440	320	260	56	0	500	320	180	0	
1998	870	160	610	100	330	70	260	7	78	78	0	0	47	47	0	0	16	0	16	0	33	33	0	0	1080	0	0	1080	1420	0	0	1420	340	280	58	0	520	340	180	1	
1999	940	150	650	130	350	65	280	4	76	76	0	0	50	50	0	0	20	0	20	0	38	36	2	0	1090	0	0	1090	1440	0	0	1440	340	310	37	0	560	360	200	0	
2000	1050	140	700	210	400	60	340	6	75	75	0	0	53	53	0	0	17	0	17	0	41	38	3	0	1260	0	0	1260	1490	0	0	1490	380	330	50	2	570	370	200	0	
2001	1080	130	740	210	460	55	390	20	73	73	0	0	50	50	0	0	14	0	14	0	42	39	3	0	1080	0	0	1080	1520	0	0	1520	410	340	62	1	570	380	190	2	
2002	1160	120	780	250	540	53	440	49	71	71	0	0	52	52	0	0	14	0	14	0	44	41	3	0	1290	0	0	1290	1860	0	0	1860	430	360	64	0	580	400	180	4	
2003	1280	120	830	330	640	53	490	94	70	70	0	0	52	52	0	0	14	0	14	0	46	43	3	0	1460	0	0	1460	2220	0	0	2220	420	450	390	6	0	590	410	170	3
2004	1320	130	870	320	620	56	550	16	66	66	0	0	62	62	0	0	14	0	14	0	48	45	3	0	1680	0	0	1680	2560	0	0	2560	480	410	68	0	590	430	170	2	
2005	1360	140	910	310	690	62	600	31	65	65	0	0	71	71	0	0	14	0	14																						

Table 2 Interstate freight movements (kilotonnes) between States and Territories, 1972–2031 (continued)

Year	QLD-WA				WA-QLD				QLD-ACT				ACT-QLD				QLD-NT				NT-QLD				QLD-TAS				TAS-QLD				SA-WA				WA-SA			
	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea				
1972	54	4	6	44	15	3	1	12	0	0	0	0	0	0	0	36	23	0	12	34	34	0	0	15	0	0	4	190	9	170	7	120	12	88	18					
1973	52	6	6	41	23	4	9	10	0	0	0	0	0	0	0	47	28	0	19	41	41	0	0	8	5	0	5	240	14	220	5	120	17	89	10					
1974	51	8	6	37	30	6	17	7	0	0	0	0	0	0	0	57	31	0	26	47	47	0	0	1	0	0	1	7	0	0	7	280	19	260	4	110	24	90	1	
1975	41	10	5	26	36	7	25	5	0	0	0	0	0	0	0	55	33	0	22	50	50	0	0	2	0	0	2	7	0	0	7	330	22	310	4	120	27	91	1	
1976	28	8	5	16	40	5	33	2	0	0	0	0	0	0	0	56	37	0	19	55	55	0	0	3	0	0	3	7	0	0	7	370	17	350	4	110	21	92	0	
1977	16	9	6	2	33	6	26	2	0	0	0	0	0	0	0	57	39	0	19	58	58	0	0	3	0	0	3	14	0	0	14	370	19	350	0	120	24	92	0	
1978	18	9	7	2	26	6	18	2	0	0	0	0	0	0	0	58	39	0	19	59	59	0	0	4	0	0	4	21	0	0	21	380	20	360	0	120	25	93	0	
1979	20	11	8	2	20	8	11	2	0	0	0	0	0	0	0	61	42	0	19	63	63	0	0	5	0	0	5	28	0	0	28	390	24	370	0	120	30	94	0	
1980	24	13	9	2	14	10	3	1	0	0	0	0	0	0	0	65	47	0	19	70	70	0	0	6	0	0	6	36	0	0	36	400	30	370	0	130	37	95	0	
1981	23	15	6	2	16	11	4	1	0	0	0	0	0	0	0	68	49	0	19	74	74	0	0	7	0	0	7	43	0	0	43	380	35	350	0	170	43	120	0	
1982	25	18	5	2	20	13	7	1	0	0	0	0	0	0	0	71	52	0	19	79	79	0	0	8	0	0	8	50	0	0	50	360	41	320	0	170	49	120	0	
1983	21	15	4	2	20	10	9	1	0	0	0	0	0	0	0	67	48	0	19	85	73	0	0	12	9	0	9	57	0	0	57	330	42	290	0	160	40	120	0	
1984	27	22	4	1	29	15	14	0	0	0	0	0	0	0	0	87	57	0	30	110	86	0	0	26	11	0	0	11	56	0	0	56	420	75	340	0	200	60	140	1
1985	27	24	3	0	30	16	14	0	0	0	0	0	0	0	0	65	58	0	7	88	88	0	0	1	0	0	1	50	0	0	50	420	93	330	0	220	64	160	0	
1986	31	29	2	0	41	20	21	0	0	0	0	0	0	0	0	71	64	0	7	100	97	0	0	3	7	0	0	7	48	0	0	48	430	130	300	0	280	89	190	0
1987	32	30	2	0	47	21	26	0	0	0	0	0	0	0	0	71	65	0	6	98	98	0	0	12	62	0	0	62	600	150	450	0	280	100	180	0				
1988	48	38	10	0	59	26	33	0	0	0	0	0	0	0	0	74	71	0	3	110	110	0	0	1	0	0	1	27	0	0	27	690	210	470	2	310	140	170	1	
1989	55	45	8	2	77	32	42	3	0	0	0	0	0	0	0	77	77	0	0	120	120	0	0	4	0	0	4	4	0	0	4	800	280	520	1	380	180	200	3	
1990	55	50	5	0	57	35	22	0	0	0	0	0	0	0	0	81	80	0	1	120	120	0	0	1	0	0	1	11	0	0	11	940	340	610	0	410	220	190	0	
1991	62	48	14	0	78	33	44	1	0	0	0	0	0	0	0	80	80	0	0	120	120	0	0	1	0	0	1	1	0	0	1	890	350	540	2	400	220	170	0	
1992	76	50	25	1	130	35	53	39	0	0	0	0	0	0	0	81	81	0	0	120	120	0	0	1	0	0	1	1	0	0	1	930	400	520	7	430	250	160	16	
1993	100	64	37	1	110	45	61	0	0	0	0	0	0	0	0	88	87	0	1	130	130	0	0	3	0	0	3	2	0	0	2	1110	540	560	7	520	340	180	3	
1994	130	68	48	11	120	48	68	0	0	0	0	0	0	0	0	92	92	0	0	140	140	0	0	1	2	0	0	2	1	0	0	1	1160	610	550	0	570	380	190	0
1995	150	78	60	9	130	55	76	1	0	0	0	0	0	0	0	98	96	0	2	150	150	0	0	5	0	0	5	1	0	0	1	1290	740	540	5	680	460	200	16	
1996	170	81	89	2	150	57	95	1	0	0	0	0	0	0	0	120	100	0	12	160	160	0	0	1	0	0	1	0	0	0	0	1420	820	600	4	720	510	200	5	
1997	180	81	93	4	160	58	110	0	0	0	0	0	0	0	0	140	110	0	26	170	170	0	0	1	0	0	1	1	0	0	1	1480	870	600	8	700	540	170	0	
1998	190	82	88	22	180	58	94	30	0	0	0	0	0	0	0	150	120	0	32	180	180	0	0	0	0	0	0	0	0	0	0	1530	920	600	11	740	570	160	4	
1999	200	76	90	30	180	54	100	28	0	0	0	0	0	0	0	140	130	0	12	190	190	0	0	1	0	0	1	4	0	0	4	1460	860	600	5	760	530	230	3	
2000	200	70	91	41	170	50	110	10	0	0	0	0	0	0	0	160	130	0	30	210	210	0	1	1	0	0	0	0	0	0	0	0	1430	790	630	7	800	490	290	27
2001	220	64	93	66	160	46	110	1	0	0	0	0	0	0	0	170	140	0	29	210	210	0	3	6	0	0	6	1	0	0	0	1410	730	660	29	800	450	350	6	
2002	190	63	94	36	180	45	130	4	0	0	0	0	0	0	0	180	140	0	31	230	220	0	3	5	0	0	5	17	0	0	17	1400	710	690	11	870	440	410	22	
2003	230	62	96	71	210	44	150	21	0	0	0	0	0	0	0	180	150	0	32	240	230	0	3	6	0	0	6	3	0	0	3	1440	700	710	23	910	430	470	12	
2004	280	66	97	110	230	47	160	15	0	0	0	0	0	0	0	190	160	0	31	260	250	0	12	1	0	0	1	26	0	0	26	1510	750	740	15	1010	460	530	19	
2005	220	73	99	52	240	52	180	2	0	0	0	0	0	0	0	190	160	0	29	260	260	0	6	0	0	6	14	0	0	14	1610	820	770	20	1110	510	590	11		
2006	250	81	110	58	260	56	200	3	0	0	0	0	0	0	0	210	180	0	30	270	270	0	0	6	0	0	6	10	0	0	10	1720	880	820	21	1200	550	640	12	
2007	260	84	110	60	270	60	210	3	0	0	0	0	0	0	0	210	180	0	32	280	280	0	0	6	0	0	6	10	0	0	10	1830	930	870	23	1290	590	690	13	
2008	270	87	120	62																																				

Table 2 Interstate freight movements (kilotonnes) between States and Territories, 1972–2031 (continued)

Year	SA-ACT			ACT-SA			SA-NT			NT-SA			SA-TAS			TAS-SA			WA-ACT			ACT-WA			WA-NT			NT-WA										
	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea										
1972	1	0	1	0	0	0	0	0	170	34	140	4	130	49	81	0	57	0	0	57	38	0	0	38	1	0	1	0	0	0	31	11	0	20	27	5	0	22
1973	1	0	1	0	0	0	0	0	160	41	120	2	130	59	74	0	48	0	0	48	24	0	0	24	2	0	2	0	0	0	34	15	0	20	29	7	2	20
1974	2	0	2	0	0	0	0	0	150	47	110	0	130	67	66	0	39	0	0	39	11	0	0	11	2	0	2	0	0	0	37	18	0	19	30	8	3	19
1975	2	0	2	0	0	0	0	0	140	49	90	0	130	71	59	0	52	0	0	52	14	0	0	14	3	0	3	0	0	0	39	19	0	19	35	9	5	21
1976	2	0	2	0	0	0	0	0	130	55	70	0	130	79	51	0	65	0	0	65	18	0	0	18	3	0	3	0	0	0	42	23	0	19	41	11	6	24
1977	2	0	2	0	0	0	0	0	150	57	90	0	140	82	59	0	58	0	0	58	23	0	0	23	3	0	3	0	0	0	43	25	0	19	40	12	6	22
1978	2	0	2	0	0	0	0	0	160	58	100	0	150	83	67	0	52	0	0	52	29	0	0	29	3	0	3	0	0	0	43	25	0	18	38	12	6	21
1979	2	0	2	0	0	0	0	0	180	62	120	0	160	90	74	0	46	0	0	46	35	0	0	35	2	0	2	0	0	0	46	28	0	18	38	13	5	19
1980	2	0	2	0	0	0	0	0	200	69	130	0	180	100	82	0	40	0	0	40	40	0	0	40	2	0	2	0	0	0	51	33	0	18	39	16	5	18
1981	2	0	2	0	0	0	0	0	200	73	130	0	190	110	82	0	34	0	0	34	46	0	0	46	2	0	2	0	0	0	54	36	0	18	38	17	5	17
1982	2	0	2	0	0	0	0	0	200	77	120	0	190	110	75	0	28	0	0	28	52	0	0	52	2	0	2	0	0	0	57	40	0	17	39	19	4	15
1983	2	0	2	0	0	0	0	0	190	71	110	0	170	100	68	0	22	0	0	22	58	0	0	58	2	0	2	0	0	0	52	35	0	17	34	17	4	14
1984	2	0	2	0	0	0	0	0	210	84	130	0	200	120	81	0	66	0	0	66	54	0	0	54	2	0	2	0	0	0	65	46	0	19	28	21	5	2
1985	2	0	2	0	0	0	0	0	210	86	120	0	200	130	77	0	55	0	0	55	23	0	0	23	2	0	2	0	0	0	65	48	0	17	29	22	4	2
1986	2	0	2	0	0	0	0	0	210	94	110	1	210	140	70	0	42	0	0	42	1	0	0	1	3	0	3	0	0	0	77	55	0	22	33	26	4	3
1987	1	0	1	0	0	0	0	0	230	96	140	0	220	140	84	0	36	0	0	36	23	0	0	23	2	0	2	0	0	0	78	56	0	22	32	27	4	2
1988	1	0	1	0	0	0	0	0	260	100	160	0	250	150	97	0	36	0	0	36	27	0	0	27	1	0	1	0	0	0	82	65	0	17	37	31	4	2
1989	1	0	1	0	0	0	0	0	280	110	170	0	270	170	100	0	1	0	0	1	16	0	0	16	1	0	1	0	0	0	92	73	0	19	41	34	4	3
1990	1	0	1	0	0	0	0	0	300	120	180	0	280	170	110	0	1	0	0	1	1	0	0	1	1	0	1	0	0	0	110	78	0	28	42	37	3	2
1991	1	0	1	0	0	0	0	0	310	120	190	0	290	180	120	0	1	0	0	1	4	0	0	4	1	0	1	0	0	0	88	79	0	9	43	37	3	3
1992	1	0	1	0	0	0	0	0	320	120	200	0	300	180	120	0	1	0	0	1	16	0	0	16	1	0	1	0	0	0	91	81	0	10	47	38	3	6
1993	0	0	0	0	0	0	0	0	360	130	230	0	320	190	130	0	1	0	0	1	12	0	0	12	0	0	0	0	0	0	100	90	0	11	49	42	3	4
1994	0	0	0	0	0	0	0	0	390	140	260	0	340	200	140	0	1	0	0	1	2	0	0	2	0	0	0	0	0	0	120	97	0	21	53	45	3	5
1995	0	0	0	0	0	0	0	0	430	140	290	0	360	210	150	0	1	0	0	1	17	0	0	17	0	0	0	0	0	0	120	100	0	18	55	49	3	3
1996	0	0	0	0	0	0	0	0	450	150	290	0	390	230	160	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0	140	120	0	17	61	55	3	2
1997	0	0	0	0	0	0	0	0	470	160	290	14	380	240	140	0	11	0	0	11	1	0	0	1	0	0	0	0	0	0	130	130	0	0	61	61	0	0
1998	0	0	0	0	0	0	0	0	450	170	270	0	450	260	190	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0	160	150	0	16	110	67	0	45
1999	0	0	0	0	0	0	0	0	450	190	260	0	440	280	170	0	1	0	0	1	5	0	0	5	0	0	0	0	0	0	180	160	0	20	79	75	0	4
2000	0	0	0	0	0	0	0	0	480	200	280	0	480	290	190	0	1	0	0	1	2	0	0	2	0	0	0	0	0	0	190	180	0	11	85	82	0	3
2001	0	0	0	0	0	0	0	0	510	200	310	0	510	300	200	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0	200	190	0	12	91	86	0	5
2002	0	0	0	0	0	0	0	0	550	210	330	3	540	320	220	0	2	0	0	2	16	0	0	16	0	0	0	0	0	0	210	200	0	11	97	93	0	5
2003	0	0	0	0	0	0	0	0	580	220	350	0	570	330	240	0	1	0	0	1	39	0	0	39	0	0	0	0	0	0	230	220	0	14	110	99	0	6
2004	0	0	0	0	0	0	0	0	610	230	380	0	610	350	260	0	1	0	0	1	6	0	0	6	0	0	0	0	0	0	250	230	0	17	200	110	0	89
2005	0	0	0	0	0	0	0	0	640	240	400	0	630	360	260	0	1	0	0	1	9	0	0	9	0	0	0	0	0	0	260	250	0	9	120	110	0	3
2006	0	0	0	0	0	0	0	0	660	250	410	0	650	370	280	0	1	0	0	1	10	0	0	10	0	0	0	0	0	0	270	260	0	10	120	110	0	3
2007	0	0	0	0	0	0	0	0	680	260	430	0	680	390	290	0	1	0	0	1	10	0	0	10	0	0	0	0	0	0	280	270	0	10	120	120	0	3
2008	0	0	0	0	0	0	0	0	710	270	440	0	700	400	300	0	1	0	0	1	10	0	0	10	0	0	0	0	0	0	300	290	0	10	130	130	0	3
2009	0	0	0	0	0	0	0	0	740	270	460	0	730	420	310	0	1	0	0	1	10	0	0	10	0	0	0	0	0	0	310	300	0	11	140	130	0	3
2010	0	0	0	0	0	0	0	0	770	280	480	0	770	440	330	0	1	0</td																				

Table 2 Interstate freight movements (kilotonnes) between States and Territories, 1972-2031 (continued)

Notes: From 1972 to 2005, actual estimates; from 2006 to 2031, forecasts: road and rail are total (bulk plus non-bulk), shipping is non-bulk only.

Numbers from zero to 100 have not been rounded, while those above 100 are rounded to the nearest 10.

Numbers from zero to 100 have not been rounded, while those above 100 are rounded to the nearest 10.

Distance (km) 3211 3488 4393 4841 4393 4841

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