12 MONTHS ENDED 31 OCTOBER 2006 9208.0

SURVEY OF MOTOR VEHICLE USE

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) FRI 19 OCT 2007

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INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

NOTES

ABOUT THIS PUBLICATION

This publication presents estimates from the 2006 Survey of Motor Vehicle Use (SMVU). It contains statistics on passenger vehicle, motor cycle, truck and bus use for characteristics such as distance travelled, tonne-kilometres and fuel consumption.

The data were collected in four quarterly sample surveys conducted by the Australian Bureau of Statistics (ABS) over the period 1 November 2005 to 31 October 2006.

COMPARISONS WITH PREVIOUS SURVEY RESULTS

This survey has been designed to provide a measure of total distance travelled and tonne-kilometres for each state/territory of registration by type of vehicle. While comparisons are made between 2006 survey results and earlier iterations of the SMVU, the survey has not been designed to provide accurate estimates of change.

Care should be taken in drawing inferences from changes in data over time as movements may be subject to high relative standard errors and the resulting estimates of movements may not be considered statistically significant. See Explanatory Notes paragraph 14.

Additional information about the reliability of the level and movement estimates is given in the Technical Note.

Peter Harper
Acting Australian Statistician

ABBREVIATIONS

'000	thousand
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
ASGC	Australian Standard Geographical Classification
ATFCC	Australian Transport Freight Commodity Classification
Aust.	Australia
CNG	compressed natural gas
GCM	gross combination mass
GVM	gross vehicle mass
km	kilometre
LPG	liquefied petroleum gas
mill.	million
no.	number
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
RSE	relative standard error
SA	South Australia
SE	standard error
Tas.	Tasmania
Vic.	Victoria
WA	Western Australia

SUMMARY OF FINDINGS

NUMBER OF VEHICLES

In the 12 months ended 31 October 2006 there were an estimated 14.4 million vehicles registered in Australia.

Passenger vehicles (78.5%) made up the largest group of registered vehicles in 2006, followed by freight vehicles (17.7%). The remainder (3.8%) comprised buses, motor cycles and non-freight carrying trucks. Of the freight vehicles, 82.0% were light commercial vehicles, 15.2% were rigid trucks and 2.7% were articulated trucks.

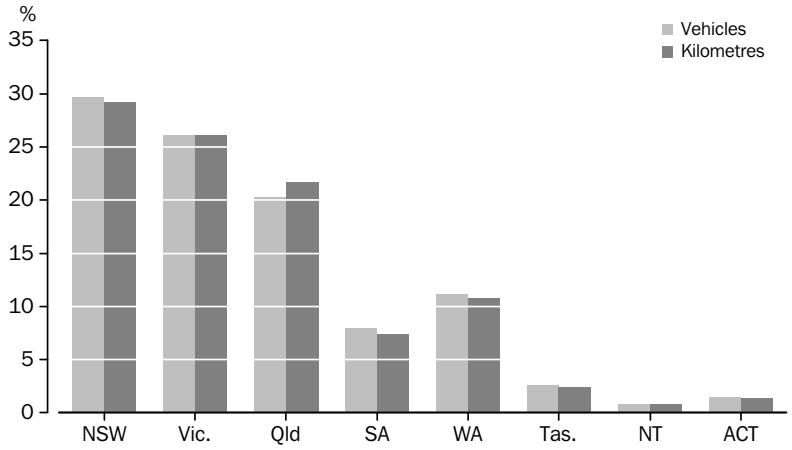
The 14.4 million vehicles represented an increase of 1.5 million vehicles (11.7%) compared with the 12 months ended 31 October 2002.

KILOMETRES TRAVELLED

Motor vehicles in Australia travelled an estimated 209,405 million kilometres in the 12 months ended 31 October 2006. While the number of vehicles increased by 11.7% compared with the 12 months ended 31 October 2002, the distance travelled by these vehicles only increased by 8.9% over this time.

The state/territory proportion of total kilometres travelled is closely related to the number of registered vehicles in each state/territory. New South Wales had the largest share of total kilometres travelled (29.3%) and the largest number of registered vehicles.

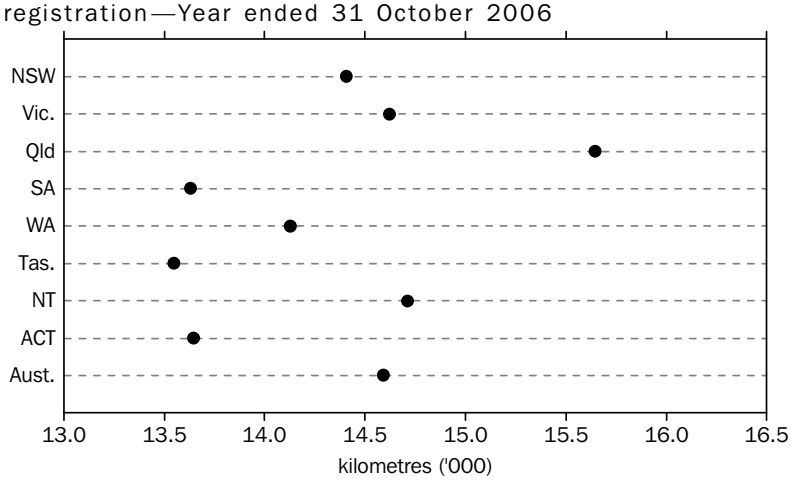
PROPORTION OF VEHICLES AND TOTAL KILOMETRES TRAVELLED, State/territory of registration—Year ended 31 October 2006



Motor vehicles registered in Australia travelled an average of 14,600 kilometres per vehicle in the 12 months ended 31 October 2006. Queensland (15,600 kilometres) and the Northern Territory (14,700 kilometres) were above the national average, while vehicles registered in Tasmania travelled the least number of average kilometres (13,500). Of all vehicle types, articulated trucks had the highest average kilometres (88,300).

KILOMETRES TRAVELLED *continued*

AVERAGE KILOMETRES TRAVELLED, State/territory of registration—Year ended 31 October 2006



Passenger vehicles accounted for 74.6% of the total distance travelled in the 12 months ended 31 October 2006. This represents a slight decrease compared with the proportion travelled by passenger vehicles in the 12 months ended 31 October 2002 (75.3%).

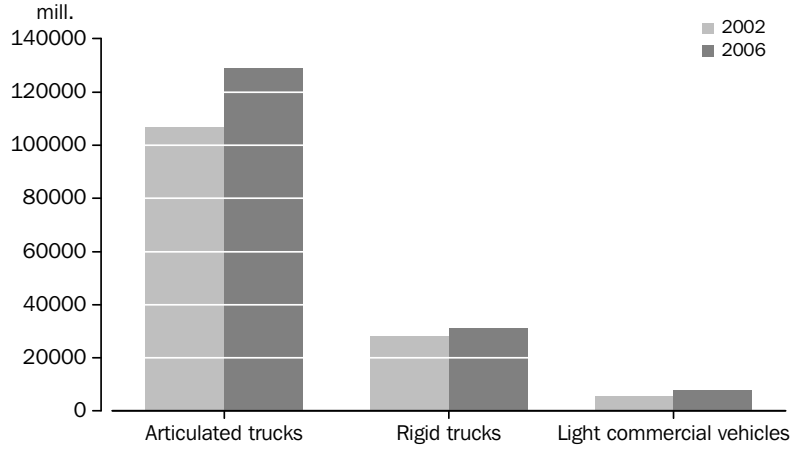
Personal and other use accounted for 51.6% of the total kilometres travelled by passenger vehicles in Australia during the 12 months ended 31 October 2006. Travel to and from work (29.3%) and business use (19.1%) accounted for the remaining kilometres travelled by passenger vehicles.

Freight carrying vehicles accounted for 49,401 million kilometres travelled (23.6%) in the 12 months ended 31 October 2006. Of this, light commercial vehicles accounted for 71.3% of the kilometres travelled, rigid trucks 16.3%, and articulated trucks 12.5%.

TONNE-KILOMETRES

Freight vehicles in Australia travelled an estimated 167,935 million tonne-kilometres in the 12 months ended 31 October 2006. This is an increase of 26,997 million tonne-kilometres (19.2%) since the 12 months ended 31 October 2002. Over this period, total tonne-kilometres for light commercial vehicles increased 40.7% while articulated trucks increased 20.6% and rigid trucks 9.4%.

TOTAL TONNES-KILOMETRES TRAVELLED, Type of vehicle—Years ended 31 October 2002 and 31 October 2006



TONNE-KILOMETRES *continued*

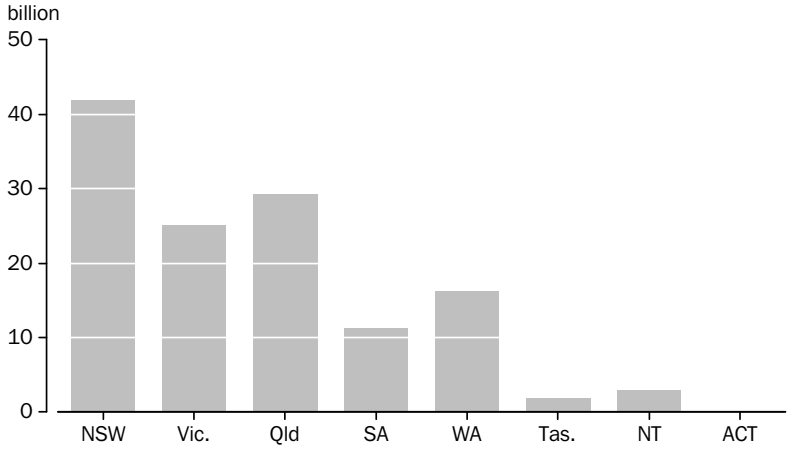
Articulated trucks accounted for 76.8% of the total freight vehicle tonne-kilometres travelled in the 12 months ended 31 October 2006. Rigid trucks accounted for 18.5% and light commercial vehicles for 4.7%.

Articulated trucks each travelled an average of 2.0 million tonne-kilometres. In comparison, rigid trucks and light commercial vehicles travelled an average of 93,700 and 6,800 tonne-kilometres respectively in the 12 months ended 31 October 2006.

In the 12 months ended 31 October 2006, articulated trucks of a Gross Combination Mass (GCM) over 40 tonnes travelled 123,272 million tonne-kilometres (or 95.5%) of the total 129,014 million tonne-kilometres travelled by all articulated trucks.

There were 129,014 tonne-kilometres travelled by articulated trucks in the 12 months ended 31 October 2006. The most tonne-kilometres were travelled in New South Wales (41,923 million), followed by Queensland with 29,362 million tonne-kilometres.

TOTAL TONNE-KILOMETRES TRAVELLED BY ARTICULATED TRUCKS, State of operation—Year ended 31 October 2006



FUEL CONSUMPTION

Registered motor vehicles in Australia consumed 28,898 million litres of fuel in the 12 months ended 31 October 2006. Of the total fuel consumed by motor vehicles in this period, 65.8% was petrol and 29.8% was diesel.

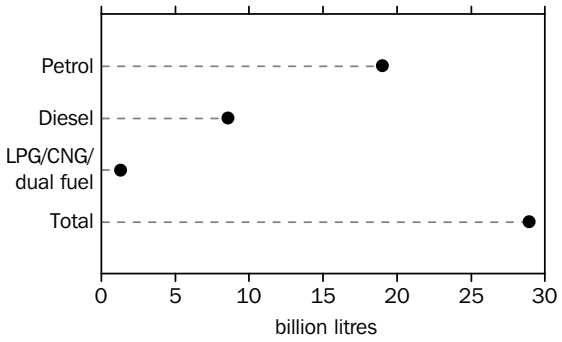
Passenger vehicles used 16,299 million litres of petrol in the 12 months ended 31 October 2006. This was 91.4% of all fuel used by passenger vehicles.

A total of 5,744 million litres of diesel was used by articulated and rigid trucks. This was 66.6% of all diesel used. Light commercial vehicles used 1,634 million litres which was 19.0% of all diesel.

FUEL CONSUMPTION

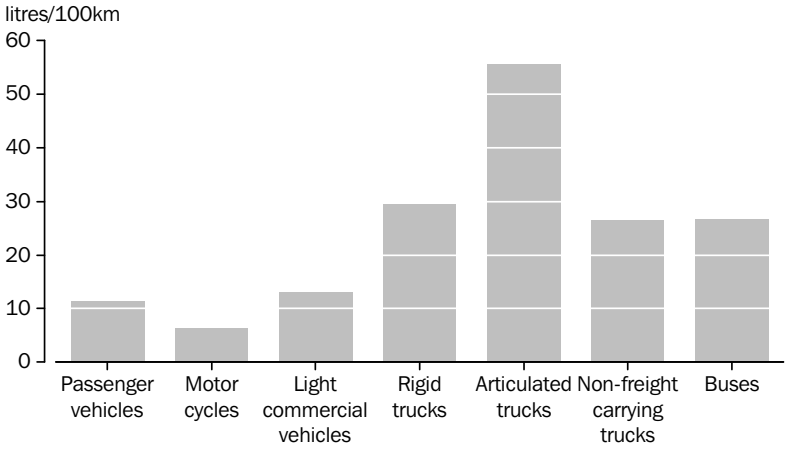
continued

TOTAL FUEL CONSUMPTION, Type of fuel—Year ended 31 October 2006



The average rate of fuel consumption for all motor vehicles in the 12 months ended 31 October 2006 was 13.8 litres per 100 kilometres. Articulated trucks had the highest average fuel consumption with 55.6 litres per 100 kilometres.

AVERAGE FUEL CONSUMPTION, Type of vehicle—Year ended 31 October 2006



LIST OF TABLES

1 SUMMARY OF MOTOR VEHICLE USE, Type of vehicle

	2002	2003	2004	2005	2006
TOTAL KILOMETRES TRAVELLED *(million)*					
Passenger vehicles	144 676	151 743	147 728	155 068	156 184
Motor cycles	1 681	1 376	1 478	1 429	1 641
Light commercial vehicles	31 349	32 671	34 007	33 764	35 210
Rigid trucks	7 080	7 768	7 639	7 671	8 040
Articulated trucks	5 425	5 841	6 013	6 308	6 151
Non-freight carrying trucks	224	203	221	^ 286	^ 261
Buses	1 775	1 893	1 968	1 856	1 917
Total	**192 209**	**201 497**	**199 055**	**206 383**	**209 405**
NUMBER OF VEHICLES(a) *(no.)*					
Passenger vehicles	10 194 637	10 415 165	10 654 328	11 010 506	11 273 219
Motor cycles	367 258	378 475	392 648	421 549	458 169
Light commercial vehicles	1 810 071	1 893 122	1 940 180	1 996 269	2 081 738
Rigid trucks	341 651	346 538	358 704	366 875	386 626
Articulated trucks	61 519	62 982	66 197	68 509	69 696
Non-freight carrying trucks	17 504	17 912	17 616	20 304	19 971
Buses	56 754	60 033	61 728	62 350	63 177
Total	**12 849 393**	**13 174 227**	**13 491 401**	**13 946 362**	**14 352 595**
AVERAGE KILOMETRES TRAVELLED(b) *('000)*					
Passenger vehicles	14.2	14.6	13.9	14.1	13.9
Motor cycles	4.6	3.6	3.8	3.4	3.6
Light commercial vehicles	17.3	17.3	17.5	16.9	16.9
Rigid trucks	20.7	22.4	21.3	20.9	20.8
Articulated trucks	88.2	92.7	90.8	92.1	88.3
Non-freight carrying trucks	12.8	11.4	12.5	14.1	13.1
Buses	31.3	31.5	31.9	29.8	30.3
Total	**15.0**	**15.3**	**14.8**	**14.8**	**14.6**
TOTAL FUEL CONSUMPTION *(million litres)*					
Passenger vehicles	16 401	17 282	16 937	18 144	17 831
Motor cycles	100	83	^ 92	83	^ 105
Light commercial vehicles	4 145	4 275	4 471	4 484	4 580
Rigid trucks	2 041	2 185	2 123	2 234	2 382
Articulated trucks	2 922	3 164	3 305	3 452	3 417
Non-freight carrying trucks	58	52	53	65	^ 69
Buses	497	523	524	506	514
Total	**26 164**	**27 564**	**27 505**	**28 967**	**28 898**
AVERAGE RATE OF FUEL CONSUMPTION(c) *(litres per 100 kilometres)*					
Passenger vehicles	11.3	11.4	11.5	11.7	11.4
Motor cycles	6.0	6.0	6.3	5.8	6.4
Light commercial vehicles	13.2	13.1	13.1	13.3	13.0
Rigid trucks	28.8	28.1	27.8	29.1	29.6
Articulated trucks	53.9	54.2	55.0	54.7	55.6
Non-freight carrying trucks	26.0	25.7	24.0	22.7	26.4
Buses	28.0	27.6	26.6	27.3	26.8
Total	**13.6**	**13.7**	**13.8**	**14.0**	**13.8**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) The average number of vehicles registered for the 12 months. Includes registered vehicles that did not travel during the reference period.

(b) Calculated using average number of registered vehicles. Includes registered vehicles that did not travel during the reference period.

(c) Calculated using the total fuel consumption divided by the total kilometres travelled.

SUMMARY OF FREIGHT VEHICLE USE, Type of vehicle

	2002	2003	2004	2005	2006
TOTAL LADEN BUSINESS KILOMETRES TRAVELLED *(million)*					
Light commercial vehicles	14 054	15 346	15 844	15 537	16 276
Rigid trucks	4 830	5 425	5 322	5 169	5 596
Articulated trucks	4 012	4 399	4 367	4 777	4 604
Total freight vehicles	**22 896**	**25 171**	**25 533**	**25 483**	**26 477**
AVERAGE LADEN BUSINESS KILOMETRES TRAVELLED(a) *('000)*					
Light commercial vehicles	14.0	14.9	14.4	13.5	14.1
Rigid trucks	16.2	17.6	16.8	16.8	16.9
Articulated trucks	70.4	75.9	71.4	75.9	71.9
Total freight vehicles	**16.8**	**18.0**	**17.2**	**16.8**	**17.1**
TOTAL TONNE-KILOMETRES TRAVELLED *(million)*					
Light commercial vehicles	5 624	6 710	6 634	7 308	7 914
Rigid trucks	28 337	30 411	29 752	30 160	31 006
Articulated trucks	106 977	115 656	121 282	126 926	129 014
Total freight vehicles	**140 938**	**152 777**	**157 668**	**164 394**	**167 935**
AVERAGE TONNE-KILOMETRES TRAVELLED(b) *('000)*					
Light commercial vehicles	5.6	6.5	6.0	6.4	6.8
Rigid trucks	95.1	98.9	93.7	98.0	93.7
Articulated trucks	1 876.3	1 996.7	1 983.3	2 015.9	2 014.9
Total freight vehicles	**103.5**	**109.2**	**106.4**	**108.2**	**108.2**
TOTAL TONNES CARRIED *(million)*					
Light commercial vehicles	115	121	120	136	151
Rigid trucks	802	707	807	938	881
Articulated trucks	747	725	769	682	812
Total freight vehicles	**1 664**	**1 553**	**1 696**	**1 756**	**1 844**
AVERAGE LOAD CARRIED PER TRIP(c) *(kilograms)*					
Light commercial vehicles	353	400	362	423	460
Rigid trucks	6 130	5 773	6 068	6 415	5 624
Articulated trucks	23 749	24 685	23 921	23 872	24 112
Total freight vehicles	**3 404**	**3 411**	**3 421**	**3 543**	**3 555**

(a) Calculated using the total laden business kilometres travelled divided by the number of vehicles that travelled laden business kilometres.

(b) Calculated using the total tonne-kilometres travelled divided by the number of vehicles that travelled tonne-killometres.

(c) Calculated using the total load carried divided by the total number of laden trips.

3 SUMMARY OF MOTOR VEHICLE USE, State/territory of registration

	2002	2003	2004	2005	2006
TOTAL KILOMETRES TRAVELLED *(million)*					
New South Wales	60 792	62 125	58 875	63 717	61 400
Victoria	51 459	55 107	52 583	51 952	54 698
Queensland	36 690	39 082	41 643	44 526	45 431
South Australia	14 855	14 963	15 241	14 533	15 535
Western Australia	19 160	20 810	21 324	21 647	22 616
Tasmania	4 433	4 639	4 561	5 302	5 065
Northern Territory	1 712	1 573	1 594	1 603	1 647
Australian Capital Territory	3 108	3 199	3 234	3 104	3 014
Australia	**192 209**	**201 497**	**199 055**	**206 383**	**209 405**
NUMBER OF VEHICLES(a) *(no.)*					
New South Wales	3 859 620	3 954 303	4 059 983	4 193 362	4 261 321
Victoria	3 442 573	3 502 517	3 538 822	3 650 826	3 740 570
Queensland	2 459 307	2 543 696	2 665 200	2 764 824	2 903 610
South Australia	1 051 720	1 075 855	1 082 691	1 107 910	1 139 681
Western Australia	1 392 316	1 445 390	1 471 497	1 542 199	1 600 823
Tasmania	334 259	336 651	350 976	360 238	373 797
Northern Territory	103 155	103 743	106 651	109 968	111 967
Australian Capital Territory	206 444	212 072	215 581	217 036	220 827
Australia	**12 849 393**	**13 174 227**	**13 491 401**	**13 946 362**	**14 352 595**
AVERAGE KILOMETRES TRAVELLED(b) *('000)*					
New South Wales	15.8	15.7	14.5	15.2	14.4
Victoria	14.9	15.7	14.9	14.2	14.6
Queensland	14.9	15.4	15.6	16.1	15.6
South Australia	14.1	13.9	14.1	13.1	13.6
Western Australia	13.8	14.4	14.5	14.0	14.1
Tasmania	13.3	13.8	13.0	14.7	13.5
Northern Territory	16.6	15.2	14.9	14.6	14.7
Australian Capital Territory	15.1	15.1	15.0	14.3	13.6
Australia	**15.0**	**15.3**	**14.8**	**14.8**	**14.6**

(a) The average number of vehicles registered for the 12 months. Includes registered vehicles that did not travel during the reference period.

(b) Calculated using the total kilometres travelled divided by the average number of registered vehicles. Includes registered vehicles that did not travel during the reference period.

4 MOTOR VEHICLE USE, State/territory of registration—Type of vehicle

	Passenger vehicles	*Motor cycles*	*Light commercial vehicles*	*Rigid trucks*	*Articulated trucks*	*Non-freight carrying trucks*	*Buses*	*Total*
				TOTAL KILOMETRES TRAVELLED *(million)*				
New South Wales	46 791	^ 504	9 739	2 417	1 330	*76	543	61 400
Victoria	41 994	^ 411	8 029	1 851	1 915	*75	424	54 698
Queensland	31 907	^ 364	9 073	1 968	1 587	^ 69	464	45 431
South Australia	11 841	^ 100	2 419	499	547	*13	115	15 535
Western Australia	16 588	^ 165	4 079	989	574	*15	^ 206	22 616
Tasmania	3 588	^ 42	^ 1 077	190	110	*8	50	5 065
Northern Territory	950	^ 20	480	62	^ 59	^ 4	^ 73	1 647
Australian Capital Territory	2 524	^ 36	316	65	^ 29	^ 2	^ 42	3 014
Australia	**156 184**	**1 641**	**35 210**	**8 040**	**6 151**	**^ 261**	**1 917**	**209 405**
				NUMBER OF VEHICLES(a) *(no.)*				
New South Wales	3 414 314	121 092	574 518	113 679	15 729	^ 4 085	17 904	4 261 321
Victoria	3 021 479	112 120	470 861	95 802	20 628	^ 5 603	14 078	3 740 570
Queensland	2 155 423	110 897	518 193	84 336	15 739	^ 3 898	15 124	2 903 610
South Australia	921 794	32 670	147 184	26 675	6 191	^ 1 500	3 666	1 139 681
Western Australia	1 222 163	58 961	249 878	49 883	8 928	^ 3 583	7 426	1 600 823
Tasmania	276 210	10 494	72 875	9 973	1 463	^ 975	1 806	373 797
Northern Territory	71 829	3 908	28 987	3 959	764	^ 235	2 285	111 967
Australian Capital Territory	190 007	8 027	19 242	2 320	^ 254	^ 90	888	220 827
Australia	**11 273 219**	**458 169**	**2 081 738**	**386 626**	**69 696**	**19 971**	**63 177**	**14 352 595**
				AVERAGE KILOMETRES TRAVELLED(b) *('000)*				
New South Wales	13.7	^ 4.2	17.0	21.3	84.6	^ 18.7	30.3	14.4
Victoria	13.9	^ 3.7	17.1	19.3	92.8	^ 13.4	30.1	14.6
Queensland	14.8	^ 3.3	17.5	23.3	100.8	^ 17.6	30.7	15.6
South Australia	12.8	^ 3.1	16.4	18.7	88.4	^ 8.4	31.5	13.6
Western Australia	13.6	^ 2.8	16.3	19.8	64.2	^ 4.1	^ 27.8	14.1
Tasmania	13.0	^ 4.0	^ 14.8	19.0	75.0	^ 8.4	27.7	13.5
Northern Territory	13.2	^ 5.1	16.5	15.6	77.3	^ 18.2	^ 31.9	14.7
Australian Capital Territory	13.3	^ 4.5	16.4	27.9	115.7	^ 20.8	^ 47.0	13.6
Australia	**13.9**	**3.6**	**16.9**	**20.8**	**88.3**	**13.1**	**30.3**	**14.6**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) The average number of vehicles registered for the 12 months. Includes registered vehicles that did not travel during the reference period.

(b) Calculated using the total kilometres travelled divided by the average number of registered vehicles. Includes registered vehicles that did not travel during the reference period.

5 FUEL CONSUMPTION, Type of fuel—Type of vehicle

	Passenger vehicles	*Motor cycles*	*Light commercial vehicles*	*Rigid trucks*	*Articulated trucks*	*Non-freight carrying trucks*	*Buses*	*Total*
TOTAL FUEL CONSUMPTION *(million litres)*								
Petrol	16 299	^ 105	2 532	^ 38	**—	*5	^ 32	19 010
Diesel	^ 735	—	1 634	2 329	3 415	^ 60	448	8 622
LPG/CNG/dual fuel	^ 797	**—	^ 413	*15	**2	**4	*34	^ 1 266
Total	**17 831**	**^ 105**	**4 580**	**2 382**	**3 417**	**^ 69**	**514**	**28 898**
AVERAGE RATE OF FUEL CONSUMPTION(a) *(litres per 100 kilometres)*								
Petrol	11.2	6.4	13.2	21.6	37.9	^ 27.7	16.4	11.4
Diesel	12.5	—	12.3	29.8	55.6	26.2	27.5	24.6
LPG/CNG/dual fuel	15.5	**10.0	15.0	33.6	**55.6	^ 28.4	^ 38.6	15.7
Total	**11.4**	**6.4**	**13.0**	**29.6**	**55.6**	**26.4**	**26.8**	**13.8**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) Calculated using the total fuel consumption divided by the total kilometres travelled.

AREA OF OPERATION, Type of vehicle

WITHIN STATE/TERRITORY OF REGISTRATION

	Capital city	*Other urban areas*	*Other areas*	*Total intrastate*	*Interstate*	*Australia*
TOTAL KILOMETRES TRAVELLED *(million)*						
Passenger vehicles	93 527	27 459	30 027	151 014	^ 5 170	156 184
Motor cycles	^ 820	^ 368	^ 360	1 548	*94	1 641
Light commercial vehicles	15 408	6 418	12 324	34 150	^ 1 060	35 210
Rigid trucks	4 029	1 401	2 309	7 739	^ 301	8 040
Articulated trucks	1 150	506	2 701	4 357	1 794	6 151
Non-freight carrying trucks	^ 121	^ 69	^ 67	^ 257	**5	^ 261
Buses	903	^ 356	570	1 830	^ 87	1 917
Total	**115 958**	**36 578**	**48 358**	**200 894**	**8 511**	**209 405**
AVERAGE KILOMETRES TRAVELLED (a) *('000)*						
Passenger vehicles	11.8	8.0	9.6	14.0	^ 6.3	14.4
Motor cycles	^ 4.1	^ 3.3	^ 3.0	4.3	*4.2	4.6
Light commercial vehicles	15.5	11.3	15.0	17.5	^ 9.1	17.9
Rigid trucks	23.5	15.9	16.5	22.5	^ 15.0	22.9
Articulated trucks	31.7	22.6	62.4	68.9	91.0	94.1
Non-freight carrying trucks	^ 15.5	^ 13.8	^ 8.5	13.9	**11.5	14.1
Buses	26.1	^ 20.9	24.7	30.0	^ 17.3	31.0
Total	**12.4**	**8.7**	**11.3**	**14.8**	**8.5**	**15.3**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Average distance travelled for registered vehicles which were used. Excludes registered vehicles that did not travel during the reference period.

7 AREA OF OPERATION, State/territory of registration

	WITHIN STATE/TERRITORY OF REGISTRATION					
	Capital city	*Other urban areas*	*Other areas*	*Total intrastate*	*Interstate*	*Australia*
	TOTAL KILOMETRES TRAVELLED *(million)*					
New South Wales	34 272	^ 12 837	12 746	59 856	^ 1 544	61 400
Victoria	32 867	^ 7 474	11 568	51 910	^ 2 788	54 698
Queensland	18 552	12 958	^ 11 742	43 253	^ 2 178	45 431
South Australia	9 744	—	4 945	14 689	^ 846	15 535
Western Australia	15 507	^ 1 750	4 977	22 235	*381	22 616
Tasmania	1 686	1 557	1 758	5 002	*63	5 065
Northern Territory	891	—	622	1 513	^ 134	1 647
Australian Capital Territory	2 437	—	—	2 437	^ 577	3 014
Australia	**115 958**	**36 578**	**48 358**	**200 894**	**8 511**	**209 405**
	AVERAGE KILOMETRES TRAVELLED (a) *('000)*					
New South Wales	12.7	9.8	11.7	14.5	^ 6.0	14.8
Victoria	12.4	^ 7.8	10.2	14.8	^ 10.5	15.5
Queensland	11.9	8.6	12.4	15.7	^ 8.1	16.4
South Australia	11.9	—	10.7	13.7	^ 11.7	14.4
Western Australia	13.1	^ 6.3	11.7	15.2	*11.3	15.2
Tasmania	9.3	8.8	10.6	14.4	*13.6	14.5
Northern Territory	12.2	—	13.3	14.9	^ 16.9	15.5
Australian Capital Territory	11.5	—	—	11.5	^ 5.9	14.0
Australia	**12.4**	**8.7**	**11.3**	**14.8**	**8.5**	**15.3**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Average distance travelled for registered vehicles which were used. Excludes registered vehicles that did not travel during the reference period.

	BUSINESS					
	Laden	*Unladen*	*All business use*(a)	*To and from work*	*Personal and other*	*Total*
TOTAL KILOMETRES TRAVELLED *(million)*						
Passenger vehicles	—	—	29 818	45 776	80 590	156 184
Motor cycles	—	—	*212	^474	955	1 641
Light commercial vehicles	16 276	6 028	22 304	6 106	6 800	35 210
Rigid trucks	5 596	2 177	7 773	^151	^116	8 040
Articulated trucks	4 604	1 538	6 143	^5	**3	6 151
Non-freight carrying trucks	—	—	^260	**1	**—	^261
Buses	—	—	1 799	*22	^97	1 917
Total	**26 477**	**9 743**	**68 309**	**52 536**	**88 560**	**209 405**
AVERAGE KILOMETRES TRAVELLED(b) ***('000)***						
Passenger vehicles	—	—	9.1	8.1	8.2	14.4
Motor cycles	—	—	^4.3	^4.4	3.1	4.6
Light commercial vehicles	14.1	8.3	17.9	8.1	6.7	17.9
Rigid trucks	16.9	8.6	23.3	^5.1	^3.8	22.9
Articulated trucks	71.9	28.1	94.7	^4.4	**3.6	94.1
Non-freight carrying trucks	—	—	14.3	*2.1	**0.6	14.1
Buses	—	—	31.2	^5.7	^12.5	31.0
Total	**17.1**	**9.4**	**13.5**	**8.0**	**7.9**	**15.3**

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* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) Including the business travel of non-freight carrying vehicles.

(b) Average distance travelled for registered vehicles which were used. Excludes registered vehicles that did not travel during the reference period.

	BUSINESS					
	Laden	*Unladen*	*All business use*(a)	*To and from work*	*Personal and other*	*Total*
TOTAL KILOMETRES TRAVELLED *(million)*						
New South Wales	6 634	2 841	19 038	15 062	27 300	61 400
Victoria	6 547	2 336	17 469	14 626	22 603	54 698
Queensland	7 288	2 098	16 601	^ 11 587	17 242	45 431
South Australia	1 964	774	5 164	3 650	6 721	15 535
Western Australia	3 039	^ 1 226	7 200	^ 5 224	10 191	22 616
Tasmania	486	282	1 311	^ 1 295	2 459	5 065
Northern Territory	288	^ 113	760	^ 356	531	1 647
Australian Capital Territory	231	^ 72	^ 767	^ 734	1 512	3 014
Australia	**26 477**	**9 743**	**68 309**	**52 536**	**88 560**	**209 405**
AVERAGE KILOMETRES TRAVELLED(b) *('000)*						
New South Wales	14.7	8.8	12.9	7.6	7.9	14.8
Victoria	18.2	9.7	13.9	8.4	7.6	15.5
Queensland	19.7	10.2	14.2	9.2	8.0	16.4
South Australia	15.3	8.4	12.8	6.7	7.8	14.4
Western Australia	17.4	9.8	13.7	7.5	8.4	15.2
Tasmania	12.8	10.5	12.9	8.4	8.4	14.5
Northern Territory	16.1	^ 9.5	15.3	6.4	7.1	15.5
Australian Capital Territory	17.9	^ 9.7	^ 12.0	6.2	8.2	14.0
Australia	**17.1**	**9.4**	**13.5**	**8.0**	**7.9**	**15.3**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Including the business travel of non-freight carrying vehicles.

(b) Average distance travelled for registered vehicles which were used. Excludes registered vehicles that did not travel during the reference period.

10 BUSINESS KILOMETRES, State/territory of registration—Type of vehicle

	Passenger vehicles	*Motor cycles*	*Light commercial vehicles*	*Rigid trucks*	*Articulated trucks*	*Non-freight carrying trucks*	*Buses*	*Total*
				TOTAL BUSINESS KILOMETRES TRAVELLED *(million)*				
New South Wales	^ 8 915	*43	5 827	2 322	1 327	*75	529	19 038
Victoria	^ 8 029	*76	5 164	1 807	1 913	*75	405	17 469
Queensland	^ 6 665	**56	5 913	1 888	1 585	^ 68	425	16 601
South Australia	^ 2 292	*12	1 710	481	547	*13	110	5 164
Western Australia	^ 2 725	*14	2 725	967	573	*14	^ 181	7 200
Tasmania	^ 484	*3	^ 473	185	109	*8	48	1 311
Northern Territory	^ 292	^ 3	^ 282	61	^ 59	^ 4	^ 59	760
Australian Capital Territory	^ 417	*5	^ 211	63	^ 29	^ 2	^ 40	^ 767
Australia	**29 818**	***212**	**22 304**	**7 773**	**6 143**	**^ 260**	**1 799**	**68 309**
				AVERAGE BUSINESS KILOMETRES TRAVELLED (a) *('000)*				
New South Wales	^ 9.2	*3.5	16.3	22.8	89.6	^ 20.0	31.2	12.9
Victoria	^ 9.5	*5.2	18.5	22.4	98.8	^ 14.4	30.1	13.9
Queensland	^ 8.9	**7.8	19.7	25.6	107.1	^ 18.1	31.8	14.2
South Australia	^ 8.9	*2.4	16.0	20.7	92.9	^ 9.9	32.8	12.8
Western Australia	^ 8.6	*1.8	18.9	23.6	73.8	^ 4.9	^ 29.3	13.7
Tasmania	^ 8.3	*4.1	15.3	22.5	84.9	^ 8.8	30.0	12.9
Northern Territory	^ 10.8	^ 5.7	18.1	17.4	82.5	^ 19.6	^ 30.3	15.3
Australian Capital Territory	^ 8.8	*3.0	18.8	29.0	121.4	^ 23.4	^ 47.8	^ 12.0
Australia	**9.1**	**^ 4.3**	**17.9**	**23.3**	**94.7**	**14.3**	**31.2**	**13.5**

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* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Average distance travelled for registered vehicles which were used. Excludes registered vehicles that did not travel during the reference period.

11 BUSINESS KILOMETRES TRAVELLED BY FREIGHT VEHICLES, State/territory of registration

	Light commercial vehicles	*Rigid trucks*	*Articulated trucks*	*Total*
TOTAL LADEN BUSINESS KILOMETRES TRAVELLED *(million)*				
New South Wales	^ 4 020	1 650	965	6 634
Victoria	3 781	1 275	1 491	6 547
Queensland	4 676	1 401	1 212	7 288
South Australia	^ 1 219	337	409	1 964
Western Australia	^ 1 919	721	399	3 039
Tasmania	^ 293	122	71	486
Northern Territory	^ 206	44	^ 38	288
Australian Capital Territory	^ 164	47	^ 21	231
Australia	**16 276**	**5 596**	**4 604**	**26 477**
AVERAGE LADEN BUSINESS KILOMETRES TRAVELLED (a) *('000)*				
New South Wales	12.0	16.3	65.7	14.7
Victoria	14.5	16.0	78.2	18.2
Queensland	16.5	19.2	82.6	19.7
South Australia	^ 12.3	14.6	70.7	15.3
Western Australia	15.2	17.9	52.3	17.4
Tasmania	^ 10.2	15.0	55.7	12.8
Northern Territory	^ 15.1	12.6	54.2	16.1
Australian Capital Territory	^ 15.5	21.5	87.7	17.9
Australia	**14.1**	**16.9**	**71.9**	**17.1**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Calculated using the total laden business kilometres travelled divided by the number of vehicles that travelled laden business kilometres.

12 TONNE-KILOMETRES TRAVELLED BY FREIGHT VEHICLES, State/territory of registration

	Light commercial vehicles	*Rigid trucks*	*Articulated trucks*	*Total*
TOTAL TONNE-KILOMETRES TRAVELLED *(million)*				
New South Wales	^ 1 779	7 965	24 284	34 029
Victoria	^ 2 185	^ 7 509	37 639	47 334
Queensland	2 104	^ 8 185	34 246	44 535
South Australia	^ 699	^ 1 964	12 836	15 499
Western Australia	^ 830	^ 4 035	^ 16 053	^ 20 918
Tasmania	^ 125	870	1 740	2 735
Northern Territory	^ 117	^ 194	^ 1 775	^ 2 085
Australian Capital Territory	^ 75	^ 285	^ 440	800
Australia	**7 914**	**31 006**	**129 014**	**167 935**
AVERAGE TONNE-KILOMETRES TRAVELLED(a) *('000)*				
New South Wales	^ 5.3	78.8	1 654.3	75.6
Victoria	^ 8.4	^ 94.1	1 973.8	131.4
Queensland	7.4	^ 112.1	2 335.9	120.1
South Australia	^ 7.0	^ 85.3	2 220.1	120.9
Western Australia	^ 6.6	^ 100.3	^ 2 104.0	^ 119.9
Tasmania	^ 4.4	106.5	1 372.7	71.9
Northern Territory	^ 8.5	^ 55.8	^ 2 536.7	^ 116.8
Australian Capital Territory	^ 7.1	^ 130.7	1 832.7	^ 61.7
Australia	**6.8**	**93.7**	**2 014.9**	**108.2**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Calculated using the total tonne-kilometres travelled divided by the number of vehicles that travelled tonne-kilometres.

13 TONNE-KILOMETRES TRAVELLED BY FREIGHT VEHICLES, State/territory of operation

	Light commercial vehicles	*Rigid trucks*	*Articulated trucks*	*Total*
TOTAL TONNE-KILOMETRES TRAVELLED *(million)*				
New South Wales	^ 1 821	8 516	41 923	52 259
Victoria	^ 2 145	^ 7 410	25 172	34 726
Queensland	^ 2 082	^ 7 996	29 362	39 440
South Australia	^ 693	^ 1 728	11 271	13 692
Western Australia	^ 828	^ 4 032	^ 16 268	^ 21 129
Tasmania	^ 125	866	1 884	2 875
Northern Territory	^ 125	^ 201	^ 2 975	^ 3 300
Australian Capital Territory	*96	^ 258	^ 161	^ 515
Australia	**7 914**	**31 006**	**129 014**	**167 935**
AVERAGE TONNE-KILOMETRES TRAVELLED (a) *('000)*				
New South Wales	^ 5.0	77.1	1 535.2	104.0
Victoria	^ 8.0	^ 91.5	1 070.0	93.0
Queensland	7.2	^ 107.1	1 427.4	102.3
South Australia	^ 7.0	^ 75.0	1 128.0	103.3
Western Australia	^ 6.5	^ 101.1	^ 1 896.5	^ 119.9
Tasmania	^ 4.2	^ 107.5	1 071.4	73.1
Northern Territory	^ 8.4	^ 45.9	^ 2 029.9	^ 158.9
Australian Capital Territory	^ 5.9	^ 64.3	^ 131.0	^ 23.9
Australia	**6.8**	**93.7**	**2 014.9**	**108.2**

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* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) Calculated using the total tonne-kilometres travelled divided by the number of vehicles that travelled tonne-kilometres.

	8 tonnes and under	*Over 8 tonnes to 20 tonnes*	*Over 20 tonnes*	*Total*
TOTAL TONNE-KILOMETRES TRAVELLED *(million)*				
2 axles	2 427	7 641	*1 403	11 470
3 axles	—	**158	15 680	15 838
4 or more axles	—	**7	^3 690	^3 698
Total	**2 427**	**7 806**	**20 773**	**31 006**
AVERAGE TONNE-KILOMETRES TRAVELLED(b) *('000)*				
2 axles	17.5	61.2	*243.3	42.6
3 axles	—	**54.0	314.9	300.4
4 or more axles	—	*78.4	^399.5	^396.3
Total	**17.5**	**61.1**	**320.6**	**93.7**

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** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) Gross Vehicle Mass/Gross Combination Mass

(b) Calculated using the total tonne-kilometres travelled divided by the number of vehicles that travelled tonne-kilometres.

ARTICULATED TRUCK USE, Trailer configuration—GCM(a)

	30 tonnes and under	*Over 30 tonnes to 40 tonnes*	*Over 40 tonnes*	*Total*
TOTAL TONNE-KILOMETRES TRAVELLED *(million)*				
Single axle trailer	*197	—	**8	*206
Tandem axle trailer	^ 203	^ 3 225	*304	^ 3 733
Triaxle trailer	—	^ 2 064	40 705	42 769
B-Double	—	—	52 559	52 559
Road train	—	—	^ 26 538	^ 26 538
Other	—	**53	^ 3 157	^ 3 210
Total	**^ 400**	**^ 5 342**	**123 272**	**129 014**
AVERAGE TONNE-KILOMETRES TRAVELLED(b) *('000)*				
Single axle trailer	*134.5	—	**1 609.5	*139.7
Tandem axle trailer	^ 151.2	^ 439.7	*352.6	391.3
Triaxle trailer	—	^ 794.2	1 279.4	1 242.8
B-Double	—	—	4 608.4	4 608.4
Road train	—	—	^ 4 993.3	^ 4 993.3
Other	—	**239.0	^ 1 899.7	^ 1 704.3
Total	**^ 142.5**	**526.1**	**2 414.0**	**2 014.9**

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* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) Gross Combination Mass.

(b) Calculated using the total tonne-kilometres travelled divided by the number of vehicles that travelled tonne-kilometres.

	Light commercial vehicles	*Rigid trucks*	*Articulated trucks*	*Total*
TOTAL LOAD CARRIED *(million tonnes)*				
New South Wales	^ 43	226	187	456
Victoria	^ 39	^ 219	182	440
Queensland	^ 35	^ 222	188	445
South Australia	^ 12	^ 70	76	158
Western Australia	^ 15	^ 104	^ 144	263
Tasmania	^ 3	25	19	47
Northern Territory	*2	^ 7	^ 13	^ 22
Australian Capital Territory	*2	^ 8	^ 3	^ 13
Australia	**151**	**881**	**812**	**1 844**
AVERAGE LOAD CARRIED PER TRIP(a) *(kilograms)*				
New South Wales	^ 474	5 318	22 925	3 224
Victoria	476	5 595	20 460	3 396
Queensland	447	5 789	25 613	3 616
South Australia	457	^ 6 484	23 915	3 865
Western Australia	410	5 545	29 964	^ 4 429
Tasmania	423	6 368	23 682	3 787
Northern Territory	^ 502	4 514	^ 38 494	^ 3 390
Australian Capital Territory	^ 521	^ 4 993	19 166	^ 2 345
Australia	**460**	**5 624**	**24 112**	**3 555**

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(a) Calculated using the total load carried divided by the total number of laden trips.

17 FREIGHT VEHICLE USE, Commodity—Total tonnes carried (million)

	Light commercial vehicles	*Rigid trucks*	*Articulated trucks*	*Total*
Food and live animals	^ 10	^ 90	179	279
Beverages and tobacco	** 2	* 6	^ 14	^ 22
Crude materials, inedible, except fuels	^ 2	^ 355	221	578
Mineral fuels, lubricants and related materials	** 4	^ 21	^ 84	^ 110
Animal and vegetable oils, fats and waxes	**—	** 1	* 5	* 6
Chemicals and related products, not elsewhere specified	* 5	^ 9	* 21	^ 35
Manufactured goods	^ 18	^ 139	101	258
Machinery, transport equipment	* 10	^ 63	^ 56	128
Miscellaneous manufactured articles	* 6	^ 18	^ 14	^ 39
Tools of trade	70	^ 43	* 2	115
Other commodities, not elsewhere specified	^ 16	^ 125	^ 101	242
Unspecified(a)	* 7	^ 11	^ 13	^ 31
Total	**151**	**881**	**812**	**1 844**

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* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) Represents loads carried where type of commodity could not be obtained.

18 BUS USE(a), Type of bus—Type of service

	Route service	*Dedicated school bus service*	*Charter service*	*Tour service*	*Other*	*Not specified*(b)	*Total*
TOTAL KILOMETRES TRAVELLED *(million)*							
Buses with fewer than 20 seats	*39	^ 49	*99	*26	^ 398	**4	^ 616
Buses with 20 or more seats	577	327	^ 174	*100	*48	**1	1 227
Total	**616**	**377**	**^ 273**	**^ 126**	**^ 445**	***5**	**1 843**
AVERAGE KILOMETRES TRAVELLED(c) *('000)*							
Buses with fewer than 20 seats	*25.5	^ 18.0	*44.7	^ 23.8	^ 20.9	*7.5	24.5
Buses with 20 or more seats	53.5	20.0	19.0	^ 33.8	*12.0	*27.9	37.6
Total	**50.0**	**19.7**	**^ 24.0**	**^ 31.1**	**^ 19.4**	***9.4**	**31.9**

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Excluding distance travelled by buses used exclusively for private purposes.

(b) Represents travel by buses where type of service could not be obtained.

(c) Average distance travelled for registered vehicles which were used. Excludes registered vehicles that did not travel during the reference period.

19 BUS USE(a), State/territory of registration—Type of service

	Route service	*Dedicated school bus service*	*Charter service*	*Other*(b)	*Not specified*(c)	*Total*
			TOTAL KILOMETRES TRAVELLED *(million)*			
New South Wales	^150	^143	^89	^159	**1	542
Victoria	^136	^70	^71	^135	**2	412
Queensland	^147	^70	*76	^151	**—	444
South Australia	^65	^20	*9	*17	**—	112
Western Australia	^67	*49	*12	*54	—	^182
Tasmania	^15	^13	*7	*12	**—	49
Northern Territory	*9	*7	*7	^36	**2	^62
Australian Capital Territory	27	^6	*1	**8	—	^41
Australia	**616**	**377**	**^273**	**^572**	***5**	**1 843**
			AVERAGE KILOMETRES TRAVELLED(d) *('000)*			
New South Wales	^41.9	20.2	^21.5	^23.3	**4.2	31.9
Victoria	^45.8	19.7	^24.0	^21.2	**12.8	30.6
Queensland	61.1	18.1	*42.9	^22.0	**3.5	33.2
South Australia	54.1	^16.5	*15.3	^13.3	**23.8	33.3
Western Australia	54.4	^27.8	*15.5	*17.2	—	^29.4
Tasmania	^43.4	^14.6	*10.3	^23.0	3.7	30.3
Northern Territory	^75.6	^23.9	^23.1	^27.8	**16.6	31.4
Australian Capital Territory	57.4	^12.1	*11.1	*30.9	—	^48.9
Australia	**50.0**	**19.7**	**^24.0**	**21.6**	***9.4**	**31.9**

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* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) Excluding distance travelled by buses used exclusively for private purposes.

(b) Includes tour service operations.

(c) Represents travel by buses where type of service could not be obtained.

(d) Average distance travelled for registered vehicles which were used. Excludes registered vehicles that did not travel during the reference period.

EXPLANATORY NOTES

INTRODUCTION

1 This publication presents estimates from the 2006 Survey of Motor Vehicle Use (SMVU). The data were collected in four quarterly sample surveys conducted by the Australian Bureau of Statistics (ABS) over the period 1 November 2005 to 31 October 2006.

SCOPE AND FRAME

2 The scope of the survey comprises all vehicles that were registered with a motor vehicle authority for road use at some stage during the 12 months ended 31 October 2006. Not included are caravans, trailers, tractors, plant and equipment, vehicles belonging to the defence services and vehicles with diplomatic or consular plates. Where they were registered as such, vintage and veteran cars were also excluded from the survey. Unregistered vehicles are out of scope.

3 The population was identified on 31 March 2005 using information obtained from the state and territory motor vehicle registration authorities, as part of the annual ABS Motor Vehicle Census (MVC) (Cat No. 9309.0). There were 13.9 million vehicles identified at this time, an increase of 2.9% on the number registered at the same time the previous year. The population information identified is referred to as the survey frame.

METHODOLOGY

4 For the 2006 SMVU, a stratified sample of 16,000 vehicles was selected to report on vehicle use over a three-month period within the reference year 1 November 2005 to 31 October 2006. Of these, 24.8% were passenger vehicles and motor cycles, 62.1% were freight vehicles, 9.9% were buses and 3.3% were non-freight carrying vehicles. The sample size was chosen to give a suitable level of precision for estimates of total distance travelled and tonne-kilometres for each state/territory of registration by type of vehicle category.

5 The survey methodology is described as pre-advice, where owners of vehicles selected in the survey received early advice about their inclusion to encourage record keeping and minimise reliance on recall. These owners were asked to complete two mail questionnaires tailored to their vehicle type. The first, at the beginning of each quarterly survey period, asked for selected vehicle characteristics and the vehicle odometer reading. Owners were also advised that they would receive a follow up questionnaire at the end of the quarter seeking details about the use of the vehicle over the quarter and a second odometer reading. Examples of the main items requested in the second questionnaire were included with the first questionnaire. (Sample questionnaires can be found under the on-line version of the Survey's Explanatory Notes, at the ABS website).

6 When questionnaires were returned to the ABS they were checked for completeness and accuracy and, where possible, follow-up contact was made with owners to resolve reporting problems. Where contact with providers could not be made, missing items on incomplete questionnaires were filled by imputing average data from like vehicles for which data were obtained.

7 Where the selected vehicle owner had not owned the vehicle for the whole quarterly survey period, the details provided for the period of ownership were adjusted to give a three-month equivalent. Where the vehicle was deregistered during the quarterly survey period, only the use up to the date of deregistration was included.

8 In addition, adjustments were made in the estimation process to account for the use of new motor vehicles registered after the survey population was identified, as well as the re-registration of other vehicles during this time. For the 2006 SMVU, the population frame was created on 31 March 2005. More information about these adjustments is provided in paragraph 24 of the Technical Note.

9 Estimates from information reported in each quarterly collection period were produced and these were then aggregated into annual estimates relating to the use of vehicles during the period 1 November 2005 to 31 October 2006. The size of the sample is insufficient to produce reliable quarterly results.

RELIABILITY OF ESTIMATES

10 When interpreting the results of a survey it is important to take into account factors that may affect the reliability of estimates. Such factors can be classified as either survey methodology, sampling error or non-sampling error. Information on these factors is provided in the Technical Note.

COMPARISON WITH MOTOR VEHICLE CENSUS DATA

11 Survey estimates of the numbers of vehicles, by vehicle type, are not fully comparable with ABS Motor Vehicle Census data (see *Motor Vehicle Census, Australia* (cat. no. 9309.0)). The main differences are:

- survey estimates of the numbers of vehicles relate to the average number of vehicles registered for road use during the period 1 November 2005 to 31 October 2006, not to the number of vehicles registered at a specific date, as is the case for the Motor Vehicle Census.
- the characteristics of the type of vehicle identified from the survey information may differ from those recorded by the motor registries.

CONCEPT OF AVERAGES

12 Most tables in this publication include statistics presented as averages. Tables 1, 3 and 4 are summary tables and present average kilometres travelled per vehicle for all registered vehicles in scope of the survey. This includes those vehicles that travelled zero kilometres during the reference period (also known as nil use vehicles). See paragraph 27 of the Technical Note for more details on nil use vehicles. Other tables present more detailed information on actual vehicle use where the denominator used in calculating the average is limited to the estimated number of vehicles that contribute to the particular cell. In some cases a vehicle may contribute to more than one cell in a table (e.g. a bus used for route service and charter purposes) but will only be counted once in the denominator for the total.

13 As the denominators used to calculate each average are different it should be noted that the averages along a table row cannot be used to derive the total column entry for that row.

HISTORICAL COMPARISONS

14 This publication includes estimates of vehicle use for earlier years. However, it should be noted that the survey methodology was designed to produce reliable level estimates of key data items at the state by vehicle type level. The survey was not designed to produce reliable estimates of annual movements. Changes in data over time may be subject to high RSEs and hence the changes may not be statistically significant. While the analysis in this publication does make comparisons over time, the limitations as outlined above should be taken into account and care should be taken in drawing inferences from these comparisons. See paragraphs 9, 10, 11 and 12 of the Technical Note.

BILLION

15 The term 'billion' means 'thousand million' in line with Australian standards.

RELATED PUBLICATIONS AND PRODUCTS

16 Users may also wish to refer to the following publications and products which contain information relating to motor vehicles in Australia:

Motor Vehicle Census, Australia (cat. no. 9309.0) — issued annually
Sales of New Motor Vehicles, Australia (cat. no. 9314.0) — issued monthly
Sales of New Motor Vehicles, Electronic delivery (cat. no. 9314.0.55.001) — final issue May 2007

ABS DATA AVAILABLE ON REQUEST

17 As well as the statistics included in this publication, the ABS has other relevant data available on request. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

DATA QUALITY

1 When interpreting the results of a survey it is important to take into account factors that may affect the reliability of estimates. The survey methodology procedures as well as sampling and non-sampling errors should be considered. Examination of the following quality indicators will assist users in determining fitness for purpose of the Survey of Motor Vehicle Use (SMVU).

SAMPLING ERROR

2 Estimates in this publication are based on information collected for a sample of registered motor vehicles, rather than a full enumeration, and are therefore subject to sampling error. They may differ from the data that would have been produced if the information had been obtained for all registered motor vehicles. Examples of the sampling error for this publication are included in this Technical Note.

3 The sampling error associated with an estimate can be estimated from the sample results. One measure of sampling error is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of vehicles was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the data that would have been obtained if all vehicles had been included, and about 19 chances in 20 that the difference will be less than two standard errors.

4 Another measure of sampling variability is the relative standard error (RSE) which is obtained by expressing the standard error as a percentage of the estimate to which it refers. The RSE is a useful measure in that it provides an immediate indication of the percentage error likely to have occurred due to sampling. In this publication, estimates that have an estimated relative standard error between 10% and 25% are annotated with the symbol '^' . These estimates should be used with caution as they are subject to sampling variability too high for some purposes. Estimates with an RSE between 25% and 50% are annotated with the symbol '*', indicating that the estimate should be used with caution as it is subject to sampling variability too high for most practical purposes. Estimates with an RSE greater than 50% are annotated with the symbol '**' indicating that the sampling variability causes the estimates to be considered too unreliable for general use.

5 The RSEs relating to 2006 estimates contained in Table 4 of this publication are shown in the following table.

RSE OF MOTOR VEHICLE USE(a), State/territory of registration—Type of vehicle

	Passenger vehicles	*Motor cycles*	*Light commercial vehicles*	*Rigid trucks*	*Articulated trucks*	*Non-freight carrying trucks*	*Buses*	*Total*
	%	%	%	%	%	%	%	%
TOTAL KILOMETRES TRAVELLED								
New South Wales	4.8	20.4	5.1	5.6	4.9	31.8	7.5	3.7
Victoria	4.8	19.6	6.4	6.2	3.4	25.2	8.8	3.9
Queensland	5.4	23.4	5.3	5.4	3.6	18.5	8.8	4.0
South Australia	4.8	16.4	7.4	6.3	6.1	27.8	8.2	3.9
Western Australia	6.3	16.0	5.9	7.3	6.8	25.9	13.1	4.7
Tasmania	5.6	20.8	11.1	7.2	5.5	28.0	8.9	4.7
Northern Territory	5.4	14.8	7.8	6.4	10.1	21.8	12.9	3.9
Australian Capital Territory	5.5	15.3	6.6	6.3	13.9	18.6	10.8	4.7
Australia	**2.3**	**9.7**	**2.4**	**2.8**	**1.9**	**12.6**	**3.9**	**1.8**
NUMBER OF VEHICLES								
New South Wales	1.9	5.1	2.1	1.4	2.9	15.1	4.0	1.5
Victoria	1.6	3.5	2.0	3.8	1.8	12.9	4.7	1.3
Queensland	1.8	5.4	2.3	1.7	1.9	10.1	3.2	1.4
South Australia	1.5	3.3	2.1	1.6	3.4	12.7	4.5	1.2
Western Australia	2.5	2.3	3.0	1.7	2.4	10.6	7.0	2.0
Tasmania	1.9	4.8	1.7	2.4	3.2	15.1	4.4	1.4
Northern Territory	2.6	4.9	3.4	6.7	3.5	13.5	5.1	1.7
Australian Capital Territory	3.1	3.2	3.9	2.5	10.8	10.6	4.8	2.7
Australia	**0.8**	**2.1**	**1.0**	**1.1**	**1.0**	**5.5**	**1.9**	**0.6**
AVERAGE KILOMETRES TRAVELLED								
New South Wales	4.5	19.4	4.9	5.4	4.2	20.6	6.9	3.5
Victoria	4.7	19.6	6.1	6.9	3.3	19.7	8.5	3.8
Queensland	5.2	23.6	5.1	5.3	3.5	14.4	8.7	3.9
South Australia	4.6	15.9	7.1	6.2	6.1	23.9	7.7	3.7
Western Australia	5.6	15.9	5.9	7.2	6.6	23.9	12.8	4.2
Tasmania	5.5	20.1	11.1	7.2	5.5	22.5	8.0	4.6
Northern Territory	5.2	14.3	6.9	6.5	8.2	18.6	11.9	3.8
Australian Capital Territory	5.0	15.2	6.2	6.1	7.8	16.4	10.2	4.3
Australia	**2.3**	**9.3**	**2.4**	**2.8**	**1.9**	**9.6**	**3.7**	**1.8**

(a) These RSEs relate to the estimates in Table 4.

SAMPLING ERROR *continued*

6 As an example of the use of an RSE, the 2006 estimate for total kilometres travelled by all passenger vehicles registered in Australia is 156,184 million kilometres (Table 4 of the publication). The rounded RSE for this estimate is 2.3%, as shown above. Therefore, the standard error for the 2006 kilometres travelled by passenger vehicles estimate is 3,592 million kilometres (2.3% of 156,184 million kilometres). There are about two chances in three that the figure obtained if all vehicles had been included, would have been in the range 152,592 million kilometres to 159,776 million kilometres (a range of one standard error above and below the survey estimate). There are about 19 chances in 20 that the figure would have been in the range 149,000 million kilometres to 163,368 million kilometres (a range of two standard errors above and below the survey estimate).

7 It is important to note that estimates at more detailed levels than the above are subject to higher RSEs and therefore are less reliable.

8 RSEs for other key variables are shown in the following tables. The RSEs of further detailed variables can be made available on request.

RSE OF FUEL CONSUMPTION(a), Type of fuel—Type of vehicle

	Passenger vehicles	*Motor cycles*	*Light commercial vehicles*	*Rigid trucks*	*Articulated trucks*	*Non-freight carrying trucks*	*Buses*	*Total*
	%	%	%	%	%	%	%	%
TOTAL FUEL CONSUMPTION								
Petrol	2.6	10.7	4.4	21.0	71.6	49.0	16.6	2.3
Diesel	19.4	—	5.6	3.3	2.0	14.1	4.8	2.3
LPG/CNG/dual fuel	17.4	68.7	15.2	37.5	99.6	54.8	32.1	12.1
Total	**2.5**	**10.7**	**2.5**	**3.3**	**2.0**	**12.6**	**4.3**	**1.6**
AVERAGE RATE OF FUEL CONSUMPTION								
Petrol	0.9	3.6	1.1	6.5	4.9	20.9	5.0	0.8
Diesel	4.1	—	1.4	1.7	0.6	7.7	2.8	2.0
LPG/CNG/dual fuel	5.4	100.0	6.0	9.7	100.0	23.4	20.0	4.1
Total	**0.9**	**3.6**	**0.9**	**1.7**	**0.6**	**6.9**	**2.8**	**0.7**

— nil or rounded to zero (including null cells)

(a) These RSEs relate to the estimates in Table 5.

SAMPLING ERROR *continued*

RSE OF FREIGHT VEHICLES(a), State/territory of operation

	Light commercial vehicles	*Rigid trucks*	*Articulated trucks*	*Total*
	%	%	%	%
TOTAL TONNE-KILOMETRES				
New South Wales	13.5	8.3	4.2	3.5
Victoria	14.1	10.8	4.3	4.1
Queensland	10.1	12.3	7.5	6.0
South Australia	22.8	11.5	7.5	6.4
Western Australia	13.3	11.2	13.0	10.3
Tasmania	17.4	9.9	8.3	6.0
Northern Territory	16.0	12.6	24.3	22.0
Australian Capital Territory	27.1	15.5	17.2	11.2
Australia	**5.9**	**5.0**	**3.0**	**2.5**

(a) These RSEs relate to the estimates in Table 13.

SAMPLING ERROR *continued*

9 Summary tables in this publication contain estimates for earlier years. Because of cost and provider load constraints, the SMVU cannot be designed to provide accurate measures of the movements between reference periods. Care should be taken in drawing inferences from changes in data over these years.

10 The standard error for the movement can be calculated using:

$$SE(M_t) = \sqrt{(RSE(Y_{2t}) * Y_{2t}/100)^2 + (RSE(Y_{1t}) * Y_{1t}/100)^2}$$

where

Y_{1t} is an estimate of total of the variable of interest, obtained from the 1st time point

Y_{2t} is an estimate of total of the same variable of interest, obtained from the 2nd time point

M_t is an estimate of movement of the total of the variable of interest from the 1st time point to the 2nd time point, ie $M_t = Y_{2t} - Y_{1t}$

11 For total kilometres travelled by type of vehicle from the 2002 and 2006 SMVUs, the standard errors of the movements and the estimates from which they are derived are shown in the following table.

SE OF THE MOVEMENT OF TOTAL KILOMETRES TRAVELLED

	LEVEL ESTIMATES				MOVEMENT ESTIMATES	
	2002	*RSE (2002)*	*2006*	*RSE (2006)*	*Movement*	*SE (Movement)* (a)
Type of vehicle	mill.	%	mill.	%	mill.	mill.
Passenger vehicles	144 676	2.5	156 184	2.3	11 508	5 136
Motor cycles	1 681	9.1	1 641	9.7	–39	222
Light commercial vehicles	31 349	2.8	35 210	2.4	3 861	1 235
Rigid trucks	7 080	2.4	8 040	2.8	961	279
Articulated trucks	5 425	2.0	6 151	1.9	726	157
Non-freight trucks	224	9.6	261	12.6	37	39
Buses	1 775	3.6	1 917	3.9	142	98
Total	**192 209**	**1.9**	**209 405**	**1.8**	**17 196**	**5 266**

(a) Calculated on unrounded RSE estimates

12 As indicated in the table above, the estimates of movement are subject to significant sampling error and caution should be used in analysing the movements in the estimates. For example, the estimate of movement for passenger vehicles is an increase of 11,508 million kilometres and the standard error is 5,136 million kilometres, which means there are 19 chances in 20 that the true movement estimate is between an increase of 1,236 million kilometres and 21,780 million kilometres.

NON-SAMPLING ERROR

13 Non-sampling error covers the range of errors that are not caused by sampling and can occur in any statistical collection whether it is based on full enumeration or a sample. For example, non-sampling error can occur because of non-response to the statistical collection, errors or omissions in reporting by providers, definition or classification difficulties, errors in transcribing and processing data and under-coverage of the frame from which the sample was selected. If these errors are systematic (not random) then the survey results will be distorted in one direction and therefore will be unrepresentative of the target population. Systematic errors result in bias.

Response and non-response

14 An important factor that affects non-sampling error is the response rate achieved. The ABS makes all reasonable efforts to maximise response rates. Where appropriate, mail reminders and telephone follow-up are used to attempt to contact non-responding vehicle owners. Responses were received from 85% of all of the selections for 2006.

Response and non-response continued

After removing those vehicles that had been found to be deregistered or out of scope, the live response rate for the 2006 SMVU was 84%.

RESPONSE AND NON-RESPONSE BY CATEGORY

	Percentage of selections 2006
	%
Response received	
Registered vehicle	79
Unregistered vehicle(a)	5
Non-response	
Untraceable - mailing address unknown	5
Other(b)	10
Total selections	**100**

(a) Includes deregistration, out of scope and duplicates.
(b) Includes: responses that were unusable because of unresolved queries or where the vehicle was sold during the reference quarter and the reported data covered less than 14 days; non-response where no listing could be found to enable contact by telephone; and owner contacted by telephone but response still not secured.

15 Live response rates for each state and territory, and for each vehicle type, are shown in the following tables:

LIVE RESPONSE RATES, State/territory

	Response rate
	%
New South Wales	85
Victoria	83
Queensland	87
South Australia	86
Western Australia	88
Tasmania	86
Northern Territory	75
Australian Capital Territory	79
Australia	**84**

LIVE RESPONSE RATES, Type of vehicle

	Response rate
	%
Passenger vehicle	81
Motor cycles	78
Light commercial vehicles	83
Rigid trucks	85
Articulated trucks	83
Non-freight carrying trucks	87
Buses	90
Total	**84**

Response and non-response continued

16 A large non-response increases the potential magnitude of non-response bias, which occurs if the usage patterns of the non-responding vehicles differ from those of the responding vehicles. For the SMVU, it is assumed that the characteristics of non-responding vehicles including the proportion of deregistered, out of scope and nil use vehicles are the same as for responding vehicles.

Frame quality

17 The scope of the survey comprises all vehicles that were registered with a motor vehicle authority for road use at some stage during the 12 months ended 31 October 2006 (excluding caravans, trailers, tractors, plant and equipment, defence services vehicles, diplomatic or consular-plated vehicles and vintage or veteran registered vehicles). A population or survey frame of 13.9 million vehicles was identified on 31 March 2005 using information obtained from the state and territory motor vehicle registration authorities, as part of the annual ABS Motor Vehicle Census (MVC) (Cat No. 9309.0). From this frame a stratified sample of 16,000 vehicles was selected for reporting on vehicle use.

18 The responses received in the SMVU provide an indication of the quality of the frame. In 2006, the effects of duplicate vehicle registrations, vehicle de-registrations prior to frame extract, and out-of-scope vehicles on the frame was estimated to be approximately 0.1% of the total frame. This indicates the frame was reliable in terms of providing an accurate number of registered vehicles in Australia.

19 Vehicle classification anomalies arise when respondents indicate an alteration has been made to the vehicle body, resulting in a different vehicle type to that recorded on the frame. These changes can happen during the time-lag between finalising the frame and collection of SMVU data (between 7 and 19 months). Vehicle classification anomalies can also result from data supplied by state and territory vehicle registration authorities. An assessment of vehicle classification anomalies from 2006 data shows that while there was no bias towards specific states or territories, there were marked discrepancies for some vehicle types. For vehicles on the frame that were listed as non-freight carrying trucks, 17.8% were found to be other vehicle types, 15.6% of vehicles listed as buses were found to be other vehicle types and 3.2% of vehicles listed as articulated trucks were found to be other vehicle types. This issue was not significant for other vehicle types on the frame.

Imputation

20 Imputation is the process whereby a value is generated for missing data items, based on the responses for similar vehicles which were operating for the reference period. As for previous surveys, the need for imputation of unanswered items on the returned questionnaires remained quite high. This is called partial imputation.

21 Total fuel consumption can be difficult to collect, being derived from the product of total distance travelled and the average fuel consumption rate. The average fuel consumption rate can be reported directly by the respondent or derived from the respondent reporting an amount of fuel consumed and the distance travelled on that fuel (for all or part of the period). If records have not been kept during the reference period, it can be difficult for the provider to provide or reasonably estimate fuel consumption. If this is the case the fuel consumption rate is imputed from the average of 'like' responding providers.

22 Additional imputation is needed due to questionnaire non-response and is called full imputation. The tables below show the percentage contribution to the estimates from both partial and full imputation.

Imputation continued

CONTRIBUTION TO ESTIMATES FROM IMPUTATION(a), State/territory of registration

	Percentage of total kilometres travelled	*Percentage of total tonne-kilometres travelled*	*Percentage of fuel consumption*
	%	%	%
New South Wales	16	28	40
Victoria	17	35	39
Queensland	16	22	36
South Australia	17	29	37
Western Australia	14	23	41
Tasmania	15	31	43
Northern Territory	28	42	53
Australian Capital Territory	19	40	40
Australia	**16**	**28**	**39**

(a) Includes both partial and full imputation

CONTRIBUTION TO ESTIMATES FROM IMPUTATION(a), Type of vehicle

	Percentage of total kilometres travelled	*Percentage of total tonne-kilometres travelled*	*Percentage of fuel consumption*
	%	%	%
Passenger vehicles	16	. .	42
Motor cycles	25	. .	51
Light commercial vehicles	16	37	39
Rigid trucks	14	26	35
Articulated trucks	15	28	27
Non-freight carrying vehicles	12	. .	40
Buses	10	. .	19
Total	**16**	**28**	**39**

. . not applicable
(a) Includes both partial and full imputation

SURVEY PROCEDURES

23 The survey is comprised of four independent samples, with a different one used for each 3 month quarter in the overall 12 month survey period. Estimates from each of these samples are aggregated and adjusted for new motor vehicles and re-registrations of vehicles to produce an annual estimate.

Adjustments

24 The SMVU measures the use of all vehicles registered during the reference year. Because selections are taken from vehicles registered some time before the beginning of each collection period, adjustments are made to account for the change in size of the registered motor vehicle fleet since the population frame was created. For the 2006 SMVU, the frame was created on 31 March 2005. These adjustments involved two categories:

- re-registrations - older vehicles that are returning to the registered vehicle fleet after a period of de-registration, and
- new motor vehicles - vehicles which have not been previously registered.

Adjustments continued

CONTRIBUTION OF ADJUSTMENTS FOR RE-REGISTRATIONS, Australia

	PERCENTAGE OF TOTAL KILOMETRES TRAVELLED				
	SMVU 2002	*SMVU 2003*	*SMVU 2004*	*SMVU 2005*	*SMVU 2006*
	%	%	%	%	%
Type of vehicle					
Passenger vehicles	3	2	1	3	1
Motor cycles	5	6	6	4	7
Light commercial vehicles	1	2	2	1	3
Rigid trucks	3	2	4	2	4
Articulated trucks	4	4	4	4	2
Non-freight carrying vehicles	4	2	6	1	3
Buses	4	–1	—	–2	—
Total	**2**	**2**	**2**	**3**	**2**

— nil or rounded to zero (including null cells)

CONTRIBUTION OF NEW VEHICLES REGISTERED AFTER 31 MARCH

	PERCENTAGE OF TOTAL KILOMETRES TRAVELLED				
	2001	*2002*	*2003*	*2004*	*2005*
	%	%	%	%	%
Type of vehicle					
Passenger vehicles	5	9	10	10	11
Motor cycles	8	17	15	15	16
Light commercial vehicles	5	11	14	14	14
Rigid trucks	4	10	10	13	12
Articulated trucks	6	14	17	18	19
Non-freight carrying trucks	2	8	13	13	14
Buses	5	11	14	12	15
Total	**5**	**10**	**11**	**11**	**12**

25 These activities occur continuously and the adjustments are made to account for the registrations that are estimated to have been added to or removed from the registered vehicle fleet between the population frame date and the end of the reference period. The adjustment process also accounts for de-registrations. This means it is possible for the re-registration factor to be negative.

Pre-advice methodology

26 The quality of survey responses is improved by employing a pre-advice methodology. This involves vehicle owners receiving early advice about their inclusion in the survey and encourages a higher degree of record keeping. In addition, the reporting of odometer readings taken at the start and end of the survey periods (approximately three months apart) provide reliable estimates of total distance travelled without a recall bias.

Nil use

27 Some providers may report nil use for the 3 month reference period in which they were selected. Nil use vehicles are live registered vehicles that reported travelling zero kilometres during that specific reference period only. Nil use vehicles are included in the survey as their reported nil use is representative of other vehicles in the population. Vehicles may have nil use due to factors such as seasonal usage, mechanical faults or economic conditions. Where a provider gives a nil use response, a follow-up phone call is used to check the veracity of the response.

Nil use continued

NIL USE, Vehicle type

	2002	2003	2004	2005	2006
NUMBER OF REGISTERED VEHICLES WITH NIL USE					
Passenger vehicles	350 224	345 789	406 865	393 971	409 471
Motor cycles	87 690	76 212	92 953	73 570	100 725
Light commercial vehicles	70 111	77 282	93 220	103 683	115 841
Rigid trucks	26 130	21 725	24 214	32 944	36 263
Articulated trucks	3 575	4 187	3 967	4 105	4 340
Non-freight carrying trucks	1 563	1 270	1 547	1 518	1 448
Buses	1 217	1 679	1 319	1 303	1 343
Total	*540 510*	*528 144*	*624 085*	*611 094*	*669 430*
PROPORTION OF REGISTERED VEHICLES WITH NIL USE (%)					
Passenger vehicles	3	3	4	4	4
Motor cycles	24	20	24	17	22
Light commercial vehicles	4	4	5	5	6
Rigid trucks	8	6	7	9	9
Articulated trucks	6	7	6	6	6
Non-freight carrying trucks	9	7	9	7	7
Buses	2	3	2	2	2
Total	*4*	*4*	*5*	*4*	*5*

STRATIFICATION CHANGES

28 An investigation into the stratification of the SMVU was conducted to determine whether the quality of the SMVU estimates could be improved. As a result, changes were implemented for the 2006 SMVU, with new strata introduced specifically for the newest passenger vehicles, light commercial vehicles, rigid trucks, articulated trucks and motorbikes. These changes resulted in larger numbers of selections being made from the newest vehicles on the frame, effectively increasing the pool of new vehicles on which the New Vehicle Provision adjustment can be made.

DISTRIBUTIONS

29 The following tables provide values for total kilometres travelled and total tonne-kilometres travelled for selected percentiles. These percentiles have been calculated from all values reported in each quarter of the reference period. Percentiles provide some indication of the distribution of vehicle use across the survey population. For example, one-fifth of New South Wales passenger vehicles reported a distance travelled of 1,126 kilometres or less for the quarter they were selected in the survey. Note that the minimum value for every combination of state/territory by type of vehicle for both tables is zero.

30 Users should contact the ABS if they have any queries on the quality and reliability of estimates for particular purposes.

SELECTED PERCENTILES(a), State/territory of registration—Type of vehicle

	20th Percentile	*40th Percentile*	*50th Percentile*	*60th Percentile*	*80th Percentile*	*95th Percentile*	*99th Percentile*
	TOTAL KILOMETRES TRAVELLED						
Passenger vehicles							
New South Wales	1 126	2 435	2 895	3 362	5 100	9 077	11 374
Victoria	1 083	2 379	2 891	3 435	5 495	8 853	13 610
Queensland	1 386	2 523	3 189	3 777	5 429	9 152	12 051
South Australia	1 044	2 091	2 537	3 138	4 962	7 996	12 581
Western Australia	1 156	2 292	2 732	3 300	4 822	7 196	14 055
Tasmania	937	2 148	2 698	3 094	4 782	9 131	15 316
Northern Territory	1 298	2 058	2 568	2 998	4 967	9 057	13 968
Australian Capital Territory	1 398	2 329	2 979	3 548	4 900	7 513	9 499
Australia	*1 168*	*2 376*	*2 890*	*3 443*	*5 218*	*8 853*	*12 441*
Motorcycles							
New South Wales	—	250	487	712	1 716	3 558	10 347
Victoria	—	179	408	593	1 582	3 979	4 763
Queensland	9	199	369	486	929	3 459	7 259
South Australia	—	180	291	474	1 407	2 871	4 555
Western Australia	—	77	176	440	1 172	2 769	4 868
Tasmania	—	126	324	620	1 645	5 450	6 252
Northern Territory	—	193	474	663	2 364	4 946	9 553
Australian Capital Territory	90	407	821	881	2 033	3 426	4 549
Australia	—	*182*	*369*	*585*	*1 396*	*3 460*	*6 575*
Light commercial vehicles							
New South Wales	1 613	2 833	3 546	4 340	6 536	10 974	14 069
Victoria	814	2 486	3 283	4 248	7 093	11 487	21 801
Queensland	831	2 871	3 977	4 737	6 886	10 880	14 516
South Australia	1 172	2 404	3 137	4 415	6 511	11 655	17 712
Western Australia	825	2 578	2 914	3 933	6 840	12 417	17 898
Tasmania	412	2 172	2 699	3 157	5 538	9 256	25 682
Northern Territory	1 002	2 444	3 229	4 175	6 787	11 259	17 712
Australian Capital Territory	1 620	2 807	3 391	4 675	6 184	9 677	14 516
Australia	*1 102*	*2 699*	*3 368*	*4 363*	*6 747*	*11 060*	*16 729*
Rigid trucks							
New South Wales	465	2 193	3 648	4 837	8 579	17 558	25 684
Victoria	145	1 072	2 593	4 042	8 222	17 213	30 908
Queensland	691	2 519	3 716	4 957	9 394	18 498	29 311
South Australia	195	1 771	2 406	4 054	7 600	16 196	27 656
Western Australia	65	1 242	2 370	3 884	8 895	16 066	38 252
Tasmania	381	1 422	2 406	3 360	7 630	14 319	32 697
Northern Territory	558	1 684	2 513	3 731	6 218	11 262	19 126
Australian Capital Territory	1 805	3 880	5 237	6 164	9 257	21 031	44 523
Australia	*299*	*1 878*	*3 152*	*4 507*	*8 661*	*17 213*	*28 689*
Articulated trucks							
New South Wales	3 511	10 102	14 367	21 011	39 320	57 803	76 032
Victoria	2 239	11 212	15 876	22 365	44 131	63 012	81 888
Queensland	2 480	13 380	18 934	24 992	47 710	67 474	93 755
South Australia	3 822	9 338	13 100	18 922	42 637	65 963	86 395
Western Australia	459	4 761	8 485	13 126	26 297	55 212	98 270
Tasmania	1 612	11 732	19 196	23 235	32 806	43 878	62 863
Northern Territory	2 548	6 044	10 613	16 744	33 572	59 499	107 642
Australian Capital Territory	5 570	24 389	31 491	32 933	47 233	64 655	97 676
Australia	*2 239*	*10 268*	*14 982*	*21 513*	*40 915*	*62 794*	*88 789*

— nil or rounded to zero (including null cells)

(a) Based on distance travelled in a quarter.

SELECTED PERCENTILES(a), State/territory of registration—Type of vehicle *continued*

	20th Percentile	*40th Percentile*	*50th Percentile*	*60th Percentile*	*80th Percentile*	*95th Percentile*	*99th Percentile*
	TOTAL KILOMETRES TRAVELLED						
Non-freight carrying trucks							
New South Wales	486	2 184	3 327	4 792	8 071	13 374	13 374
Victoria	334	805	1 417	2 905	6 274	9 587	20 022
Queensland	1 223	2 150	3 193	4 133	6 020	12 831	20 428
South Australia	90	376	571	936	2 572	10 000	18 354
Western Australia	38	234	353	530	1 156	6 304	6 943
Tasmania	90	113	423	651	5 150	9 986	12 465
Northern Territory	301	1 624	3 046	4 667	7 826	15 261	24 647
Australian Capital Territory	106	2 880	4 620	5 553	9 754	13 774	21 726
Australia	*234*	*805*	*1 600*	*2 669*	*6 020*	*12 757*	*18 354*
Buses							
New South Wales	2 120	4 217	5 883	6 897	12 524	18 026	41 816
Victoria	2 236	4 880	5 498	6 286	12 445	18 147	27 842
Queensland	1 898	3 742	4 543	6 514	12 224	22 674	49 956
South Australia	2 185	4 770	5 632	7 499	13 055	19 500	29 216
Western Australia	1 256	2 458	4 787	6 876	12 858	20 454	29 913
Tasmania	2 032	3 553	4 864	6 642	11 425	19 178	29 889
Northern Territory	1 409	3 545	4 657	6 262	11 911	27 891	60 406
Australian Capital Territory	2 987	8 310	11 333	12 475	17 073	25 661	52 432
Australia	*1 893*	*4 098*	*5 418*	*6 807*	*12 524*	*19 942*	*33 408*
Total							
New South Wales	1 109	2 435	2 978	3 465	5 234	9 752	12 164
Victoria	907	2 279	2 842	3 485	5 589	9 458	16 509
Queensland	1 191	2 451	3 197	3 865	5 938	10 272	14 508
South Australia	990	2 033	2 537	3 232	5 156	8 577	15 333
Western Australia	913	2 256	2 711	3 300	5 156	9 130	16 729
Tasmania	871	2 088	2 653	3 094	5 016	9 622	15 681
Northern Territory	1 055	2 058	2 626	3 234	5 540	9 880	17 712
Australian Capital Territory	1 277	2 273	2 949	3 548	5 001	7 963	10 452
Australia	*1 044*	*2 345*	*2 879*	*3 507*	*5 393*	*9 559*	*14 481*

(a) Based on distance travelled in a quarter.

SELECTED PERCENTILES(a), State/territory of registration—Type of freight vehicle

	20th Percentile	*40th Percentile*	*50th Percentile*	*60th Percentile*	*80th Percentile*	*95th Percentile*	*99th Percentile*
	TOTAL TONNE-KILOMETRES TRAVELLED						
Light commercial vehicles							
New South Wales	—	—	46	184	1 247	3 891	7 568
Victoria	—	—	58	274	1 465	6 352	12 891
Queensland	—	—	88	461	1 626	4 976	6 832
South Australia	—	47	180	465	1 424	5 245	21 871
Western Australia	—	—	6	136	1 239	4 471	8 361
Tasmania	—	—	—	—	362	2 632	5 806
Northern Territory	—	—	—	40	1 403	5 867	11 398
Australian Capital Territory	—	—	130	369	1 558	3 541	9 833
Australia	—	—	*46*	*240*	*1 460*	*4 881*	*9 151*
Rigid trucks							
New South Wales	284	1 838	3 145	5 379	19 114	66 092	257 618
Victoria	44	788	2 107	4 986	22 036	82 656	286 890
Queensland	388	2 804	4 876	8 052	24 685	102 075	420 461
South Australia	270	1 986	3 907	6 999	23 506	80 030	214 365
Western Australia	16	1 113	2 664	5 435	19 678	87 937	231 067
Tasmania	53	1 682	3 909	5 904	15 974	71 469	423 399
Northern Territory	419	1 407	2 843	5 026	15 640	43 110	146 773
Australian Capital Territory	746	4 345	5 946	9 791	28 769	130 690	483 417
Australia	*167*	*1 652*	*3 249*	*5 815*	*20 682*	*82 656*	*286 890*
Articulated trucks							
New South Wales	23 970	117 907	181 164	305 702	661 072	1 547 256	2 154 340
Victoria	24 483	113 709	199 169	288 535	866 109	1 734 295	2 475 257
Queensland	26 700	157 865	250 593	425 920	870 691	1 909 387	3 656 519
South Australia	34 179	105 106	138 308	281 227	791 471	2 374 652	3 162 015
Western Australia	2 866	59 238	96 006	180 471	519 744	2 361 717	6 370 246
Tasmania	12 274	103 201	220 551	321 317	505 766	863 657	1 583 524
Northern Territory	20 851	94 356	183 393	327 878	872 172	2 258 880	5 687 393
Australian Capital Territory	39 227	239 676	321 598	394 857	680 073	1 348 899	1 925 415
Australia	*19 404*	*112 731*	*185 080*	*298 607*	*760 276*	*1 801 010*	*3 170 163*

— nil or rounded to zero (including null cells)

(a) Based on distance travelled in a quarter

GLOSSARY

Articulated trucks Motor vehicles constructed primarily for load carrying, consisting of a prime mover which has no significant load carrying area, but with a turntable device which is linked to a semitrailer.

Average load carried Average load carried is calculated by dividing the total weight carried by the number of trips made while carrying a load.

Buses Motor vehicles constructed for the carriage of passengers. Included are all motor vehicles with 10 or more seats, including the driver's seat.

Business kilometres Distance travelled for hire and reward, or charged to a business expense, or for which an allowance was received. All distances travelled for business purposes, irrespective of actual use, and irrespective of vehicle type, are included in total business kilometres. The laden-unladen dissection of distance travelled for business purposes relates only to freight vehicles, i.e. light commercial vehicles, rigid trucks and articulated trucks.

Business use Use of vehicle for business, professional, farm or government purposes. It includes use for hire or reward, use which is chargeable to business expense and use for which an allowance was received. Travel to and from work is not included.

Capital city These areas are based on capital city Statistical Divisions as defined in the *Australian Standard Geographical Classification (ASGC) 2004*.

Sydney — this includes the area bounded by Gosford and Wyong; Hawkesbury and Blue Mountains; Campbelltown, Wollondilly and the Sutherland Local Government Areas.

Melbourne — this includes the area bounded by Werribee, Melton, Sunbury, Craigieburn, Whittlesea, Healesville, Warburton, Berwick, Pakenham and the whole of Mornington Peninsula.

Brisbane — this includes the area bounded by Caboolture, the eastern part of the Pine Rivers Shire, Redcliffe City, Redland Shire, Beenleigh, Logan City and the City of Ipswich.

Adelaide — this includes the area bounded by the Gulf of St. Vincent, the Gawler River and the Mount Lofty Ranges from Gawler to Bridgewater through Kangarilla and Willunga to Sellicks Beach.

Perth — this includes the area bounded by Yanchep and Bullsbrook; Warnbro, Keysbrook and Wooroloo.

Hobart — this includes the area bounded by New Norfolk; Sorell and Carlton Creek; Brighton and Snug.

Darwin — this includes Darwin and suburbs, Palmerston and other areas north of the Howard Springs turn-off.

Canberra — this includes all of the Australian Capital Territory.

Commodity carried The publication of commodities carried is based on the 10 sectional groupings of the *Australian Transport Freight Commodity Classification (ATFCC)*, with the addition of Tools of Trade.

Freight vehicles Consists of light commercial vehicles, rigid trucks and articulated trucks.

Fuel consumption Fuel consumption is calculated by aggregating the total kilometres travelled multiplied by reported average rate of fuel consumption for each vehicle.

Fuel consumption (average) The average rate of fuel consumption is calculated by dividing the total fuel consumption by total kilometres travelled for each type of vehicle.

Gross Combination Mass (GCM) Tare weight (i.e. unladen weight) of the motor vehicle and attached trailers, plus their maximum carrying capacity. In the survey, this was obtained for vehicles operated in combination (e.g. a prime mover/semitrailer combination, or a rigid truck/trailer combination).

Gross Vehicle Mass (GVM) Tare weight (i.e. unladen weight) of the motor vehicle, plus its maximum carrying capacity. In the survey, this was obtained for buses and rigid trucks not usually towing trailers.

Interstate This refers to any travel by vehicles outside their state or territory of registration.

Laden distance Distance travelled by light commercial vehicles, rigid trucks and articulated trucks from one destination to another when carrying freight.

Light commercial vehicles Motor vehicles constructed for the carriage of goods and which are less than or equal to 3.5 tonnes GVM. Included are utilities, panel vans, cab-chassis and goods carrying vans (whether four-wheel drive or not).

Non-freight carrying trucks Specialist motor vehicles or motor vehicles fitted with special purpose equipment, and having little or no goods carrying capacity, e.g. ambulances, cherry pickers, fire trucks and tow trucks.

Other Urban Areas These are based on the *Australian Standard Geographical Classification (ASGC) 2004* as being either Statistical Districts with a population greater than 40,000 or clusters of collection districts and other urban areas with a population greater than 40,000, based on the 2001 Population Census.

New South Wales — within the areas of Newcastle, Lake Macquarie, Port Stephens, Wollongong, Kiama, Bathurst-Orange, Maitland, Albury (excluding Wodonga), Hume, Wagga Wagga, Tweed Heads (excluding Gold Coast), Queanbeyan (excluding Canberra ACT), Lismore, Coffs Harbour, Greater Taree, Tamworth, Shellharbour, Cessnock, Nelson Bay, Port Macquarie and Nowra.

Victoria — within the areas of Geelong, Ballarat, Bendigo, Wodonga (excluding Albury), Shepparton, La Trobe Valley and Mildura.

Queensland — within the areas of the Sunshine Coast, Bundaberg, Hervey Bay, Rockhampton, Mackay, Townsville, Cairns, Gold Coast (excluding Tweed Heads), and Toowoomba.

Western Australia — within the areas of Mandurah and Bunbury.

Tasmania — within the areas of Launceston, Burnie, Devonport, Penguin, Ulverston, Wynyard and Latrobe.

This category is not applicable in South Australia, the Northern Territory and the Australian Capital Territory.

Passenger vehicles Motor vehicles constructed primarily for the carriage of persons and containing up to nine seats (including the driver's seat). Included are cars, station wagons, four-wheel drive passenger vehicles, passenger vans or mini buses with fewer than 10 seats and campervans.

Private use Travel which is not for business purposes. Travel to and from work is included.

Rigid trucks Motor vehicles exceeding 3.5 tonnes GVM, constructed with a load carrying area. Included are normal rigid trucks with a tow bar, draw bar or other non-articulated coupling on the rear of the vehicle.

Relative standard error (RSE) The standard error expressed as a percentage of the estimate to which it refers.

Standard error (SE) Indicates the extent to which an estimate might have varied by chance because only a sample of vehicles was included.

Stratification Stratification is the process where a population is divided into homogeneous groups called strata that are non-overlapping, and together comprise the whole population. This technique uses auxiliary information to increase the efficiency of a sample design and units are selected independently within each stratum.

Tonne-kilometres Total tonne-kilometres is the aggregation of the number of tonnes moved multiplied by the distance travelled in kilometres for each individual vehicle carrying freight. Note that it is not the aggregation of the total number of tonnes moved by total kilometres travelled by all vehicles carrying freight.

Tonnes carried Total tonnes carried is the total weight of goods and freight carried during the survey period. The estimate of total tonnes carried relates to goods and freight uplifted by vehicles and therefore will overstate the actual physical quantity of goods and freight moved during the survey period to the extent that transhipment occurs (i.e. the transfer of goods and freight from one vehicle to another).

Travel to and from work The travel between place of residence and place of work at the beginning and end of all working days, including travel to and from public transport stations.

Unladen distance Distance travelled by light commercial vehicles, rigid trucks and articulated trucks from one destination to another when not carrying freight.

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