



30 September 1995

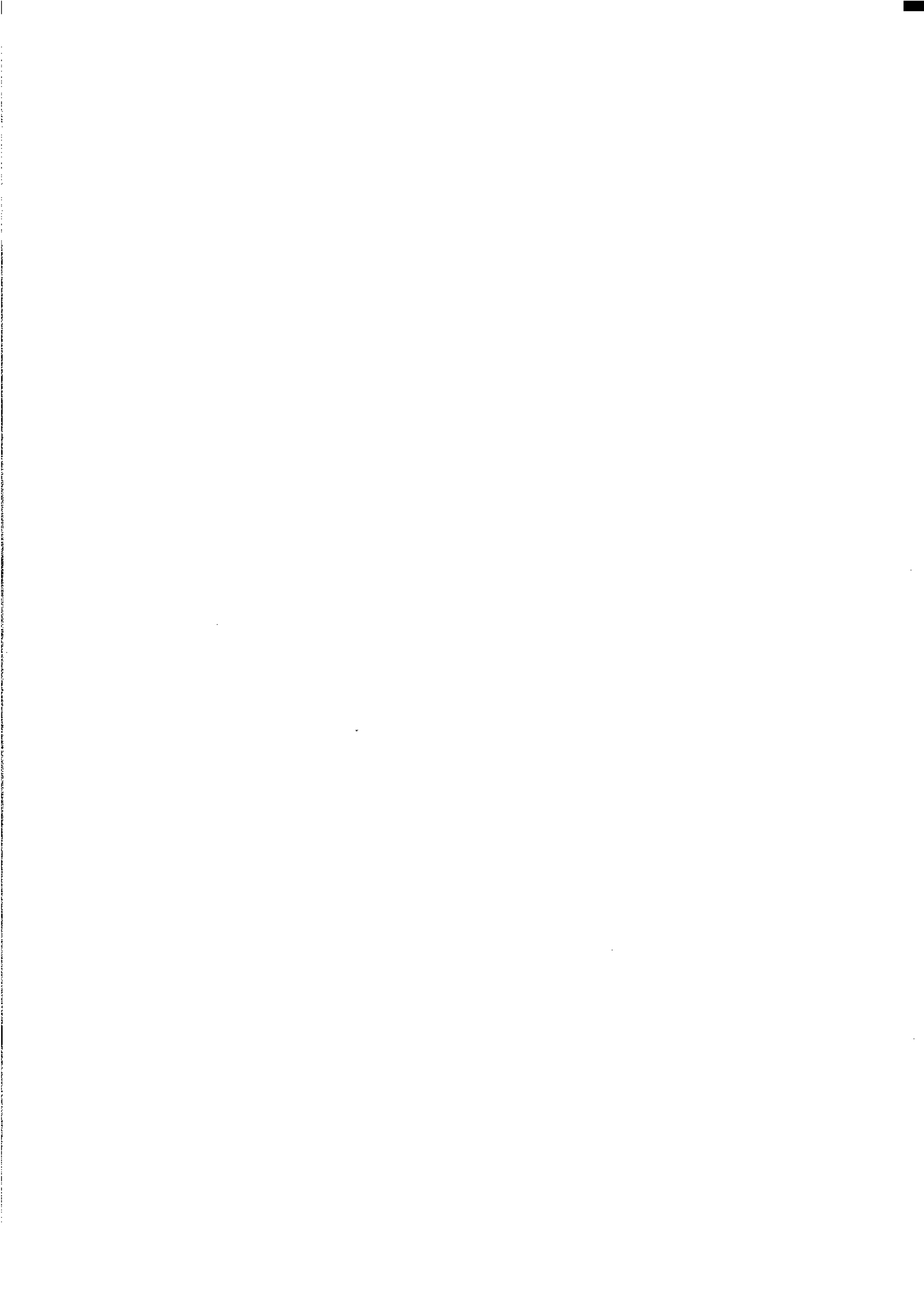
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# Survey of Motor Vehicle Use

**Australia**

**Preliminary**

*Statistics*



**SURVEY OF MOTOR VEHICLE USE,  
AUSTRALIA, PRELIMINARY  
30 SEPTEMBER 1995**

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**AUSTRALIAN BUREAU OF STATISTICS**

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**INQUIRIES:**

- *for further information about statistics in this publication and the availability of related unpublished statistics, contact Robert Boyle on Brisbane (07) 3222 6294 or Kerry McGreevy on Brisbane (07) 3222 6162.*
- *for information about other ABS statistics and services, please refer to the back of this publication.*

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## SUMMARY OF FINDINGS

### INTRODUCTION

This publication presents preliminary results from the 1995 Survey of Motor Vehicle Use. The data were collected in a sample survey conducted by the Australian Bureau of Statistics in respect of the 12 months ended 30 September 1995.

Detailed Explanatory Notes and a Glossary are shown at the back of this publication. The Explanatory Notes outline the scope of the survey, the methods, classifications and concepts used, and the reliability and quality of the results. A description of a review of methods conducted during 1995 and 1996 is also provided.

An explanation of the relative standard error (RSE) shown against the estimates in each table is provided in paragraphs 13–15 of the Explanatory Notes.

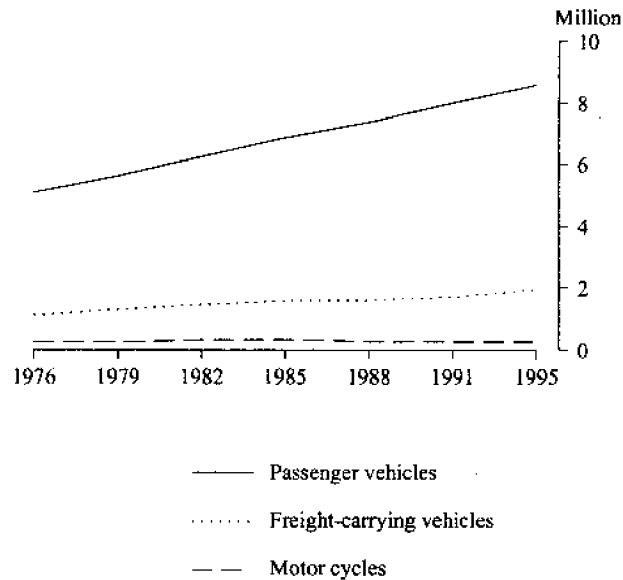
The ABS has been concerned at the extent of non-sampling error in its surveys of motor vehicle use. In particular, it is likely that the current collection methodology is flawed because of its dependence on the so-called 'recall methodology' for collecting motor vehicle use information from respondents. Most private vehicle owners do not keep detailed records to provide the requested statistics. The degree of record keeping by freight vehicle and bus owners is better, but it is by no means complete or systematic. This has led to two main types of observable deficiencies with the quality of data entered on survey questionnaires: firstly, where respondents have failed to provide a figure for particular questions, even after follow-up contact from the ABS; and secondly, where respondents have only been able to provide rounded figures for the questions about distance travelled. It is thought that rounding by respondents results in biased estimates of total distance travelled.

In light of these concerns about data quality, an extensive review of the methods employed to obtain vehicle use data commenced in 1995 and will continue throughout 1996. A number of methodological options designed to reduce non-sampling error are being trialed during this period. More detail is available in paragraphs 17–23 of the Explanatory Notes.

## NUMBER OF VEHICLES

Results of the 1995 Survey of Motor Vehicle Use relate to an estimated 10.9 million vehicles across Australia. There were 8.6 million passenger vehicles, representing 79% of all vehicles registered for road use. Light commercial vehicles accounted for a further 14% of vehicles; rigid trucks for 3%; motor cycles for 3% and articulated trucks, buses and non-freight carrying trucks for less than 1% each.

ESTIMATED NUMBER OF VEHICLES BY TYPE OF VEHICLE



Between 1976 and 1995 the total number of road using vehicles has increased by 67%. Passenger vehicle numbers have increased by 69% and freight-carrying vehicles (light commercials, rigid and articulated trucks) by 71%. On the other hand, since 1976 motor cycle numbers have shown an overall increase of only 2%. The 1995 figure represents a decline of 17% from their highest estimate recorded in 1982.

## DISTANCE TRAVELLED

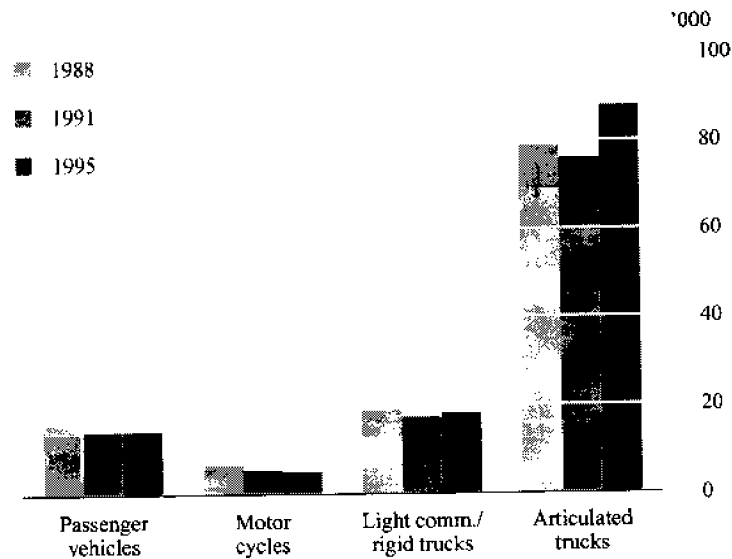
While freight-carrying vehicles and buses on average travel greater distances, there are far more passenger vehicles on the road and consequently this category shows the greatest aggregate distance travelled. Passenger vehicles accounted for 74% (123,691 million kilometres) of total distance travelled in Australia; freight-carrying vehicles 24% (39,570 million kilometres); motor cycles and buses 1% each (1,526 million kilometres and 1,479 million kilometres respectively); while non-freight carrying trucks travelled 249 million kilometres. Since 1976, the total distance travelled by passenger vehicles and freight-carrying vehicles has increased by 58% and 95% respectively.

The estimated total number of vehicles registered for road use at 30 September 1995 increased by 8% from 1991, while the estimated total distance travelled by all motor vehicles in the 12 months ended 30 September 1995 (166,514 million kilometres) was an increase of 11% over the corresponding period in 1991. Accordingly, the average distance travelled by motor vehicles in 1995 (15,200 kilometres), showed an increase of 2% from 1991 (14,900 kilometres). However the average for 1995 is still lower than the peak of 16,400 kilometres for the 12 months ended 30 September 1988. This is mainly due to passenger vehicles, which contributed 74% of total kilometres travelled. Average kilometres travelled for passenger vehicles fell 9% from the 1988 high, and only rose 1% from



1991. Articulated trucks recorded the largest increases in average kilometres travelled, rising by 12% compared with 1988 and 16% compared with 1991.

AVERAGE ANNUAL KILOMETRES TRAVELLED BY TYPE OF VEHICLE

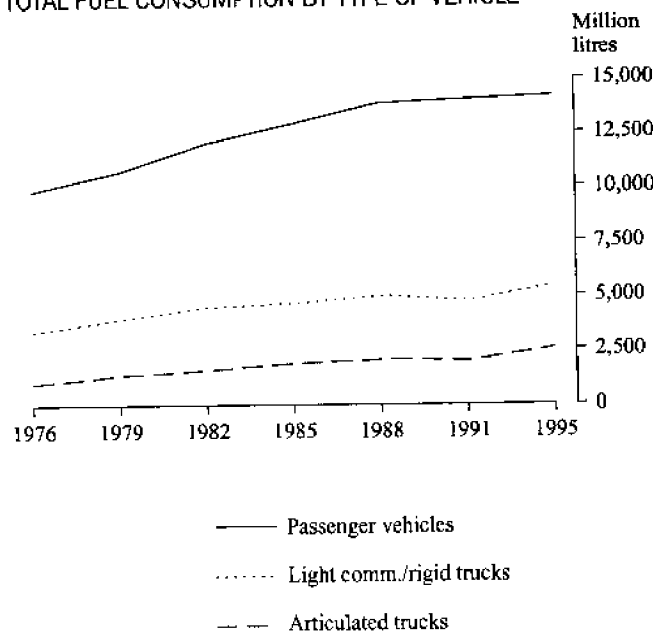


Vehicles registered in Queensland recorded the highest distance travelled per vehicle at 17,100 kilometres, followed by the Australian Capital Territory (16,800 kilometres) and the Northern Territory (16,000 kilometres), while Tasmania (13,500 kilometres) recorded the lowest average distance travelled.

FUEL CONSUMPTION

Total fuel consumption by all vehicles for the 12 months ended 30 September 1995 was estimated at 22,815 million litres. Passenger vehicles accounted for 62% (14,193 million litres) of total fuel consumed, followed by freight-carrying vehicles with 35% (8,055 million litres).

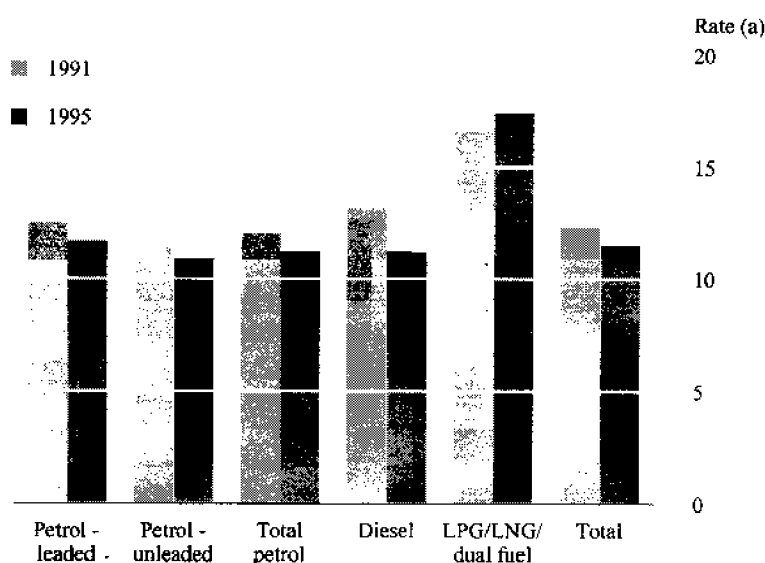
TOTAL FUEL CONSUMPTION BY TYPE OF VEHICLE



The use of unleaded petrol has shown strong growth to the extent that it is now used more than leaded petrol. In 1988, unleaded petrol accounted for 21% (3,337 million litres) of all petrol consumption, rising to 38% (5,764 million litres) in 1991 and 57% (8,674 million litres) in 1995. Petrol, both leaded and unleaded, accounted for 67% (15,268 million litres) of total fuel consumption in 1995, down from 72% in 1991 and 75% in 1988.

Consumption of diesel in the 12 months ended 30 September 1995 was 5,969 million litres. This was 26% of total fuel consumed and represented an increase of 23% from the corresponding period in 1991. Consumption of Liquefied Petroleum Gas (LPG)/Liquefied Natural Gas (LNG) and dual fuels, at 1,578 million litres (7% of total consumption), increased by 39% from 1991.

#### PASSENGER VEHICLES, AVERAGE RATE OF FUEL CONSUMPTION BY TYPE OF FUEL



(a) Litres per 100 kilometres.

The average rate of fuel consumption by all vehicles for all fuel types in the 12 months ended 30 September 1995 is estimated at 13.7 litres per hundred kilometres, down from the 1991 estimate of 14.2 litres per hundred kilometres. The average rate of fuel consumption for passenger vehicles was 11.5 litres per hundred kilometres. For those passenger vehicles using unleaded petrol, consumption averaged 10.9 litres per hundred kilometres, while leaded petrol consumption averaged 11.7 litres per hundred kilometres.

Consumption of diesel fuel in the 12 months ended 30 September 1995 averaged 24.9 litres per hundred kilometres for all vehicles, with articulated trucks averaging 50.6 litres, rigid trucks 27.2 litres, light commercial vehicles 11.9 litres and passenger vehicles 11.2 litres per hundred kilometres. Consumption of LPG/LNG and dual fuels averaged 17.5 litres per hundred kilometres for all vehicles, with passenger vehicles averaging 17.4 litres and light commercial vehicles averaging 16.7 litres per hundred kilometres.

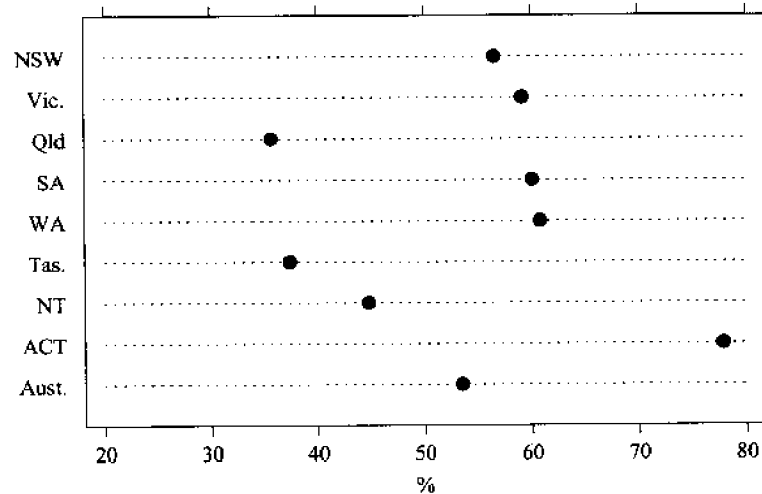
#### AREA OF OPERATION

Of the total distance travelled by all vehicles in the 12 months ended 30 September 1995, an estimated 96% (159,148 million kilometres) was within the State/Territory of registration of the vehicle. This was the same proportion as that recorded for 1991. About 53% (89,043 million kilometres) of aggregate kilometres driven by all vehicles was in a capital city

area, a slight reduction on the proportion recorded for 1991 (55%). For articulated trucks, however, only 20% (1,027 million kilometres) of the total distance travelled was within a capital city area, while 26% (1,315 million kilometres) was interstate.

Except for the Australian Capital Territory, where all distance travelled within the Territory is defined as capital city travel, Western Australian registered vehicles recorded the highest proportion of travel within the capital city area with 61%, followed by South Australian vehicles with 60%. Queensland registered vehicles recorded the lowest proportion of travel within a capital city, with 36%.

PROPORTION OF TOTAL KILOMETRES TRAVELLED WITHIN CAPITAL CITY AREA, ALL VEHICLES: STATE/TERRITORY OF REGISTRATION



Western Australian and Tasmanian registered vehicles recorded the lowest levels of interstate travel, with 1% and 2% respectively of their total distance travelled taking place in other States/Territories. Australian Capital Territory registered vehicles recorded the highest proportion of interstate travel with 22% of total distance travelled.

#### PRIVATE AND BUSINESS VEHICLE USE

Business use accounted for an estimated 34% (56,312 million kilometres) of the total distance travelled in the 12 months ended 30 September 1995, 36% (20,076 million kilometres) of which involved carrying freight.

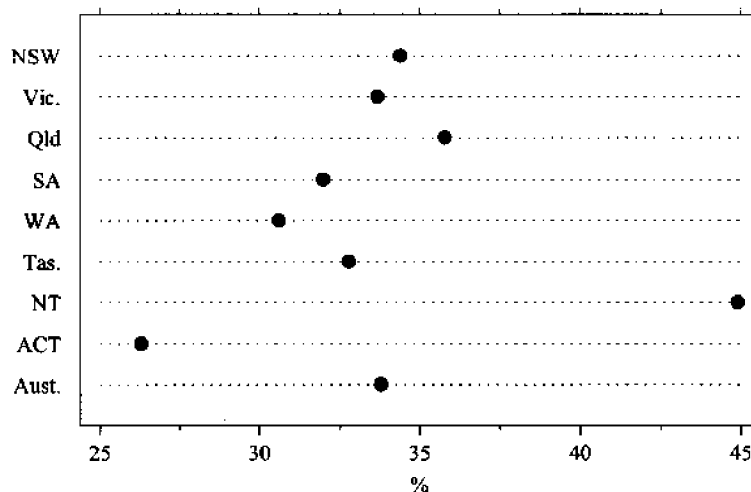
About 52% (64,417 million kilometres) of the total distance travelled by passenger vehicles was for private use, 27% (33,158 million kilometres) was for travel to and from work, and 21% (26,116 million kilometres) was for business use.

In respect of those vehicles used partly or wholly for business purposes, the average distance travelled for business purposes was 15,500 kilometres. Articulated trucks averaged 89,800 kilometres, 75% of which was while they were either partly or fully laden with freight. Buses averaged 33,200 kilometres; rigid trucks 20,700 kilometres; light commercial vehicles 17,000 kilometres; passenger vehicles 12,100 kilometres; and motorcycles 3,700 kilometres.

Victorian and Northern Territory registered vehicles used for business recorded the highest average business kilometres travelled in the 12 months ended 30 September 1995 with 18,000 kilometres, followed by Queensland

with 16,900 kilometres. The Australian Capital Territory recorded the lowest average with 12,600 kilometres.

PROPORTION OF TOTAL KILOMETRES TRAVELLED FOR BUSINESS PURPOSES:  
STATE/TERRITORY OF REGISTRATION



Of those vehicles used partly or wholly for private purposes, the average distance travelled for this purpose was 8,000 kilometres, with passenger vehicles averaging 8,300 kilometres. Vehicles registered in the Australian Capital Territory and South Australia recorded the highest average vehicle usage for private purposes with averages of 8,900 and 8,400 kilometres respectively.

Of those vehicles used partly or wholly for travel to and from work, the average distance travelled in the 12 months ended 30 September 1995 for this purpose was 6,600 kilometres. Light commercial vehicles recorded the highest average with 7,400 kilometres while non-freight carrying trucks recorded the lowest average with 3,500 kilometres.

FREIGHT-CARRYING  
VEHICLE USE

Freight-carrying vehicles travelled an estimated 20,076 million laden kilometres for business purposes in the 12 months ended 30 September 1995, a rise of 18% from the corresponding period in 1991.

Vehicles used for freight-carrying purposes averaged 16,700 laden business kilometres. Vehicles registered in Queensland and the Australian Capital Territory recorded the highest average laden business distance travelled with 18,900 and 18,800 kilometres respectively.

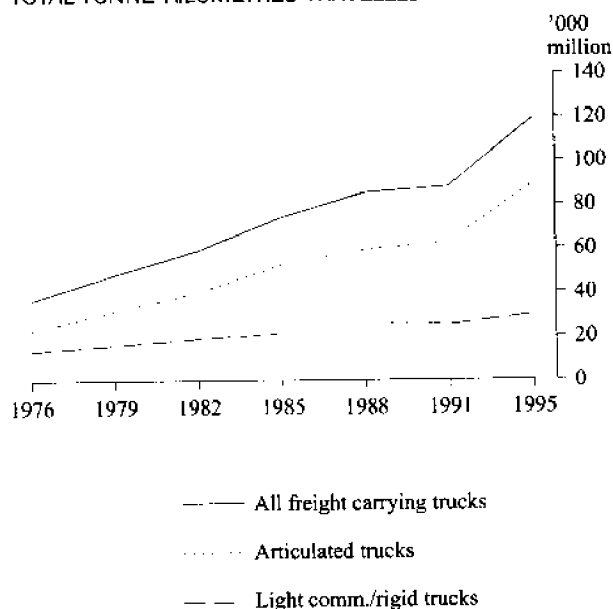
Two measures of freight movements are included in this survey. The first, measured in tonne-kilometres, is obtained by multiplying the average weight of loads carried by the distance travelled while laden, to provide a measure of the freight borne by the roads system. The second indicator, the mass of freight moved, measured in tonnes, provides an estimate of the total weight of freight moved by road in Australia.

Total tonne-kilometres travelled by freight-carrying vehicles was estimated to be 119,227 million tonne-kilometres for the 12 months ended 30 September 1995, an increase of 35% from 1991 and 60% from 1985. This large rise is in contrast to the 3% increase from 1988 to 1991.

Articulated trucks had the largest proportion of the total tonne-kilometres travelled with 75% (89,384 million tonne-kilometres). Rigid trucks

accounted for 21% (25,044 million tonne-kilometres) and light commercial vehicles for 4% (4,799 million tonne-kilometres). The average tonne-kilometres travelled by articulated trucks was 1,592,000 tonne-kilometres, by rigid trucks 81,800 tonne-kilometres and light commercial vehicles 5,700 tonne-kilometres. Articulated trucks showed an increase of 28% in average tonne-kilometres travelled from the 1991 estimate.

#### TOTAL TONNE-KILOMETRES TRAVELLED BY FREIGHT-CARRYING VEHICLES



Almost 26% (30,571 million tonne-kilometres) of total tonne-kilometres travelled was by vehicles registered in Victoria, followed by vehicles registered in New South Wales and Queensland, with 23% (27,713 million tonne-kilometres) and 22% (25,666 million tonne-kilometres), respectively.

Estimates of tonne-kilometres travelled by freight-carrying vehicles within each State and Territory, rather than by their State or Territory of registration, present a different picture. About 31% (37,003 million tonne-kilometres) of total tonne-kilometres travelled was by vehicles operated in New South Wales, followed by vehicles operated in Victoria and Queensland, with 21% (25,516 million tonne-kilometres) and 19% (22,479 million tonne-kilometres), respectively.

Articulated trucks with triaxle trailers travelled 55,122 million tonne-kilometres in the 12 months ended 30 September 1995. This represents 62% of the tonne-kilometres travelled by articulated trucks and 46% of the total tonne-kilometres travelled by all freight vehicles.

Separate details for road trains and B-Double combinations (a prime mover towing two semi-trailers) were collected for the first time in the 1995 survey. It is estimated that road trains travelled 14,945 million tonne-kilometres in the 12 months ended 30 September 1995. This represents 17% of the tonne-kilometres travelled by articulated trucks and 13% of the total tonne-kilometres travelled by all freight vehicles. B-Double combinations accounted for 9,111 million tonne-kilometres in 1995, 10% of the tonne-kilometres travelled by articulated trucks.

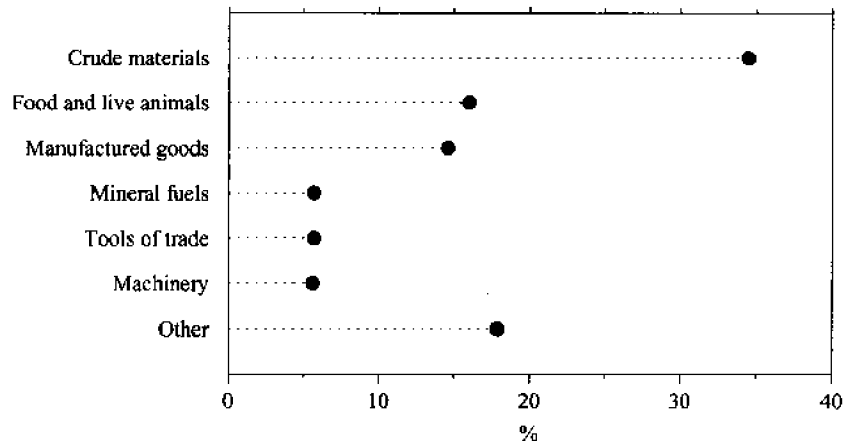
A total of 1,222 million tonnes of goods was estimated to have been carried by freight-carrying vehicles in the 12 months ended 30 September 1995, an increase of 19% from 1991. Vehicles registered in New South Wales carried

the largest proportion of tonnes with 27% (331 million tonnes), followed by vehicles registered in Queensland and Victoria, with 24% (289 million tonnes) and 22% (273 million tonnes), respectively.

Of the total tonnes of goods carried in the 12 months ended 30 September 1995, rigid trucks accounted for 50% (614 million tonnes), while articulated trucks accounted for 42% (508 million tonnes).

The average load carried per trip by articulated trucks was 20,969 kilograms, by rigid trucks 4,307 kilograms and by light commercial vehicles 391 kilograms.

PROPORTION OF TOTAL TONNES CARRIED BY COMMODITY

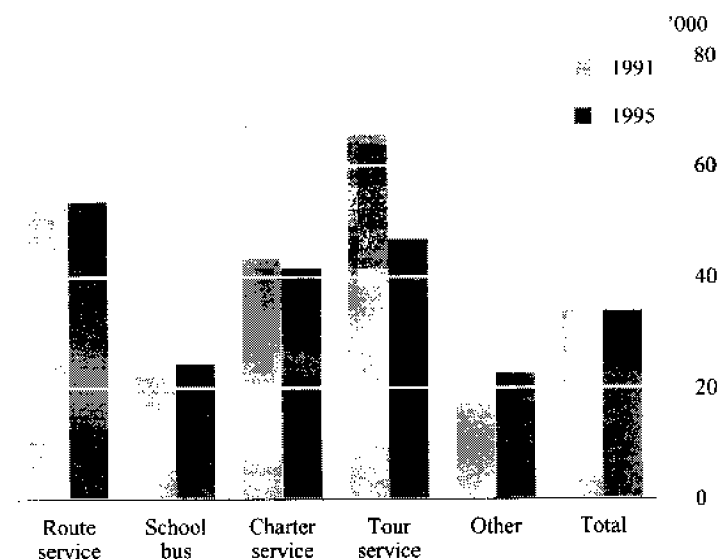


The commodity group Crude materials, inedible, except fuels, accounted for 35% (422 million tonnes) of the total tonnes carried, 22% more than 1991. The commodity group Food and live animals, accounted for 16% (196 million tonnes), an increase of 16% from 1991.

## BUS USE CHARACTERISTICS

An estimated 1,435 million kilometres were travelled by all buses used for work purposes in the 12 months ended 30 September 1995, an increase of 2% from the 1991 survey. Route services accounted for 39% (562 million kilometres) of the total distance travelled, dedicated school bus services contributed 21% (302 million kilometres), charter services 14% (198 million kilometres) and tour services accounted for 5% (70 million kilometres). The average distance travelled by all buses used for work purposes in the 1995 survey period was 33,900 kilometres. Buses registered in South Australia recorded the highest average distance travelled (43,100 kilometres) and Tasmanian registered buses travelled the lowest average distance (23,700 kilometres). Buses used for route services and tour services recorded the highest average distance travelled with 53,700 kilometres and 46,900 kilometres respectively.

AVERAGE ANNUAL KILOMETRES TRAVELLED BY BUSES BY TYPE OF SERVICE

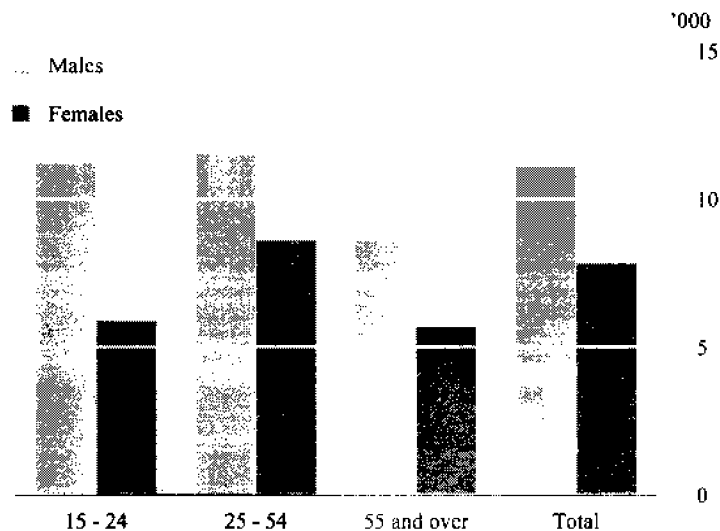


Total passengers carried by buses in the 12 months ended 30 September 1995 are estimated at 1,013 million, an increase of 14% over the corresponding figure for 1991. About 70% (711 million passengers) of total passengers were carried by route services, and a further 21% (208 million passengers) were carried by dedicated school bus services.

## DRIVER CHARACTERISTICS

The average distance travelled by drivers of all vehicles (excluding buses) in the 12 months ended 30 September 1995 was estimated at 9,800 kilometres, with male drivers averaging 11,100 kilometres and female drivers 7,800 kilometres. Drivers in the 25–54 year age group averaged the most kilometres with 10,300 kilometres and drivers aged 55 or more averaged the least with 7,600 kilometres.

AVERAGE KILOMETRES TRAVELLED (ALL VEHICLES EXCEPT BUSES) BY AGE AND SEX OF DRIVER



Drivers of passenger vehicles, including taxis and self-drive hire vehicles, drove an estimated 9,100 kilometres on average, while motor cyclists travelled an average 4,800 kilometres. Drivers of articulated trucks drove an average of 59,800 kilometres; drivers of rigid trucks an average 13,300 kilometres; and drivers of light commercial vehicles an average of 11,700 kilometres. Articulated truck drivers in the 25–54 year age group drove the greatest average distance of 60,200 kilometres.



**TABLE 1. ESTIMATED NUMBER OF VEHICLES BY TYPE OF VEHICLE, AUSTRALIA  
AT 30 SEPTEMBER  
(Number of vehicles)**

Type of vehicle	Year						
	1976 (a)	1979 (a)	1982 (a)	1985	1988	1991	1995
Passenger vehicles	5,095,329 (0)	5,636,238 (0)	(b) 6,267,128 (0)	6,879,449 (0)	7,375,610 (0)	8,007,838 (0)	8,608,907 (0)
Motor cycles	285,635 (1)	279,589 (1)	353,463 (1)	352,595 (0)	293,874 (1)	283,513 (0)	292,608 (1)
Light commercial vehicles	723,846 (1)	939,424 (1)	1,004,112 (1)	1,136,166 (1)	1,178,899 (1)	(c) 1,346,416 (1)	1,566,628 (2)
Rigid trucks	383,227 (0)	350,563 (1)	442,823 (2)	426,272 (1)	404,658 (1)	(c) 330,784 (1)	335,430 (1)
Articulated trucks	39,735 (1)	43,949 (1)	46,575 (1)	49,641 (1)	48,722 (0)	52,106 (1)	57,939 (1)
Non-freight carrying trucks	29,167 (5)	35,542 (1)	(b) 18,542 (4)	21,032 (3)	23,138 (5)	14,147 (9)	15,724 (4)
Buses	n.a.	n.a.	n.a.	n.a.	40,535 (4)	42,025 (1)	45,511 (1)
<b>Total</b>	<b>6,556,939 (0)</b>	<b>7,285,305 (0)</b>	<b>8,132,643 (0)</b>	<b>8,865,155 (0)</b>	<b>9,365,436 (0)</b>	<b>10,076,830 (0)</b>	<b>10,922,746 (0)</b>

(a) Excluding vehicles owned by the Australian government. (b) Campervans were included with non-freight carrying trucks in 1976 and 1979, but have been included with passenger vehicles from 1982 onwards. (c) From 1991 onwards, data are not strictly comparable with previous surveys due to revisions to body code classifications and/or improved processing procedures.

**TABLE 2. ESTIMATED NUMBER OF VEHICLES BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
AT 30 SEPTEMBER 1995  
(Number of vehicles)**

Type of vehicle	State/Territory of registration							
	NSW	Vic.	Qld	SA	WA	Tas.	ACT	Australia
Passenger vehicles	2,675,449 (1)	2,315,625 (1)	1,518,368 (0)	771,024 (1)	878,624 (1)	237,765 (1)	58,637 (1)	8,608,907 (0)
Motor cycles	74,227 (2)	69,767 (1)	68,326 (0)	28,125 (2)	36,016 (3)	7,208 (0)	3,929 (0)	292,608 (1)
Light commercial vehicles	447,803 (6)	363,782 (6)	337,922 (2)	120,871 (5)	197,646 (4)	59,331 (3)	21,363 (4)	1,566,628 (2)
Rigid trucks	102,618 (1)	82,674 (1)	63,732 (1)	27,260 (2)	41,838 (1)	10,890 (1)	3,577 (4)	335,430 (1)
Articulated trucks	14,928 (4)	17,399 (2)	11,274 (2)	5,216 (2)	6,266 (3)	1,633 (2)	946 (2)	57,939 (1)
Non-freight carrying trucks	2,610 (13)	4,260 (6)	2,903 (9)	1,882 (7)	2,787 (15)	914 (5)	223 (16)	15,724 (4)
Buses	12,009 (2)	11,638 (3)	8,921 (1)	3,313 (2)	5,279 (4)	1,952 (2)	1,599 (3)	45,511 (1)
<b>Total</b>	<b>3,329,645 (0)</b>	<b>2,865,146 (0)</b>	<b>2,011,446 (0)</b>	<b>957,690 (0)</b>	<b>1,168,457 (0)</b>	<b>319,694 (0)</b>	<b>90,275 (0)</b>	<b>10,922,746 (0)</b>

TABLE 3. TOTAL KILOMETRES TRAVELLED BY TYPE OF VEHICLE, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER

Type of vehicle	Year													
	1976 (a)	1979 (a)	1982 (a)	1985	1988	1991	1995							
		RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)							
Passenger vehicles	78,531	(1)	(b) 96,109	(1)	106,574	(1)	114,286	(1)	123,691	(3)				
Motor cycles	1,641	(5)	2,152	(4)	2,276	(3)	1,924	(3)	1,615	(3)	1,526	(7)		
Light commercial vehicles	12,290	(3)	16,951	(4)	20,121	(2)	21,982	(2)	(c) 22,814	(2)	27,751	(3)		
Rigid trucks	6,032	(1)	5,837	(2)	8,417	(5)	7,627	(2)	(c) 6,114	(2)	6,725	(2)		
Articulated trucks	2,005	(1)	2,607	(1)	3,000	(1)	3,588	(1)	3,836	(1)	3,959	(1)		
Non-freight carrying trucks	420	(9)	457	(5)	(b) 237	(12)	242	(7)	261	(7)	201	(20)		
Buses	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,433	(3)	1,401	(2)	1,479	(2)		
<b>Total</b>	<b>100,919</b>	<b>(1)</b>	<b>111,469</b>	<b>(1)</b>	<b>126,866</b>	<b>(1)</b>	<b>140,427</b>	<b>(1)</b>	<b>153,915</b>	<b>(1)</b>	<b>150,389</b>	<b>(1)</b>	<b>166,514</b>	<b>(2)</b>

(a) Excluding vehicles owned by the Australian government. (b) Campervans were included with non-freight carrying trucks in 1976 and 1979, but have been included with passenger vehicles from 1982 onwards. (c) From 1991 onwards, data are not strictly comparable with previous surveys due to revisions to body code classifications and/or improved processing procedures.

TABLE 4. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER

Type of vehicle	Year													
	1976 (b)	1979 (b)	1982 (b)	1985	1988	1991	1995							
		RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)							
Passenger vehicles	15.4	(1)	15.1	(1)	15.5	(1)	15.8	(1)	14.3	(1)	14.4	(3)		
Motor cycles	5.7	(5)	6.3	(4)	6.5	(3)	6.5	(3)	5.7	(3)	5.2	(7)		
Light commercial vehicles	17.0	(3)	16.9	(3)	17.7	(2)	18.6	(2)	(d) 16.9	(2)	17.7	(2)		
Rigid trucks	15.7	(1)	16.7	(2)	19.0	(4)	19.4	(2)	(d) 18.5	(1)	20.0	(2)		
Articulated trucks	50.5	(1)	59.3	(1)	64.4	(1)	78.7	(1)	76.0	(1)	87.9	(2)		
Non-freight carrying trucks	14.4	(5)	12.9	(5)	(c) 12.8	(11)	11.5	(6)	14.2	(13)	15.9	(7)		
Buses	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	35.3	(3)	33.3	(2)	32.5	(2)		
<b>Total</b>	<b>15.4</b>	<b>(1)</b>	<b>15.3</b>	<b>(1)</b>	<b>15.6</b>	<b>(1)</b>	<b>15.8</b>	<b>(1)</b>	<b>16.4</b>	<b>(1)</b>	<b>14.9</b>	<b>(1)</b>	<b>15.2</b>	<b>(2)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept. (b) Excluding vehicles owned by the Australian government. (c) Campervans were included with non-freight carrying trucks in 1976 and 1979, but have been included with passenger vehicles from 1982 onwards. (d) From 1991 onwards, data are not strictly comparable with previous surveys due to revisions to body code classifications and/or improved processing procedures.

**TABLE 5. TOTAL KILOMETRES TRAVELLED BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**  
(Million kilometres)

Type of vehicle	State/Territory of registration									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
Passenger vehicles	36,562	32,832	24,727	10,315	12,847	3,091	808	2,510	123,691	
Motor cycles	450	331	402	144	127	29	16	27	1,526	
Light commercial vehicles	7,831	6,321	6,486	2,021	3,315	841	387	349	27,751	
Rigid trucks	2,261	1,583	1,399	460	718	159	68	76	6,725	
Articulated trucks	1,244	1,493	1,042	538	501	142	102	30	5,094	
Non-freight carrying trucks	59	63	56	22	* 39	4	* 4	* 2	249	
Buses	405	315	304	137	188	44	55	29	1,479	
<b>Total</b>	<b>48,812</b>	<b>43,140</b>	<b>34,417</b>	<b>13,636</b>	<b>17,735</b>	<b>4,313</b>	<b>1,441</b>	<b>3,023</b>	<b>166,514</b>	

**TABLE 6. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**  
(\* 000 kilometres)

Type of vehicle	State/Territory of registration									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
Passenger vehicles	13.7	14.2	16.3	13.4	14.6	13.0	13.8	16.4	14.4	
Motor cycles	6.1	4.7	5.9	5.1	3.5	4.0	4.2	5.3	5.2	
Light commercial vehicles	17.5	17.9	19.2	16.7	16.8	14.2	18.1	19.5	17.7	
Rigid trucks	22.0	19.2	21.9	16.9	17.2	14.6	19.0	26.9	20.0	
Articulated trucks	83.3	85.8	92.5	103.2	79.9	86.9	108.3	109.5	87.9	
Non-freight carrying trucks	22.5	14.9	19.4	11.5	14.0	4.4	17.1	* 15.4	15.9	
Buses	33.7	27.1	34.0	41.5	35.6	22.7	34.5	36.7	32.5	
<b>Total</b>	<b>14.7</b>	<b>15.1</b>	<b>17.1</b>	<b>14.2</b>	<b>15.2</b>	<b>13.5</b>	<b>16.0</b>	<b>16.8</b>	<b>15.2</b>	

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

**TABLE 7. TOTAL FUEL CONSUMPTION BY TYPE OF VEHICLE AND TYPE OF FUEL, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995**

(Million litres)

Type of vehicle	Type of fuel					
	Petrol		Total	Diesel	LPG/LNG/ dual fuel	Total
	Leaded	Unleaded				
Passenger vehicles	5,288 (5)	7,462 (4)	12,750 (3)	490 (24)	952 (15)	14,193 (3)
Motor cycles	43 (9)	46 (19)	88 (10)	n.a.	n.a.	88 (10)
Light commercial vehicles	1,141 (7)	1,135 (4)	2,276 (4)	826 (8)	555 (11)	3,658 (3)
Rigid trucks	98 (8)	8 (21)	106 (7)	1,668 (3)	44 (19)	1,818 (3)
Articulated trucks	**	n.a.	**	2,573 (2)	n.s.	2,579 (2)
Non-freight carrying trucks	n.p.	12 (16)	n.p.	33 (12)	n.p.	64 (10)
Buses	10 (20)	11 (12)	21 (11)	378 (3)	15 (19)	415 (2)
<b>Total</b>	<b>6,594 (4)</b>	<b>8,674 (4)</b>	<b>15,268 (3)</b>	<b>5,969 (3)</b>	<b>1,578 (10)</b>	<b>22,815 (2)</b>

**TABLE 8. AVERAGE RATE OF FUEL CONSUMPTION (a) BY TYPE OF VEHICLE AND TYPE OF FUEL, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995**

(Litres per 100 kilometres)

Type of vehicle	Type of fuel					
	Petrol		Total	Diesel	LPG/LNG/ dual fuel	Total
	Leaded	Unleaded				
Passenger vehicles	11.7 (2)	10.9 (1)	11.2 (1)	11.2 (8)	17.4 (5)	11.5 (1)
Motor cycles	5.7 (3)	5.9 (7)	5.8 (4)	n.a.	n.a.	5.8 (4)
Light commercial vehicles	13.6 (2)	12.4 (1)	13.0 (1)	11.9 (2)	16.7 (2)	13.2 (1)
Rigid trucks	23.1 (4)	21.3 (6)	22.9 (4)	27.2 (2)	32.0 (7)	27.0 (1)
Articulated trucks	43.6 (8)	n.a.	43.6 (8)	50.6 (1)	n.s.	50.6 (1)
Non-freight carrying trucks	24.8 (5)	23.3 (5)	23.9 (4)	25.3 (5)	31.0 (9)	25.6 (3)
Buses	23.4 (8)	13.4 (2)	17.0 (5)	28.9 (1)	33.7 (10)	28.0 (1)
<b>Total</b>	<b>12.0 (2)</b>	<b>11.0 (1)</b>	<b>11.4 (1)</b>	<b>24.9 (3)</b>	<b>17.5 (3)</b>	<b>13.7 (1)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

**TABLE 9. TOTAL KILOMETRES TRAVELLED BY TYPE OF VEHICLE AND AREA OF OPERATION, AUSTRALIA**  
12 MONTHS ENDED 30 SEPTEMBER 1995  
(Million kilometres)

Type of vehicle	Area of operation							
	Within State/Territory of registration							
	Capital city	Other urban areas	Other areas	Total	Interstate	Australia		
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)		
Passenger vehicles	70,538	(4)	18,206	(10)	30,205	(7)	123,691	(3)
Motor cycles	772	(13)	n.p.		453	(11)	n.p.	
Light commercial vehicles	12,469	(4)	4,507	(10)	9,871	(5)	904	(14)
Rigid trucks	3,377	(3)	919	(7)	2,193	(4)	236	(12)
Articulated trucks	1,027	(5)	453	(8)	2,299	(3)	1,315	(5)
Non-freight carrying trucks	137	(12)	n.p.		82	(15)	**	**
Buses	724	(4)	169	(8)	497	(5)	89	(12)
<b>Total</b>	<b>89,043</b>	<b>(3)</b>	<b>24,505</b>	<b>(8)</b>	<b>45,600</b>	<b>(5)</b>	<b>7,367</b>	<b>(9)</b>
							<b>159,148</b>	<b>(2)</b>
								<b>166,514</b>
								<b>(2)</b>

**TABLE 10. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE AND AREA OF OPERATION, AUSTRALIA**  
12 MONTHS ENDED 30 SEPTEMBER 1995  
(\*000 kilometres)

Type of vehicle	Area of operation							
	Within State/Territory of registration							
	Capital city	Other urban areas	Other areas	Total	Interstate	Australia		
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)		
Passenger vehicles	10.7	(4)	6.6	(9)	6.7	(6)	14.1	(3)
Motor cycles	5.1	(12)	2.7	(12)	3.1	(10)	5.2	(8)
Light commercial vehicles	14.7	(3)	11.1	(6)	11.7	(3)	17.4	(2)
Rigid trucks	21.5	(3)	14.8	(7)	12.1	(4)	19.9	(2)
Articulated trucks	30.6	(4)	24.2	(7)	52.3	(3)	67.0	(2)
Non-freight carrying trucks	21.4	(10)	11.6	(17)	8.6	(10)	16.0	(7)
Buses	26.4	(3)	14.6	(7)	21.3	(4)	30.9	(2)
<b>Total</b>	<b>11.4</b>	<b>(3)</b>	<b>7.3</b>	<b>(7)</b>	<b>8.0</b>	<b>(4)</b>	<b>14.9</b>	<b>(2)</b>
							<b>4.9</b>	<b>(8)</b>
								<b>15.6</b>
								<b>(2)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

TABLE 11. TOTAL KILOMETRES TRAVELLED BY AREA OF OPERATION, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

State/Territory of registration	(Million kilometres)											
	Area of operation											
	Within State/Territory of registration		Other areas		Total	Australia						
Capital city	Other urban areas	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)						
New South Wales	27,633	8,682	(8)	(16)	10,683	(10)	46,998	(5)	1,814	(22)	48,812	(5)
Victoria	25,547	4,330	(6)	(14)	11,419	(12)	41,295	(5)	1,844	(15)	43,140	(5)
Queensland	12,279	9,936	(7)	(11)	10,471	(9)	32,685	(4)	1,731	(24)	34,417	(4)
South Australia	8,190	..	(6)	..	4,487	(9)	12,677	(5)	959	(17)	13,636	(4)
Western Australia	10,786	..	(6)	..	6,796	(9)	17,583	(4)	* 153	(32)	17,735	(4)
Tasmania	1,611	1,557	(8)	(9)	1,071	(10)	4,239	(4)	* 71	(28)	4,311	(4)
Northern Territory	645	..	(7)	..	673	(7)	1,318	(4)	123	(17)	1,441	(4)
Australian Capital Territory	2,352	..	(5)	..	..	..	2,352	(5)	671	(10)	3,023	(5)
<b>Australia</b>	<b>89,043</b>	<b>24,505</b>	<b>(3)</b>	<b>(8)</b>	<b>45,600</b>	<b>(5)</b>	<b>159,148</b>	<b>(2)</b>	<b>7,367</b>	<b>(9)</b>	<b>166,514</b>	<b>(2)</b>

TABLE 12. AVERAGE KILOMETRES TRAVELLED (a) BY AREA OF OPERATION, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

State/Territory of registration	('000 kilometres)											
	Area of operation											
	Within State/Territory of registration		Other areas		Total	Australia						
Capital city	Other urban areas	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)						
New South Wales	11.8	7.5	(7)	(14)	6.6	(8)	14.4	(5)	3.5	(19)	15.0	(5)
Victoria	12.0	5.1	(5)	(12)	7.8	(11)	14.9	(5)	5.1	(14)	15.6	(5)
Queensland	10.3	8.5	(6)	(10)	7.8	(8)	16.3	(4)	5.5	(21)	17.2	(4)
South Australia	10.6	..	(6)	..	9.4	(8)	13.8	(4)	6.9	(14)	14.7	(4)
Western Australia	11.5	..	(5)	..	11.3	(7)	15.4	(4)	7.4	(22)	15.6	(4)
Tasmania	8.4	9.3	(7)	(7)	6.4	(9)	13.5	(4)	5.1	(17)	13.7	(4)
Northern Territory	11.0	..	(6)	..	12.1	(7)	15.1	(4)	11.7	(12)	16.4	(4)
Australian Capital Territory	13.1	..	(5)	..	..	..	13.1	(5)	5.0	(9)	16.8	(4)
<b>Australia</b>	<b>11.4</b>	<b>7.3</b>	<b>(3)</b>	<b>(7)</b>	<b>8.0</b>	<b>(4)</b>	<b>14.9</b>	<b>(2)</b>	<b>4.9</b>	<b>(8)</b>	<b>15.6</b>	<b>(2)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

TABLE 13. TOTAL KILOMETRES TRAVELLED BY TYPE OF VEHICLE AND PURPOSE, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995  
(Million kilometres)

Type of vehicle	Purpose					
	Business		Private		Total	
	Laden	Unladen	Total (a)	To and from work	Private	Total
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)
Passenger vehicles	..	..	26,116 (9)	33,158 (6)	64,417 (4)	123,691 (3)
Motor cycles	..	..	177 (21)	579 (16)	769 (8)	1,526 (7)
Light commercial vehicles	11,558 (3)	4,342 (4)	16,918 (4)	5,190 (7)	5,642 (4)	27,751 (3)
Rigid trucks	4,740 (2)	1,650 (3)	6,391 (2)	209 (8)	125 (12)	6,725 (2)
Articulated trucks	3,778 (2)	1,285 (3)	5,063 (2)	24 (19)	* 7 (42)	5,094 (2)
Non-freight carrying trucks	..	..	241 (9)	* 3 (28)	* 5 (31)	249 (9)
Buses	..	..	1,406 (2)	24 (16)	49 (12)	1,479 (2)
<b>Total</b>	<b>20,076 (2)</b>	<b>7,277 (3)</b>	<b>56,312 (4)</b>	<b>39,188 (5)</b>	<b>71,015 (3)</b>	<b>166,514 (2)</b>

(a) Including the business travel of non-freight carrying vehicles, as well as the total business kilometres for some light commercial vehicles where the laden and unladen business kilometres could not be obtained.

TABLE 14. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE AND PURPOSE, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995  
(\*000 kilometres)

Type of vehicle	Purpose					
	Business		Private		Total	
	Laden	Unladen	Total (b)	To and from work	Private	Total
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)
Passenger vehicles	..	..	12.1 (7)	6.6 (5)	8.3 (3)	14.7 (3)
Motor cycles	..	..	3.7 (16)	4.3 (15)	3.4 (7)	5.4 (7)
Light commercial vehicles	13.8 (3)	7.6 (4)	17.0 (3)	7.4 (4)	6.8 (4)	18.0 (2)
Rigid trucks	15.5 (2)	7.1 (3)	20.7 (2)	4.8 (7)	3.7 (11)	20.5 (2)
Articulated trucks	67.3 (2)	27.0 (3)	89.8 (2)	5.6 (15)	* 5.4 (36)	89.9 (2)
Non-freight carrying trucks	..	..	16.2 (7)	3.5 (20)	5.2 (24)	16.1 (7)
Buses	..	..	33.2 (2)	5.3 (12)	7.8 (10)	32.8 (2)
<b>Total</b>	<b>16.7 (2)</b>	<b>8.5 (2)</b>	<b>15.5 (4)</b>	<b>6.6 (4)</b>	<b>8.0 (3)</b>	<b>15.6 (2)</b>

(a) See paragraphs 1.0-1.1 of Explanatory Notes on average concept. (b) Including the business travel of non-freight carrying vehicles, as well as the total business kilometres for some light commercial vehicles where the laden and unladen business kilometres could not be obtained.

**TABLE 15. TOTAL KILOMETRES TRAVELLED BY PURPOSE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**

(Million kilometres)

State/Territory of registration	Purpose					Total	RSE(%)
	Business		To and from work		Private		
	Laden	Unladen	Total (a)	RSE(%)			
New South Wales	5,685 (4)	2,088 (6)	16,812 (8)	10,607 (14)	21,393 (8)	48,812 (5)	
Victoria	4,976 (3)	1,615 (6)	14,541 (10)	10,295 (9)	18,304 (7)	43,140 (5)	
Queensland	4,798 (6)	1,571 (6)	12,305 (8)	8,710 (10)	13,401 (7)	34,417 (4)	
South Australia	1,568 (3)	589 (6)	4,368 (7)	2,747 (10)	6,521 (8)	13,636 (4)	
Western Australia	2,092 (4)	1,017 (5)	5,428 (7)	4,854 (10)	7,453 (6)	17,735 (4)	
Tasmania	456 (4)	196 (6)	1,416 (8)	815 (10)	2,080 (7)	4,311 (4)	
Northern Territory	245 (4)	137 (7)	647 (5)	297 (10)	497 (8)	1,441 (4)	
Australian Capital Territory	256 (4)	64 (7)	795 (14)	863 (8)	1,366 (7)	3,023 (5)	
<b>Australia</b>	<b>20,076 (2)</b>	<b>7,277 (3)</b>	<b>56,312 (4)</b>	<b>39,188 (5)</b>	<b>71,015 (3)</b>	<b>166,514 (2)</b>	

(a) Including the business travel of non-freight carrying vehicles, as well as the total business kilometres for some light commercial vehicles where the laden and unladen business kilometres could not be obtained.

**TABLE 16. AVERAGE KILOMETRES TRAVELLED (a) BY PURPOSE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**

(\*000 kilometres)

State/Territory of registration	Purpose					Total	RSE(%)
	Business		To and from work		Private		
	Laden	Unladen	Total (b)	RSE(%)			
New South Wales	16.2 (3)	8.1 (6)	14.3 (8)	6.2 (13)	7.9 (7)	15.0 (5)	
Victoria	17.0 (3)	8.4 (5)	18.0 (9)	6.2 (7)	7.8 (6)	15.6 (5)	
Queensland	18.9 (5)	9.6 (5)	16.9 (7)	8.2 (8)	8.3 (6)	17.2 (4)	
South Australia	15.4 (3)	7.6 (5)	13.8 (6)	5.7 (8)	8.4 (8)	14.7 (4)	
Western Australia	15.2 (3)	9.0 (4)	14.1 (7)	7.4 (8)	8.1 (6)	15.6 (4)	
Tasmania	12.7 (4)	7.2 (5)	13.2 (8)	5.3 (8)	7.9 (6)	13.7 (4)	
Northern Territory	17.9 (3)	12.4 (7)	18.0 (5)	6.0 (9)	7.8 (8)	16.4 (4)	
Australian Capital Territory	18.8 (3)	7.6 (6)	12.6 (13)	6.8 (7)	8.9 (7)	16.8 (4)	
<b>Australia</b>	<b>16.7 (2)</b>	<b>8.5 (2)</b>	<b>15.5 (4)</b>	<b>6.6 (4)</b>	<b>8.0 (3)</b>	<b>15.6 (2)</b>	

(a) See paragraphs 10-11 of Explanatory Notes on average concept. (b) Including the business travel of non-freight carrying vehicles, as well as the total business kilometres for some light commercial vehicles where the laden and unladen business kilometres could not be obtained.



TABLE 17. TOTAL BUSINESS KILOMETRES TRAVELLED BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

Type of vehicle	(Million kilometres)																				
	State/Territory of registration																				
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia												
Passenger vehicles	8,181 * 77	7,242 * 42	5,410 * 30	1,899 * 9	2,064 * 11	682 * 3	196 **	* 441 **	26,116 177	(9) (21)											
Motor cycles	4,719 (8)	3,942 (8)	4,123 (8)	1,331 (8)	1,955 (6)	401 (9)	230 (7)	218 (6)	16,918 (4)	(4)											
Light commercial vehicles	2,151 (5)	1,482 (5)	1,356 (5)	435 (5)	686 (4)	146 (4)	61 (7)	73 (6)	6,391 (2)	(2)											
Rigid trucks	1,235 (6)	1,481 (4)	1,039 (4)	537 (5)	497 (5)	141 (4)	102 (7)	30 (5)	5,063 (2)	(2)											
Articulated trucks	58 (20)	60 (18)	54 (12)	20 (20)	* 38 (34)	4 (14)	n.p.	n.p.	241 (9)	(9)											
Non-freight carrying trucks	391 (5)	290 (5)	292 (6)	136 (5)	177 (7)	39 (7)	53 (6)	28 (6)	1,406 (2)	(2)	<b>Total</b>	<b>16,812 (8)</b>	<b>14,541 (10)</b>	<b>12,305 (8)</b>	<b>4,368 (7)</b>	<b>5,428 (7)</b>	<b>1,416 (8)</b>	<b>647 (5)</b>	<b>795 (14)</b>	<b>56,312 (4)</b>	<b>(4)</b>
<b>Total</b>	<b>16,812 (8)</b>	<b>14,541 (10)</b>	<b>12,305 (8)</b>	<b>4,368 (7)</b>	<b>5,428 (7)</b>	<b>1,416 (8)</b>	<b>647 (5)</b>	<b>795 (14)</b>	<b>56,312 (4)</b>	<b>(4)</b>											

TABLE 18. AVERAGE BUSINESS KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

Type of vehicle	('000 kilometres)																				
	State/Territory of registration																				
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia												
Passenger vehicles	11.0 * 5.8	16.3 * 3.2	12.6 3.3	10.0 * 2.3	9.5 1.8	10.8 * 3.0	11.8 * 2.6	9.3 * 4.1	12.1 3.7	(7) (16)											
Motor cycles	16.0 (8)	16.2 (5)	20.1 (7)	15.2 (4)	17.6 (6)	13.4 (6)	17.6 (7)	19.5 (4)	17.0 (3)	(3)											
Light commercial vehicles	22.3 (5)	20.0 (4)	22.6 (5)	17.2 (5)	18.0 (4)	16.4 (4)	18.8 (5)	26.7 (6)	20.7 (2)	(2)											
Rigid trucks	85.0 (5)	87.2 (4)	95.5 (4)	104.9 (5)	81.9 (4)	88.9 (4)	108.1 (7)	111.1 (4)	89.8 (2)	(2)											
Articulated trucks	23.5 (16)	15.4 (16)	20.0 (11)	11.7 (18)	* 13.8 (25)	4.4 (13)	17.1 (23)	* 14.8 (33)	16.2 (7)	(7)											
Non-freight carrying trucks	33.6 (4)	27.8 (5)	34.5 (5)	43.0 (5)	36.7 (6)	23.1 (6)	35.5 (5)	39.6 (5)	33.2 (2)	(2)	<b>Total</b>	<b>14.3 (8)</b>	<b>18.0 (9)</b>	<b>16.9 (7)</b>	<b>13.8 (6)</b>	<b>14.1 (7)</b>	<b>13.2 (8)</b>	<b>18.0 (5)</b>	<b>12.6 (13)</b>	<b>15.5 (4)</b>	<b>(4)</b>
<b>Total</b>	<b>14.3 (8)</b>	<b>18.0 (9)</b>	<b>16.9 (7)</b>	<b>13.8 (6)</b>	<b>14.1 (7)</b>	<b>13.2 (8)</b>	<b>18.0 (5)</b>	<b>12.6 (13)</b>	<b>15.5 (4)</b>	<b>(4)</b>											

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

TABLE 19. TOTAL LADEN BUSINESS KILOMETRES TRAVELLED BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

Type of vehicle	State/Territory of registration (Million kilometres)									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
Light commercial vehicles	3,208 (8)	2,711 (7)	2,998 (9)	808 (6)	1,266 (8)	261 (8)	128 (7)	177 (6)	11,558 (4)	
Rigid trucks	1,608 (5)	1,110 (5)	1,006 (5)	322 (6)	488 (4)	101 (4)	48 (7)	57 (7)	4,740 (2)	
Articulated trucks	868 (7)	1,156 (5)	794 (5)	438 (6)	337 (6)	93 (4)	69 (7)	23 (6)	3,778 (3)	
<b>Total</b>	<b>5,685 (5)</b>	<b>4,976 (4)</b>	<b>4,798 (6)</b>	<b>1,568 (4)</b>	<b>2,092 (5)</b>	<b>456 (5)</b>	<b>245 (4)</b>	<b>256 (5)</b>	<b>20,076 (2)</b>	

TABLE 20. AVERAGE LADEN BUSINESS KILOMETRES (a) TRAVELLED BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

Type of vehicle	State/Territory of registration (*000 kilometres)									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
Light commercial vehicles	13.3 (6)	13.4 (6)	16.3 (9)	11.3 (5)	13.5 (7)	10.2 (7)	13.4 (6)	16.6 (5)	13.8 (3)	
Rigid trucks	16.7 (5)	15.1 (5)	16.9 (5)	13.0 (6)	13.1 (4)	11.7 (4)	15.1 (6)	21.0 (7)	15.5 (2)	
Articulated trucks	60.2 (6)	68.0 (5)	73.2 (5)	85.5 (5)	56.3 (5)	58.9 (4)	73.6 (7)	84.0 (5)	67.3 (2)	
<b>Total</b>	<b>16.2 (4)</b>	<b>17.0 (4)</b>	<b>18.9 (6)</b>	<b>15.4 (3)</b>	<b>15.2 (4)</b>	<b>12.7 (4)</b>	<b>17.9 (4)</b>	<b>18.8 (4)</b>	<b>16.7 (2)</b>	

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

**TABLE 21. TOTAL TONNE-KILOMETRES BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**  
(Million tonne-kilometres)

Type of vehicle	State/Territory of registration									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)
Light commercial vehicles	1,217 (9)	1,202 (8)	1,246 (12)	330 (7)	582 (12)	105 (10)	43 (11)	74 (9)	4,799 (5)	
Rigid trucks	7,737 (8)	5,599 (8)	5,291 (7)	1,749 (9)	3,473 (10)	630 (9)	* 305 (26)	259 (18)	25,044 (4)	
Articulated trucks	18,758 (7)	23,770 (5)	19,129 (6)	10,362 (6)	11,201 (8)	2,081 (4)	3,583 (9)	500 (7)	89,384 (3)	
<b>Total</b>	<b>27,713 (5)</b>	<b>30,571 (4)</b>	<b>25,666 (4)</b>	<b>12,442 (5)</b>	<b>15,256 (6)</b>	<b>2,816 (4)</b>	<b>3,932 (8)</b>	<b>833 (7)</b>	<b>119,227 (2)</b>	

**TABLE 22. AVERAGE TONNE-KILOMETRES (a) BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**  
('000 tonne-kilometres)

Type of vehicle	State/Territory of registration									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)
Light commercial vehicles	5.1 (8)	6.0 (8)	6.8 (11)	4.6 (7)	6.2 (11)	4.1 (9)	4.5 (11)	7.0 (9)	5.7 (4)	
Rigid trucks	80.3 (8)	76.3 (8)	88.9 (7)	70.5 (9)	92.9 (9)	72.4 (9)	* 95.7 (26)	96.5 (18)	81.8 (4)	
Articulated trucks	1,302.2 (7)	1,399.5 (5)	1,762.6 (5)	2,023.0 (6)	1,867.9 (7)	1,314.1 (4)	3,849.1 (8)	1,862.9 (5)	1,592.0 (3)	
<b>Total</b>	<b>78.9 (6)</b>	<b>104.7 (5)</b>	<b>101.3 (5)</b>	<b>122.4 (6)</b>	<b>111.2 (6)</b>	<b>78.4 (5)</b>	<b>287.1 (9)</b>	<b>61.4 (7)</b>	<b>99.5 (2)</b>	

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

**TABLE 23. TOTAL TONNE-KILOMETRES BY TYPE OF VEHICLE, STATE/TERRITORY OF OPERATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**  
(Million tonne-kilometres)

Type of vehicle	State/Territory of operation									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)
Light commercial vehicles	1,263 (9)	1,206 (8)	1,183 (10)	341 (8)	586 (12)	105 (10)	48 (15)	66 (10)	4,799 (5)	
Rigid trucks	7,997 (8)	5,444 (8)	5,238 (7)	1,786 (10)	3,448 (10)	627 (9)	* 325 (25)	179 (12)	25,044 (4)	
Articulated trucks	27,743 (5)	18,866 (5)	16,058 (5)	9,201 (7)	12,263 (7)	2,080 (5)	2,955 (10)	218 (20)	89,384 (3)	
<b>Total</b>	<b>37,003 (4)</b>	<b>25,516 (4)</b>	<b>22,479 (4)</b>	<b>11,328 (6)</b>	<b>16,297 (6)</b>	<b>2,813 (4)</b>	<b>3,329 (9)</b>	<b>463 (10)</b>	<b>119,227 (2)</b>	

**TABLE 24. AVERAGE TONNE-KILOMETRES (a) BY TYPE OF VEHICLE, STATE/TERRITORY OF OPERATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**  
('000 tonne-kilometres)

Type of vehicle	State/Territory of operation									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)
Light commercial vehicles	4.5 (8)	5.6 (8)	5.8 (9)	4.2 (7)	6.1 (11)	4.1 (9)	3.6 (14)	3.1 (17)	5.7 (4)	
Rigid trucks	75.4 (8)	69.7 (8)	84.1 (7)	66.4 (10)	91.6 (10)	70.6 (9)	* 95.1 (25)	32.1 (14)	81.8 (4)	
Articulated trucks	1,091.0 (4)	785.7 (5)	915.8 (5)	910.6 (6)	1,615.0 (7)	1,236.0 (5)	1,712.0 (11)	156.3 (17)	1,592.0 (3)	
<b>Total</b>	<b>89.2 (5)</b>	<b>80.3 (5)</b>	<b>79.3 (5)</b>	<b>95.5 (6)</b>	<b>115.2 (6)</b>	<b>77.6 (5)</b>	<b>180.5 (12)</b>	<b>16.5 (15)</b>	<b>99.5 (2)</b>	

(a) See paragraphs 10-11 of Explanatory Notes on average concept. It is important to note that the average tonne-kilometres in this table, based on the State of operation of the vehicles, will be different from the average tonne-kilometres in Table 22 which are based on the State of registration of the vehicles.

**TABLE 25. RIGID TRUCKS: TOTAL TONNE-KILOMETRES BY NUMBER OF AXLES  
AND GROSS VEHICLE MASS/GROSS COMBINATION MASS, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995**

Number of axles	(Million tonne-kilometres)		
	Gross vehicle mass/Gross combination mass (tonnes)		
	8 and under	Over 8 to 20	Over 20
	RSE(%)	RSE(%)	RSE(%)
2 axles	2,992 (5)	6,860 (5)	755 (20)
3 axles	* 81 (34)	775 (14)	10,406 (8)
4 or more axles	n.a.	* 74 (44)	3,102 (16)
<b>Total rigid trucks</b>	<b>3,073 (5)</b>	<b>7,708 (5)</b>	<b>14,263 (6)</b>
			<b>25,044 (4)</b>

**TABLE 26. RIGID TRUCKS: AVERAGE TONNE-KILOMETRES (a) BY NUMBER OF AXLES  
AND GROSS VEHICLE MASS/GROSS COMBINATION MASS, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995**

Number of axles	('000 tonne-kilometres)		
	Gross vehicle mass/Gross combination mass (tonnes)		
	8 and under	Over 8 to 20	Over 20
	RSE(%)	RSE(%)	RSE(%)
2 axles	22.7 (5)	57.9 (5)	193.6 (18)
3 axles	41.2 (23)	67.0 (12)	335.8 (7)
4 or more axles	n.a.	* 180.7 (28)	436.3 (14)
<b>Total rigid trucks</b>	<b>23.0 (5)</b>	<b>59.1 (4)</b>	<b>339.6 (6)</b>
			<b>81.8 (4)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

TABLE 27. ARTICULATED TRUCKS: TOTAL TONNE-KILOMETRES BY TYPE OF TRAILER CONFIGURATION AND GROSS COMBINATION MASS, AUSTRALIA 12 MONTHS ENDED 30 SEPTEMBER 1995

Type of trailer configuration	(Million tonne-kilometres)		
	Gross combination mass (tonnes)		
	30 and under	Over 30 to 40	Over 40
	RSE(%)	RSE(%)	RSE(%)
Single axle trailer	n.p.	**	n.a.
Tandem axle trailer	1,016 (20)	4,023 (12)	2,987 (17)
Triaxle trailer	* 806 (27)	6,082 (12)	48,235 (4)
B-Double	n.a.	n.a.	9,111 (15)
Road train	n.a.	n.a.	14,945 (9)
Other	n.p.	**	1,420 (24)
<b>Total articulated trucks</b>	<b>2,074 (14)</b>	<b>10,612 (8)</b>	<b>76,697 (3)</b>
			<b>89,384 (3)</b>

TABLE 28. ARTICULATED TRUCKS: AVERAGE TONNE-KILOMETRES (a) BY TYPE OF TRAILER CONFIGURATION AND GROSS COMBINATION MASS, AUSTRALIA 12 MONTHS ENDED 30 SEPTEMBER 1995

Type of trailer configuration	('000 tonne-kilometres)		
	Gross combination mass (tonnes)		
	30 and under	Over 30 to 40	Over 40
	RSE(%)	RSE(%)	RSE(%)
Single axle trailer	109.6 (24)	**	n.a.
Tandem axle trailer	224.7 (17)	537.7 (10)	1,031.8 (14)
Triaxle trailer	606.1 (20)	961.6 (9)	1,941.1 (3)
B-Double	n.a.	n.a.	5,026.7 (9)
Road train	n.a.	n.a.	5,089.6 (6)
Other	n.p.	1,707.0 (24)	1,890.1 (15)
<b>Total articulated trucks</b>	<b>254.4 (12)</b>	<b>719.6 (7)</b>	<b>2,307.1 (3)</b>
			<b>1,592.0 (3)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

**TABLE 29. TOTAL TONNES CARRIED BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**  
(Million tonnes)

Type of vehicle	State/Territory of registration									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
Light commercial vehicles	23 (10)	26 (10)	23 (10)	9 (9)	14 (14)	3 (11)	1 (10)	1 (10)	100 (5)	
Rigid trucks	173 (8)	120 (8)	162 (12)	43 (6)	82 (7)	24 (17)	5 (12)	6 (8)	614 (4)	
Articulated trucks	134 (8)	127 (7)	104 (8)	35 (9)	75 (9)	20 (5)	10 (13)	2 (10)	508 (4)	
<b>Total</b>	<b>331 (5)</b>	<b>273 (5)</b>	<b>289 (7)</b>	<b>87 (5)</b>	<b>171 (5)</b>	<b>47 (9)</b>	<b>16 (9)</b>	<b>10 (6)</b>	<b>1,222 (3)</b>	

**TABLE 30. AVERAGE LOAD CARRIED (a) BY TYPE OF VEHICLE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995**  
(Kilograms)

Type of vehicle	State/Territory of registration									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Australia	
Light commercial vehicles	386 (5)	402 (3)	390 (4)	394 (4)	392 (5)	387 (4)	291 (4)	368 (5)	391 (2)	
Rigid trucks	3,960 (3)	3,970 (3)	4,198 (3)	4,995 (3)	5,646 (3)	4,521 (3)	3,833 (5)	3,286 (4)	4,307 (1)	
Articulated trucks	19,856 (3)	17,959 (2)	22,339 (3)	21,319 (2)	26,117 (3)	21,162 (2)	41,608 (4)	21,314 (2)	20,969 (1)	
<b>Total</b>	<b>2,170 (3)</b>	<b>2,320 (3)</b>	<b>2,230 (3)</b>	<b>2,572 (3)</b>	<b>2,959 (3)</b>	<b>2,310 (3)</b>	<b>3,950 (4)</b>	<b>1,360 (3)</b>	<b>2,359 (1)</b>	

(a) See paragraphs 10-11 of Explanatory Notes on average concept.

TABLE 31. TOTAL TONNES CARRIED BY COMMODITY AND TYPE OF VEHICLE, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995

(Million tonnes)

Commodity carried	Type of vehicle			Total	RSE(%)
	Light commercial vehicles	Rigid trucks	Articulated trucks		
Food and live animals	11 (14)	80 (11)	106 (7)	196 (6)	
Beverages and tobacco	* 1 (42)	* 11 (26)	9 (19)	20 (16)	
Crude materials, inedible, except fuels	* 5 (32)	267 (8)	150 (8)	422 (6)	
Mineral fuels, lubricants and related materials	2 (16)	21 (19)	47 (13)	70 (10)	
Animal and vegetable oils, fats and waxes	* — (45)	* 2 (42)	* 2 (32)	* 5 (26)	
Chemicals and related products, not elsewhere specified	3 (19)	* 17 (41)	9 (19)	* 29 (25)	
Manufactured goods	12 (12)	84 (7)	83 (9)	179 (5)	
Machinery, transport equipment	9 (16)	26 (11)	34 (12)	69 (7)	
Miscellaneous manufactured articles	3 (20)	11 (13)	* 6 (33)	20 (12)	
Tools of trade	40 (5)	26 (11)	* 3 (26)	70 (5)	
Other commodities, not elsewhere specified	13 (13)	69 (10)	59 (10)	142 (7)	
<b>Total</b>	<b>100 (4)</b>	<b>614 (4)</b>	<b>508 (3)</b>	<b>1,222 (2)</b>	



**TABLE 32. BUSES: TOTAL KILOMETRES TRAVELLED BY TYPE OF BUS AND MAIN TYPE OF SERVICE, AUSTRALIA**  
12 MONTHS ENDED 30 SEPTEMBER 1995

Type of bus	Main type of service					Total (a)	RSE(%)
	Route service	Dedicated school bus service	Charter service	Tour service	Other		
Buses with fewer than 20 seats	* 17 (34)	64 (14)	52 (19)	23 (22)	265 (7)	421 (5)	(5)
Buses with 20 or more seats	545 (5)	238 (7)	145 (11)	47 (21)	38 (17)	1,013 (3)	(3)
<b>Total</b>	<b>562 (5)</b>	<b>302 (6)</b>	<b>198 (9)</b>	<b>70 (16)</b>	<b>304 (6)</b>	<b>1,435 (2)</b>	<b>(2)</b>

(a) Excluding distance travelled by buses used exclusively for private purposes, as well as travel by some buses where main type of service could not be obtained.

**TABLE 33. BUSES: AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF BUS AND MAIN TYPE OF SERVICE, AUSTRALIA**  
12 MONTHS ENDED 30 SEPTEMBER 1995

Type of bus	Main type of service					Total (b)	RSE(%)
	Route service	Dedicated school bus service	Charter service	Tour service	Other		
Buses with fewer than 20 seats	* 27.8 (26)	23.6 (7)	32.3 (11)	31.6 (14)	23.2 (5)	24.6 (4)	(4)
Buses with 20 or more seats	55.4 (3)	24.6 (4)	46.4 (7)	60.9 (13)	20.5 (13)	40.1 (3)	(3)
<b>Total</b>	<b>53.7 (3)</b>	<b>24.4 (3)</b>	<b>41.6 (6)</b>	<b>46.9 (11)</b>	<b>22.8 (4)</b>	<b>33.9 (2)</b>	<b>(2)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept. (b) Excluding distance travelled by buses used exclusively for private purposes, as well as travel by some buses where main type of service could not be obtained.

TABLE 34. BUSES: TOTAL KILOMETRES TRAVELLED BY MAIN TYPE OF SERVICE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

State/Territory of registration	(Million kilometres)			
	Main type of service			
	Route service	Dedicated school bus service	Charter service	Total (b)
	RSE(%)	RSE(%)	RSE(%)	RSE(%)
New South Wales	172 (10)	98 (11)	66 (18)	61 (15)
Victoria	93 (13)	74 (13)	51 (20)	79 (13)
Queensland	101 (14)	62 (13)	36 (18)	100 (10)
South Australia	79 (5)	23 (13)	19 (23)	*15 (26)
Western Australia	74 (11)	28 (19)	*12 (32)	69 (14)
Tasmania	17 (14)	10 (12)	4 (24)	9 (17)
Northern Territory	*7 (25)	n.p.	n.p.	37 (8)
Australian Capital Territory	20 (5)	n.s.	n.p.	*4 (27)
<b>Australia</b>	<b>562 (5)</b>	<b>302 (6)</b>	<b>198 (9)</b>	<b>374 (5)</b>
				<b>1,435 (2)</b>

(a) Includes tour service operations. (b) Excluding distance travelled by buses used exclusively for private purposes, as well as travel by some buses where main type of service could not be obtained.

TABLE 35. BUSES: AVERAGE KILOMETRES TRAVELLED (a) BY MAIN TYPE OF SERVICE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

State/Territory of registration	('000 kilometres)			
	Main type of service			
	Route service	Dedicated school bus service	Charter service	Total (c)
	RSE(%)	RSE(%)	RSE(%)	RSE(%)
New South Wales	47.9 (7)	26.0 (7)	46.0 (12)	21.5 (10)
Victoria	44.7 (7)	22.6 (7)	43.2 (11)	20.5 (10)
Queensland	68.5 (11)	25.5 (8)	36.1 (12)	28.3 (8)
South Australia	72.2 (4)	22.6 (7)	44.5 (14)	24.8 (24)
Western Australia	57.9 (8)	28.3 (9)	33.1 (16)	31.3 (11)
Tasmania	46.3 (7)	15.1 (8)	24.6 (17)	17.9 (14)
Northern Territory	47.4 (10)	27.1 (9)	62.9 (14)	33.3 (6)
Australian Capital Territory	45.2 (5)	n.s.	46.7 (19)	22.2 (18)
<b>Australia</b>	<b>53.7 (3)</b>	<b>24.4 (3)</b>	<b>41.6 (6)</b>	<b>25.2 (4)</b>
				<b>33.9 (2)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept. (b) Includes tour service operations. (c) Excluding distance travelled by buses used exclusively for private purposes, as well as travel by some buses where main type of service could not be obtained.

TABLE 36. BUSES: TOTAL PASSENGERS CARRIED BY TYPE OF BUS AND MAIN TYPE OF SERVICE, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995

Type of bus	(Million passengers)				
	Main type of service				
	Route service	Dedicated school bus service	Charter service	Other (a)	Total (b)
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)
Buses with fewer than 20 seats	* 3 (29)	15 (15)	5 (21)	23 (11)	45 (8)
Buses with 20 or more seats	708 (7)	194 (7)	52 (15)	15 (22)	968 (5)
<b>Total</b>	<b>711 (7)</b>	<b>208 (7)</b>	<b>57 (13)</b>	<b>38 (11)</b>	<b>1,013 (5)</b>

(a) Includes tour service operations. (b) Excludes passengers carried by buses used exclusively for private purposes

TABLE 37. BUSES: TOTAL PASSENGERS CARRIED BY MAIN TYPE OF SERVICE, STATE/TERRITORY OF REGISTRATION  
12 MONTHS ENDED 30 SEPTEMBER 1995

State/Territory of registration	(Million passengers)				
	Main type of service				
	Route service	Dedicated school bus service	Charter service	Other (a)	Total (b)
	RSE(%)	RSE(%)	RSE(%)	RSE(%)	RSE(%)
New South Wales	306 (15)	95 (12)	* 19 (26)	* 5 (27)	425 (11)
Victoria	129 (15)	46 (15)	* 18 (27)	* 10 (31)	203 (9)
Queensland	104 (11)	38 (11)	9 (21)	12 (17)	163 (6)
South Australia	61 (4)	11 (17)	* 5 (31)	* 2 (36)	78 (4)
Western Australia	59 (11)	8 (19)	* 3 (40)	6 (18)	76 (8)
Tasmania	14 (13)	9 (12)	* 1 (28)	1 (20)	24 (8)
Northern Territory	* 12 (31)	n.p.	n.p.	3 (19)	16 (22)
Australian Capital Territory	25 (6)	n.s.	**	* 1 (37)	28 (6)
<b>Australia</b>	<b>711 (7)</b>	<b>208 (7)</b>	<b>57 (13)</b>	<b>38 (11)</b>	<b>1,013 (5)</b>

(a) Includes tour service operations. (b) Excludes passengers carried by buses used exclusively for private purposes

TABLE 38. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE, AGE GROUP AND SEX OF DRIVER, AUSTRALIA  
12 MONTHS ENDED 30 SEPTEMBER 1995

Type of vehicle (b)	('000 kilometres)					
	Age group of driver (years)			Total (c)		
	15 to 24	25 to 54	55 and over	RSE(%)	RSE(%)	RSE(%)
	MALES					
Passenger vehicles	11.4 (15)	10.1 (5)	8.2 (7)			10.0 (4)
Motor cycles	5.1 (16)	5.1 (10)	2.2 (24)			4.9 (8)
Light commercial vehicles	11.4 (7)	14.1 (3)	10.5 (7)			13.3 (2)
Rigid trucks	10.1 (11)	14.4 (3)	9.3 (7)			13.7 (2)
Articulated trucks	43.6 (18)	60.5 (2)	40.6 (8)			60.1 (2)
Non-freight carrying trucks	* 18.7 (36)	7.6 (12)	5.4 (24)			8.4 (8)
<b>Total</b>	<b>11.2 (12)</b>	<b>11.5 (3)</b>	<b>8.6 (6)</b>			<b>11.1 (3)</b>
	FEMALES					
Passenger vehicles	6.0 (12)	9.0 (5)	5.8 (8)			8.0 (4)
Motor cycles	* 3.6 (42)	3.2 (22)	n.s.			3.1 (21)
Light commercial vehicles	4.5 (18)	5.0 (9)	3.8 (16)			4.8 (7)
Rigid trucks	* 4.9 (33)	3.9 (22)	* 1.5 (35)			3.8 (19)
Articulated trucks	n.s.	* 20.5 (48)	n.s.			* 17.2 (49)
Non-freight carrying trucks	n.s.	* 3.2 (27)	n.s.			3.4 (22)
<b>Total</b>	<b>5.9 (11)</b>	<b>8.6 (5)</b>	<b>5.7 (8)</b>			<b>7.8 (4)</b>
	PERSONS					
Passenger vehicles	9.0 (12)	9.5 (4)	7.3 (6)			9.1 (4)
Motor cycles	4.9 (15)	5.0 (9)	2.1 (24)			4.8 (8)
Light commercial vehicles	10.0 (6)	12.1 (3)	9.6 (6)			11.7 (3)
Rigid trucks	9.9 (11)	14.0 (3)	9.1 (7)			13.3 (2)
Articulated trucks	42.7 (18)	60.2 (2)	40.6 (8)			59.8 (2)
Non-freight carrying trucks	* 17.9 (36)	7.3 (12)	5.3 (24)			8.1 (8)
<b>Total</b>	<b>9.1 (10)</b>	<b>10.3 (3)</b>	<b>7.6 (5)</b>			<b>9.8 (3)</b>

(a) See paragraphs 10-11 of Explanatory Notes on average concept. These estimates include details reported for the five drivers (where applicable) who travelled the most distance in the selected vehicle; but they do not take into account the possibility of a driver driving more than one vehicle during the survey period. It is therefore likely that this survey underestimates the average distance driven by an individual who drove two or more vehicles during the survey period. (b) Buses are excluded from the calculation for average kilometres in this table. (c) Includes drivers whose age was not stated.

## EXPLANATORY NOTES

### INTRODUCTION

**1** This publication contains statistics relating to motor vehicle use in Australia for the 12 months ended 30 September 1995. The data were collected in a sample survey conducted by the ABS throughout Australia. This is the ninth survey of motor vehicle use conducted since 1963. As in previous surveys, respondents were asked to provide information on the use of selected motor vehicles for the 12 months ended 30 September 1995 or that part for which they were the registered owners.

**2** The statistics contained in this publication are regarded as preliminary because they are affected by some degree of reporting bias caused by the collection methodology employed for the survey. A review of the current and possible new methodologies is now being undertaken. It is expected that when information to measure and reduce the degree of reporting bias becomes available from this review, the estimates contained in this publication will be adjusted to produce final estimates which will be available in late 1997.

### SCOPE

**3** The population for the survey includes all vehicles which were registered for road use at 31 May 1995 with a motor vehicle registration authority, except caravans, trailers, tractors, plant and equipment, vehicles belonging to the defence services and vehicles with diplomatic or consular plates. Where they could be separately identified, vintage and veteran cars were also excluded from the survey. The population was identified using information obtained from the State and Territory motor vehicle registration authorities.

### METHODOLOGY

**4** The vehicle population (of 10.9 million vehicles) was stratified within each State or Territory according to body type as recorded by the appropriate registration authority. Each vehicle-type category was further stratified by other characteristics of the vehicles to take account of different usage patterns: motor cycles according to their engine capacity, buses according to their age and seating capacity, passenger vehicles according to their age and size and other commercial vehicles according to their vehicle type, age and size. This stratification method followed that of the previous survey conducted in 1991.

**5** Approximately 22,200 vehicles were selected for the 1995 Survey of Motor Vehicle Use. Of these, 14% were passenger vehicles and motor cycles, 75% were freight-carrying vehicles and 11% were buses. The sample size was chosen to give a suitable level of precision at the State/Territory level for each vehicle-type category for total distance travelled.

**6** Mail questionnaires were dispatched in October 1995. Three types of questionnaires were used: one for passenger vehicles (cars, station wagons, passenger vans and motor cycles); one for freight vehicles (utilities, goods-carrying vans, rigid and articulated trucks) and one for buses (passenger vehicles with 10 or more seats including the driver's).

**7** Where the selected vehicle owner had not owned the vehicle for the whole survey year, the details provided for the period of ownership were adjusted to give a 12-month equivalent. The statistics therefore relate to the annual rate of use of vehicles during the 12 months ended 30 September 1995. Part year details reported in respect of seasonal use vehicles were not adjusted.

## VEHICLE CLASSIFICATION

**8** The vehicle type categories used for the 1995 survey are the same as in 1991. As in previous surveys, the results are classified by the type of vehicle as reported by the vehicle owner rather than as recorded by the motor vehicle registration authorities.

## COMPARISON WITH MOTOR VEHICLE CENSUS DATA

**9** Survey estimates of numbers of vehicles, by vehicle type, as at 30 September 1995 may not be fully consistent with the count of vehicles on register with State and Territory registration authorities on 30 September 1995 or with the Motor Vehicle Census (see *Motor Vehicle Census Australia, 31 May 1995 (9309.0)*). The main reasons for such differences are:

- the classification of vehicles in the survey to the 'as reported' vehicle type which may differ from the type of vehicle recorded by the motor registries;
- the exclusion from the survey of vehicles on the register which fall outside the survey's scope e.g. consular and diplomatic vehicles and vintage and veteran cars where they could be identified;
- the inclusion of campervans with passenger vehicles rather than with non-freight-carrying trucks as in the census; and
- the use of a sample rather than a complete enumeration of the population (discussed under Reliability Of Estimates in paragraphs 12-16).

## CONCEPTS OF AVERAGES

**10** Many tables in this publication present data as averages. The denominator used in calculating these averages is the estimated number of vehicles that contributed to a particular cell. For example, in table 14 the average kilometres travelled for business purposes in Australia by passenger vehicles was derived by dividing the number of kilometres travelled for business purposes by passenger vehicles by the number of such vehicles which reported business travel. As the denominators used to calculate the cells of a table are different, the averages along a row cannot be used to derive the total column entry for that row.

**11** For tables 4 and 6, all vehicles in the appropriate category are included in the denominator regardless of distance travelled. Vehicles which travelled zero kilometres are included in the estimation process as they are representative of unused vehicles that are likely to occur across the vehicle population. In table 8, the average rate of fuel consumption is calculated by dividing the total fuel consumption by total kilometres for each vehicle type. For tables 10, 12, 14, 16 and 18 however, vehicles that travelled zero distance are excluded from the denominator as the tables relate to actual vehicle usage. In tables 14 and 16, the average kilometres travelled for business purposes were derived by dividing the number of kilometres travelled for business purposes by the number of such vehicles used for business purposes.

## RELIABILITY OF ESTIMATES

**12** Since the estimates for motor vehicle use are based on data obtained from a sample survey rather than a complete enumeration, the data are subject to sampling variability. That is, they may differ from the figures that would have been obtained if all units had been included. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of units was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all units had been included, and about 19 chances in 20 that the difference will be less than two standard errors.

**13** 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.

**14** As an example of the above, in table 4, the estimate of average kilometres for all vehicles registered in Australia was 15,200 kilometres with a RSE of 2% of the estimate, i.e. 304 kilometres. That is, there are about two chances in three that the value that would have been obtained from a complete enumeration would have been in the range 14,896 kilometres to 15,504 kilometres and about 19 chances in 20 that it would have been in the range 14,592 kilometres to 15,808 kilometres.

**15** In this publication, only estimates with a RSE of less than 25% are considered sufficiently reliable for most purposes. Estimates with a RSE from 25% to 49.9% are preceded by a single asterisk (\*) while those with a RSE of 50% or more are replaced with two asterisks (\*\*).

**16** Sampling error is not the only type of inaccuracy which affects the reliability of the data. Other types of error, referred to as non-sampling error, can be present in any type of collection, whether it be a complete enumeration or a sample survey. For example, non-sampling error can occur because of non-response to the survey, imperfections in reporting by respondents, definition or classification difficulties, or errors in transcribing and processing the data. While the effects of non-sampling error are not quantifiable, every effort is made to minimise the impact through the design and testing of questionnaires and the use of efficient operating procedures.

## DATA QUALITY

**17** The ABS has been concerned at the extent of non-sampling error in its surveys of motor vehicle use. In particular, it is likely that the current collection methodology is flawed because of its dependence on the so-called 'recall methodology' for collecting motor vehicle use information from respondents. Most private vehicle owners do not keep detailed records to provide the requested statistics. The degree of record keeping by freight vehicle and bus owners is better, but it is by no means complete or systematic. This has led to two main types of observable deficiencies with the quality of data entered on survey questionnaires: firstly, where respondents have failed to provide a figure for particular questions, even after follow-up contact from the ABS; and secondly, where respondents have only been able to provide rounded figures for the questions about distance travelled. It is thought that rounding by respondents results in biased estimates of total distance travelled.

**18** Where questionnaires remained incomplete and the missing information could not be obtained by the end of processing the survey, missing items were systematically filled by imputing average data from like vehicles with similar usage patterns for which complete data were obtained. A considerable effort was made to follow up respondents who provided incomplete data, but notwithstanding the extra information obtained in this process, the need for imputation of unfilled items was quite high, with 24% of all usable questionnaires returned needing one or more items to be imputed. In particular, the average rate of fuel consumption needed to be imputed for 13% of all the vehicles in the survey, while total distance travelled needed 4% imputation.

**19** In respect of the problem of rounding of reported values, 17% of all usable questionnaires reported total distance travelled during the year rounded to the nearest 10,000 kilometres. This is a significant improvement

on the 1991 survey where this figure was in excess of 50%. However, it must be recognised that even the lesser instance of gross rounding in 1995 naturally limits the reliability of the survey results.

**20** Although extensive editing of reported data was undertaken to ensure consistency of results, and while the designed response rates were achieved for the 1995 survey, the above comments highlight the broad indicative-only nature of some of the estimates. Users should therefore contact the ABS if they have any queries on the quality and reliability of estimates for particular purposes. It is the responsibility of the user to exercise the necessary caution in using the estimates in this publication.

#### NEW COLLECTION METHODOLOGIES

**21** In light of these concerns about data quality, an extensive review of the methods employed to obtain vehicle use data commenced in 1995 and will continue throughout 1996. A number of methodological options designed to reduce non-sampling error are being trialed during this period.

**22** The new methodology would probably include odometer readings taken at the start and end of specified periods for selected vehicles, to provide estimates of total distance travelled without the recall bias inherent in the current methodology.

**23** It is anticipated that final broad recommendations about the new methodology will be determined by the end of 1996, with the ABS looking to implement the new methodology from mid 1997.

**24** Because of the importance of time-series data to users, it is intended to produce a set of factors to 'bridge' between the old and new methodologies. These factors would be based on total distance travelled using both the old recall methodology and the matched odometer readings component of the new methodology, for the 12-month period ending 30 September 1996.

#### UNPUBLISHED STATISTICS

**25** As well as the statistics included in this publication, the ABS has unpublished data available for a charge. An information kit outlining various options is available. Inquiries should be directed to the contact officer named in the inquiries box at the front of this publication.

#### RELATED PUBLICATIONS

**26** Users may also wish to refer to the following publications containing statistics relating to motor vehicle registrations in Australia:

*Motor Vehicle Census, Australia, 31 May 1995 (9309.0)* — issued annually from 1995

*Registrations of New Motor vehicles, Australia, Preliminary (9301.0)* — issued monthly

*Motor Vehicles in Australia (9311.0)* — first issue expected to be released in November 1996

#### SYMBOLS AND OTHER USAGES

n.a. not available

n.p. not available for publication but included in totals where applicable

n.s. number suppressed — sample is too small to provide a reliable estimate but included in totals where applicable

\* relative standard error of between 25% and 49.9%

\*\* relative standard error of 50% or more

.. not applicable

— nil or rounded to zero

Where figures have been rounded, discrepancies may occur between sums of the component items and totals.



## GLOSSARY

- Articulated trucks** Motor vehicles constructed primarily for load carrying, consisting of a prime mover and one or more semi-trailers.
- Average load carried** Average load carried is calculated by averaging the average loads reported by each vehicle owner.
- B-Doubles** A B-Double combination consists of a prime mover towing two semi-trailers. The first trailer includes a turntable which links to the second trailer, rather than using a dolly to link the trailers as in road train configurations.
- Buses** Motor vehicles constructed for the carriage of passengers. Included are all passenger 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 whether the vehicle was predominantly used for private purposes, 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-carrying vehicles, i.e. light commercial vehicles, rigid trucks and articulated trucks.
- Capital city** These are the capital city Statistical Divisions as defined in the Australian Standard Geographical Classification (ASGC), Edition 2.4.
- 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.

<b>Commodity carried</b>	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'.
<b>Dolly</b>	A device intended to link two semi-trailers or a rigid truck and a semi-trailer.
<b>Freight-carrying vehicles</b>	Consists of light commercial vehicles, rigid trucks and articulated trucks.
<b>Fuel consumption</b>	Total fuel consumption is calculated by adding the product of total kilometres travelled and reported average fuel consumption for each vehicle. The average rate of fuel consumption is calculated by dividing the total fuel consumption by total kilometres for each vehicle type.
<b>Gross Combination Mass (GCM)</b>	Tare weight (i.e. unladen weight) of the vehicle plus its maximum carrying and towing capacity. In the survey, this was obtained for vehicles operated in combination (e.g. a prime mover/semi-trailer combination, or a rigid truck/trailer combination).
<b>Gross Vehicle Mass (GVM)</b>	Tare weight (i.e. unladen weight) of the vehicle, plus its maximum carrying capacity. In the survey, this was obtained for buses and rigid trucks not usually towing trailers.
<b>Light commercial vehicles</b>	Motor vehicles constructed primarily for the carriage of goods and not exceeding 3.5 tonnes gross vehicle mass (GVM). Included are utilities (4WD, 2WD, single or dual cabs) and goods carrying vans.
<b>Non-freight-carrying trucks</b>	Specialist vehicles or vehicles fitted with special purpose equipment, and having little or no goods carrying capacity, e.g. ambulances, mobile cranes, cherry pickers, fire trucks and tow trucks.
<b>Other Urban Areas</b>	<p>These are defined in the Australian Standard Geographical Classification (ASGC), Edition 2.4 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 1991 Population Census.</p> <p>New South Wales — within the areas of Newcastle, Wollongong, Bathurst-Orange, Maitland, Albury (excluding Wodonga), Wagga Wagga, Tweed Heads (excluding Gold Coast), Queanbeyan (excluding Canberra ACT), Lismore, Coffs Harbour, Greater Taree, Hastings and Shoalhaven.</p> <p>Victoria — within the areas of Geelong, Ballarat, Bendigo and Wodonga (excluding Albury).</p> <p>Queensland — within the areas of Gold Coast (excluding Tweed Heads), Sunshine Coast, Bundaberg, Rockhampton, Mackay, Townsville, Cairns and Toowoomba.</p> <p>Tasmania — within the areas of Launceston, Burnie, Devonport, Penguin, Ulverstone, Wynyard and Latrobe.</p> <p>This category is not applicable in South Australia, Western Australia, the Northern Territory and the Australian Capital Territory.</p>

<b>Passenger vehicles</b>	Motor vehicles constructed primarily for the carriage of up to nine passengers (including the driver). Included are cars, station wagons, 4WD passenger vehicles, passenger vans and campervans.
<b>Prime Movers</b>	Motor vehicles constructed primarily for towing semi-trailers. Prime movers have no significant load-carrying area but are fitted with a turntable for linking to a semi-trailer.
<b>Purpose</b>	Used to classify annual kilometres travelled by vehicles into the categories 'business' (laden-unladen), 'to and from work' and 'private'.
<b>Rigid trucks</b>	Motor vehicles exceeding 3.5 tonnes GVM, constructed primarily for load carrying. Included are rigid trucks equipped to tow a trailer or dolly, but not a semi-trailer.
<b>Road trains</b>	Motor vehicles comprising a prime mover hauling two or more trailers and employing a dolly or a rigid truck hauling two or more trailers (except in Qld where rigid trucks towing a single trailer with a combination length greater than 19 metres are included).
<b>Relative Standard Error (RSE)</b>	For more information, refer to the Reliability Of Estimates, in paragraphs 13-15 of the Explanatory Notes.
<b>Semi-trailer</b>	Trailers designed to impose a substantial load on the towing vehicle, usually via a turntable on a prime mover or a dolly.
<b>Tonne-kilometres</b>	Total tonne-kilometres is calculated by adding the product of reported average load and total business kilometres travelled while laden for each vehicle.
<b>Tonnes carried</b>	Total tonnes carried is the total weight of goods and freight carried during the survey period. The estimate of annual 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 transshipment occurs (i.e. the transfer of goods and freight from one vehicle to another).
<b>Travel to and from work</b>	This distance only includes travel between place of residence and place of work at the beginning and end of each work day.

