

# SURVEY OF MOTOR VEHICLE USE AUSTRALIA 30 SEPTEMBER 1991

IAN CASTLES Australian Statistician © Commonwealth of Australia 1993

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# **INQUIRIES**

- for further information about statistics in this publication and the availability of related unpublished statistics, contact Jack Brzozowski on Canberra (06) 252 5544 or any ABS State office.
  - for information about other ABS statistics and services please refer to the back page of this publication.

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## INTRODUCTION

This publication presents results from the 1991 Survey of Motor Vehicle Use. The data were collected in a sample survey conducted by the ABS throughout Australia in respect of the year ended 30 September 1991. Preliminary results published on 11 September 1992 have been slightly revised in this release, particularly in respect of fuel consumption.

Detailed explanatory notes are shown at the back of this publication. As well as outlining the methodology used

and the concepts, definitions and classification systems, they discuss the reliability of the estimates and selected aspects of data quality.

An explanation of the percentage standard error (SE%) shown against the estimates in each table is provided in the Explanatory Notes (paragraph 25).

Further information about this collection including access to additional unpublished statistics may be obtained from the ABS contact officer shown on the contents page.

## SUMMARY RESULTS FROM THE SURVEY

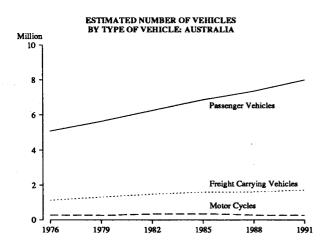
- There were an estimated 10.1 million vehicles in Australia at 30 September 1991, a rise of 7.6 per cent from 1988.
- A total of 150,400 million kilometres was travelled during the year ended 30 September 1991, a decrease of 2.3 per cent from 1988. Average distance travelled by all vehicles has also decreased (by 9.1 per cent) to 14,900 kilometres.
- Ninety-six per cent of all travel was undertaken within the State of registration, an increase of one per cent from 1988.
- Twenty-three per cent of passenger vehicle travel was for business use and twenty-five per cent was for travel to and from work. In 1988, twenty-one per cent of passenger vehicle use was for business purposes, and twenty-six per cent for travel to and from work.
- The proportion of travel for business purposes by all vehicles has been increasing steadily since regular surveys commenced in 1976, and now stands at thirty-four per cent of all travel.

- Australian Capital Territory and Northern Territory registered freight carrying vehicles recorded
  the highest average laden business distances
  (22,100 kilometres and 18,600 kilometres respectively).
- Total tonne-kilometres by freight carrying vehicles was estimated to be 88,205 million tonne-kilometres, an increase of 3.1 per cent from the corresponding figure in 1988.
- Freight vehicles carried an estimated 1,030 million tonnes during the survey period, an increase of 4.0 per cent from the corresponding 1988 figure.
- Average distance driven by males (all vehicles except buses) was 11,300 kilometres; females averaged 7,300 kilometres.
- Total passengers carried by buses was estimated at 891.3 million passengers (a decrease of 8.5 percent from 1988).

# **SUMMARY OF FINDINGS**

## NUMBER OF VEHICLES

Results of the 1991 Survey of Motor Vehicle Use relate to an estimated 10.1 million vehicles across Australia. There were 8.0 million passenger vehicles, representing nearly 79.5 per cent of all road using vehicles. Light commercial vehicles accounted for a further 13.4 per cent of vehicles; rigid trucks for 3.3 per cent; motor cycles for 2.8 per cent; articulated trucks for 0.5 per cent; and buses for 0.4 per cent.



Since 1976 when the first of the triennial surveys was conducted, the total number of road using vehicles has increased by nearly 54 per cent. Passenger vehicle numbers have increased by 57 per cent, and freight carrying vehicles (light commercials, rigid and articulated trucks) by 51 per cent. Motor cycle numbers have shown an overall decrease of 0.7 per cent since 1976.

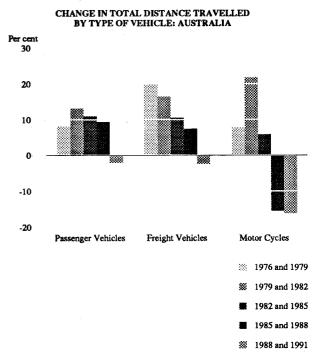
# TOTAL DISTANCE TRAVELLED

Despite an increase in the number of passenger vehicles in particular, total distance travelled by all motor vehicles in the twelve months to 30 September 1991 has declined by 2.3 per cent from the corresponding period for 1988 (to 150,388.7 million kilometres). While the difference in economic climate is likely to have been a factor contributing to the decline, changes in estimation procedures, referred to in the Explanatory Notes, would also have had an effect on the estimates shown in this publication.

Passenger vehicles travelled a total of 114,286.2 million kilometres, a decrease of 2.0 per cent from the corresponding 1988 figure. Freight carrying vehicles travelled 32,886.3 million kilometres, 2.3 per cent less than in 1988. Since 1976 the total distance travelled by passenger vehicles and freight carrying vehicles has increased by 45.5 and 61.8 per cent respectively.

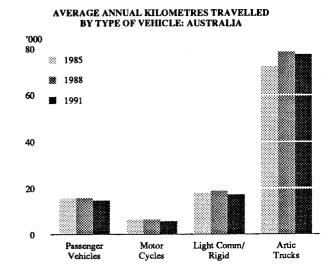
Passenger vehicles accounted for 76.0 per cent of total distance travelled in Australia; freight carrying vehicles 21.9 per cent; motor cycles 1.1 per cent (1,614.8 million

kilometres); buses 0.9 per cent (1,400.7 million kilometres); and other truck types 0.1 per cent (200.9 million kilometres).



## AVERAGE DISTANCE TRAVELLED

The average distance travelled by motor vehicles in the twelve months to 30 September 1991 was 14,900 kilometres, a decrease of approximately 9.1 per cent from the corresponding period in 1988 (16,400 kilometres).



The average distance travelled by freight carrying vehicles (light commercials, rigid and articulated trucks) fell by 7.8 per cent (to 19,000 kilometres), while passenger vehicles decreased by 9.5 per cent (to 14,300 kilometres). The

other truck types category showed an increase of 25.7 per cent (to 14,200 kilometres) although part of this is due to a change in certain technical aspects of survey procedures since 1988 (see Explanatory Notes).

Vehicles registered in the Northern Territory recorded the highest average distance travelled per vehicle at 17,300 kilometres, followed by the Australian Capital Territory (17,100 kilometres) and Queensland (15,700 kilometres), while South Australia (13,900 kilometres) and Tasmania (12,800 kilometres) recorded the lowest average distance travelled.

Estimated numbers of vehicles and average kilometres travelled, by category are shown in the following table.

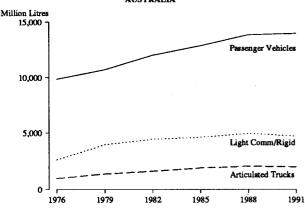
	Estimated	Average
	number	kilometres
	of vehicles	travelled
	('000)	('000)
Passenger vehicles	8,008	14.3
Motor cycles	284	5.7
Light commercials	1,346	16.9
Rigid trucks	331	18.5
Articulated trucks	52	76.0
Other truck types	14	14.2
Buses	42	33.3
Total	10,077	14.9

While freight carrying trucks on average travel the greatest distance, there are far more passenger vehicles on the road (see above table) and consequently this category shows the greatest total distance travelled, but significantly lower average distance travelled.

## **FUEL CONSUMPTION**

Total fuel consumption by all vehicles for the year ended 30 September 1991 was estimated at 21,337.9 million litres. Passenger vehicles accounted for 65.8 per cent (14,036.0 million litres) of total fuel consumed, followed by freight carrying vehicles with 31.6 per cent (6,747.2 million litres).

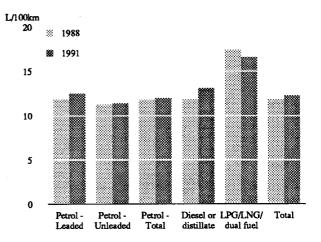




Unleaded petrol accounted for 37.5 per cent (5,763.8 million litres) of all petrol consumed in the twelve months to 30 September 1991. In 1988, unleaded petrol accounted for 20.6 per cent (3,337.0 million litres) of all petrol consumed. Petrol, both leaded and unleaded, accounted for 72.0 per cent (15,367.7 million litres) of total fuel consumption in 1991.

There were 4,834.8 million litres of diesel (22.7 per cent of total fuel consumption) and 1,135.4 million litres of LPG/LNG and dual fuels (5.3 per cent) consumed in the twelve months ended 30 September 1991. Total consumption of LPG/LNG fuels increased from 643.0 million litres in 1988 to 1,135.4 million litres in 1991, an increase of 76.6 per cent (492.4 million litres).

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



The overall average rate of fuel consumption by all vehicles for the year ended 30 September 1991 was 14.2 litres per hundred kilometres, up slightly from 1988. The average rate of fuel consumption for passenger vehicles was estimated at 12.3 litres per hundred kilometres. For those passenger vehicles using unleaded petrol, consumption averaged 11.4 litres per hundred kilometres, while leaded petrol consumption averaged 12.5 litres per hundred kilometres.

Consumption of diesel or distillate fuel for the year ended 30 September 1991 averaged 26.0 litres per hundred kilometres for all vehicles, 13.1 litres per hundred kilometres for passenger vehicles and 50.6 litres per hundred kilometres for articulated trucks.

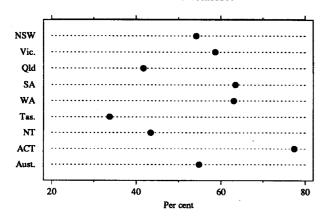
## AREA OF OPERATION

Nearly 96 per cent (143,900.8 million kilometres) of total kilometres travelled by all vehicles in the twelve months to 30 September 1991 was within the State of registration, slightly up from the proportion recorded for 1985 and 1988. Nearly 55 per cent (82,342.8 million kilometres) of total kilometres were driven in a capital city area. For articulated trucks, 18.6 per cent (735.5 million kilometres) of the total distance travelled was estimated to be within

a capital city area, while nearly 25 per cent (970.2 million kilometres) was interstate.

After the Australian Capital Territory where all distance travelled within the Territory is counted as capital city travel, South Australian registered vehicles recorded the highest proportion of travel within the capital city area with 63.4 per cent. Tasmanian registered vehicles recorded the lowest proportion of travel within a capital city, with just 33.7 per cent.

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



Tasmanian and Western Australian registered vehicles recorded the lowest levels of interstate travel, with 1.4 per cent and 1.6 per cent respectively of their total distance travelled taking place in other States, a possible reflection of these States' comparative isolation from the rest of Australia. Australian Capital Territory registered vehicles recorded the highest proportion of interstate travel with 22.6 per cent of total distance travelled.

Since 1976 the total distance travelled by vehicles in Australia has increased by 49.0 per cent from 100,919.2 million kilometres to 150,388.7 million kilometres. The largest increases were recorded in the Northern Territory (up 163.1 per cent), Queensland (up 82.1 per cent) and Western Australia (up 67.7 per cent), reflecting faster growth in population and vehicle numbers.

# PRIVATE AND BUSINESS VEHICLE USE

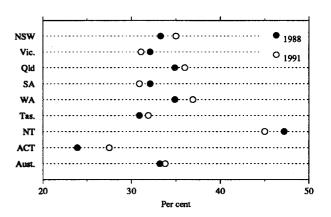
Business use accounted for nearly 34 per cent (50,874.9 million kilometres) of the total distance travelled in the twelve months to 30 September 1991, 33 per cent (17,023.8 million kilometres) of which was while laden.

Twenty-three per cent (25,956.6 million kilometres) of the total distance travelled by passenger vehicles was for business use, while 25 per cent (29,057.2 million kilometres) was for travel to and from work.

The average distance travelled for business purposes by all motor vehicles was 15,600 kilometres in 1991. Articulated trucks averaged 77,300 kilometres, nearly 75 per cent of which was while laden. Passenger vehicles

averaged 13,300 kilometres; light commercials 15,900 kilometres; rigid trucks 18,900 kilometres; and buses 36,100 kilometres.

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



Northern Territory registered vehicles recorded the highest average business kilometres travelled in the survey period with 19,400 kilometres, followed by Queensland with 16,400 kilometres. South Australia recorded the lowest average with 14,100 kilometres.

The average distance travelled to and from work by all motor vehicles was 6,500 kilometres in 1991. Light commercial vehicles recorded the highest average with 7,100 kilometres while other truck types recorded the lowest average with 2,600 kilometres.

The average distance travelled for private purposes by all motor vehicles was 7,900 kilometres, with passenger vehicles averaging 8,200 kilometres. Vehicles registered in the Australian Capital Territory and Queensland recorded the highest average vehicle usage for private purposes with averages of 9,100 and 8,400 kilometres respectively.

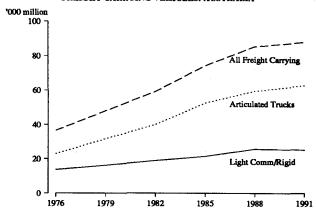
# FREIGHT CARRYING VEHICLE USE

Freight carrying vehicles travelled a total of 17,023.5 million laden kilometres for business purposes in the twelve months ended 30 September 1991, a drop of 6.3 per cent from the corresponding period in 1988.

Vehicles used for load carrying purposes averaged 15,100 laden business kilometres. Vehicles registered in the Australian Capital Territory and the Northern Territory recorded the highest average laden business distance travelled with 22,100 and 18,600 kilometres respectively.

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

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



laden, to provide a measure of the freight burden borne by the roads system.

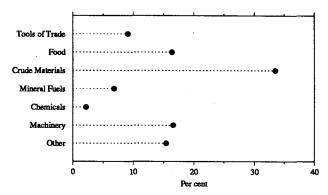
Total tonne-kilometres by load carrying vehicles was estimated to be 88,204.6 million tonne kilometres, with vehicles registered in New South Wales and Victoria accounting for 52.2 per cent of the total (23,208.3 and 22,851.3 million tonne-kilometres respectively).

Average tonne-kilometres for all freight carrying vehicles across Australia was estimated to be 78,100 tonne-kilometres; the Northern Territory had the highest average with 193,600 tonne-kilometres, and the Australian Capital Territory the lowest with 61,500 tonne-kilometres.

# COMMODITY/INDUSTRY USE

The commodity group *Inedible crude materials except* fuels accounted for 33.5 per cent (345.2 million tonnes) of total tonnes carried, a 2.9 per cent decrease from 1988.

# PROPORTION OF TOTAL TONNES CARRIED BY COMMODITY: AUSTRALIA



The group Machinery, transport equipment and manufactured goods accounted for 16.6 per cent (170.6 million tonnes) of total tonnes carried, a substantial decrease from 1988, largely due to the commodity Tools of trade (i.e. for own use) being identified as a separate group in 1991. The Food (includes beverages and tobacco) and live animals group accounted for 16.4 per cent (168.8 million tonnes) of total tonnes carried, an increase of 8.8 per cent on 1988.

As in 1988, the commodity group Food (includes beverages and tobacco) and live animals represented the highest proportion (26.8 per cent) of total tonne-kilometres travelled in 1991. The 23,669.9 million tonne-kilometres in 1991 was a decrease of 0.6 per cent from 1988.

The commodity group *Inedible crude materials except* fuels accounted for 18.8 per cent of total tonne-kilometres. The 16,542.2 million tonne-kilometres was an increase of 9.2 per cent on 1988. Due to *Wool* being explicitly included in this group for the first time in 1991, any increase recorded in tonne-kilometres travelled for this group should be viewed with care, as it is not known how much wool was reported in other groups in 1988.

Note: the industry to which business distance travelled is classified reflects respondents' perceptions of the industry in which the vehicle is predominantly used. Vehicles not reported as being used in particular industries were allocated to the road transport industry.

The Building and construction industry accounted for the greatest tonnes carried for any industry (reflecting the type of materials regularly carried, e.g. stone, cement, bricks etc.) with 23.1 per cent of total tonnes carried in 1991. The 237.6 million tonnes carried for the Building and construction industry was an increase of 28.0 per cent on 1988. The Road transport industry accounted for the second highest tonnes carried with 20.2 per cent of total tonnes carried in 1991. The 207.6 million tonnes carried for the Road transport industry was a decrease of 19.0 per cent from 1988. An estimated 144.6 million tonnes was carried for the Agriculture, forestry, fishing and hunting industry during the survey period and an estimated 126.7 million tonnes was carried for the Wholesale and retail trade industry.

# **BUS USE CHARACTERISTICS**

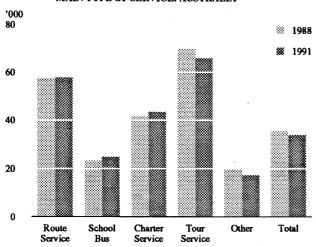
A number of factors have had an impact on the use of buses during the twelve months ending 30 September 1991. Deregulation of the airline industry in October 1990 coinciding with the extensive discounting of airline fares, resulted in the domestic airline industry experiencing a significant increase in the number of people electing to travel by air during 1990/91. In addition, during the 1988 survey period buses played an important role in providing transport to the major events associated with the bicentennial celebrations and Expo '88. Consequently, these factors should be considered when comparing 1988 and 1991 survey data for buses.

An estimated 1,400.7 million kilometres were travelled by all buses in the twelve months to 30 September 1991, a decrease of 2.2 per cent from the 1988 survey. Route services accounted for 43.2 per cent (605.6 million kilometres) of the total distance travelled, dedicated school bus services contributed 18.8 per cent (262.7 million kilometres), charter services 12.2 per cent (170.2 million kilometres) and tour services accounted for a fur-

ther 8.0 per cent (112.1 million kilometres) of total kilometres travelled.

The average distance travelled by all buses in the 1991 survey period was 33,900 kilometres. Buses registered in South Australia recorded the highest average distance travelled of any State or Territory with an average 48,000 kilometres travelled. Tasmanian registered buses travelled the lowest average distance of any State or Territory with an average 23,000 kilometres travelled. Buses used for tour services and route services recorded the highest average distance travelled with 65,800 kilometres and 57,800 kilometres respectively.

# AVERAGE KILOMETRES TRAVELLED (BUSES) BY MAIN TYPE OF SERVICE: AUSTRALIA



Total passengers carried by buses for the twelve months ended 30 September 1991 was estimated at 891.3 million passengers, a decrease of 8.5 per cent over the corresponding figure for 1988. More than 72 per cent (644.2 million passengers) of total passengers were carried by route services, and a further 17 per cent (151.8 million passengers) were carried by dedicated school bus services.

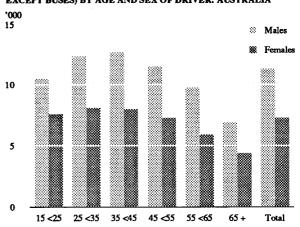
# **DRIVER CHARACTERISTICS**

Drivers of freight carrying vehicles were asked to supply driver details for the first time in 1991. Estimates published in 1988 covered only drivers of non-freight carrying vehicles (including some categories of commercial vehicles such as taxis and company owned cars as well as non-load carrying utilities and panel vans). Cau-

tion should therefore be exercised when comparing 1991 with 1988 results.

As in 1988, the details obtained from respondents include the age, sex, driving experience and proportion of total distance travelled (as driver) in the selected vehicle for each driver. These estimates include details reported for all drivers for the selected vehicle but 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 total distance driven by an individual who drives two or more vehicles during the survey period.

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



The average distance travelled by drivers of all vehicles (excluding buses) for the year ended 30 September 1991 was 9,800 kilometres with male drivers averaging 11,300 kilometres and female drivers 7,300 kilometres annually. Drivers in the 35 to 44 year age group averaged the most kilometres with 10,800 kilometres being driven annually and drivers aged 65 or more reporting the least with 6,000 kilometres.

Drivers of passenger vehicles, including taxis and self-drive hire vehicles, drove 9,300 kilometres on average, a decrease of 6.1 per cent from 1988. Motor cyclists travelled on average 5,500 kilometres, a 5.2 per cent decrease from the average distance of 5,800 kilometres recorded in 1988. Overall, 35 to 44 year old articulated truck drivers drove the greatest average distance of 56,700 kilometres.

						Year							
of vehicle	1976(a)	5(a)	1979(a)	12	1982(a)		1985	5	1988	86	:	(q)1661	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		-4	SE(%)
nger vehicles(b)	5,095,329	9	5,636,238		6,267,128	9	6,879,449	9	7,375,610	9	8.007	7.838	6
: cycles	285,635	Ξ	279,589		353,463	Ξ	352,595	:6	293,874	:=	283	3,513	) <u>(</u>
commercial vehicles(c)	723,846	Ξ	939,424		1,004,112	Ξ	1,136,166	:3	1.178.899	e	1.346	6.416	:=
trucks(c)	383,227	9	350,563		442,823	ପ୍ର	426,272	;E	404 658	€	33(	0.784	ìE
lated trucks	39,735	Ξ	43,949		46,575	Ξ	49,641	Ξ	48.722	99	52	2,106	€
truck types(b)	29,167	(S)	35,542	(E)	18,542	<del>.</del>	21,032	: <u>6</u>	23,138	(ଜ	. 14	4.147	<u></u> 6
(p)	п.а.	n.a.	n.a.	-	•	:	:	::	40,535	€	42	42,025	Ξ
	6,556,939	<b>(</b> 0)	7,285,305	<b>(</b>	8,132,643	9	8,865,155	9	9,365,436	9	10,076,830	6,830	9

(Number of vehicles)

ludes vehicles owned by the Australian governmen. (b) Campervans were included with Other Truck Types in 1976 and 1979, but have been included with Passenger Vehicles from 1982 onwards. (c) 1991 data are not strictly able with previous surveys due to revisions to body code classifications and/or improved processing procedures. See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle. (d) Data for Buses are available (6, 1979 and 1988. However, differences in scope, definitions and the collection methodologies employed make meaningful comparisons difficult.

TABLE 2. ESTIMATED NUMBER OF VEHICLES BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION AT 30 SEPTEMBER 1991

								S	State of registration	gistration	£*							
Type of vehicle	NSW		Vic.		p10		SA		WA		Tas.		NT		ACT		Australia	
		SE(%)		SE(%)		SE(%)	λ,	SE(%)		SE(%)		SE(%)		SE(%)	.S.	SE(%)	\ \	SE(%)
Passenger vehicles	2,533,539	9	2,232,856	6		<b>©</b> :	741,582 (	~ (2)	817,124	9	224,920		53,247			-	3,007,838	<u>(</u>
Motor cycles	69,437	9	70,433	_		<b>e</b>			38,508	9	6,068		4,481					6
Light commercial vehicles(a)	364,057	3	334,142			<u>g</u>			162,251	8	52,677		21,758					<u></u>
Rigid trucks(a)	98,072	Ξ	84,017			(2)			40,289	Ξ	11,993		2,952	_				<u>.</u>
Articulated trucks	14,931	Ξ	14,994	Ξ		€			5,516	Ξ	1.727		949					Œ.
Other truck types	2,834	€	3,471		_	33)			1,548	·@	1,025	_	162		_			6
Buses	9,924	Ξ	11,362		8,251	3			5,772	3	1,827	B	611	3	1,118 (2)			Ξ
Total	3,092,793	9	3,092,793 (0) 2,751,275 (0)		1,692,976 (0)	9	921,320 (0)		1,071,007 (0)	9	300,237 (0)	9	84,160 (0)	ව	163,062 (0)		10,076,830 (0)	8

# TWELVE MONTHS ENDED 30 SEPTEMBER

(Million kilometres)

of vehicle	1976(a)	(a)	1979(a)	a)	1982(a)	2)	1985	53	1988	88	(q)I66I	_
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
nger vehicles(b)	78,531.0	(3)	84,871.5	(E)	96,108.9	Ξ	106,573.5	Ð	116,639.8	81	114,286.2	Ξ
r cycles	1,641.3	ଚ	1,768.2	€(	2,152.1	⊕;	2,276.2	ලිරි	1,924.0	විම	1,614.8	<u> </u>
commercial vehicles(c)	6.789.9	⊕∈	5,827.2	36	8 417 2	€.	7,627.0	96	7.839.9	96	6.113.6	96
nated tracks	2,005.0	:E	2.607.4	<b>1</b>	2,999.5	Ξ	3,587.7	) E	3,835.7	∷≘	3,959.1	Ξ
truck types(b)	420.2	(S	456.9	ଚ	237.1	(12)	241.6	E	261.1	9	200.9	(50)
(p)	п.а.	n.a.	n.a.	n.a.	•	:	•	:	1,432.8	ව	1,400.7	3
	100,919.2	Ξ	111,469.2	Ξ	126,866.0	(E)	140,427.4	£	153,914.9	$\Xi$	150,388.7	E

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

76, 1979 and 1988. However, differences in scope, definitions and the collection methodologies employed make meaningful comparisons difficult.

# WELVE MONTHS ENDED 30 SELLENDED

('000 kilometres)

						Year							
of vehicle	(9)9261	(9	(9)6/61	<b>(4</b>	1982(b)		1985		8861	8		1991(c)	•
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		-1	SE(%)
nger vehicles(c) r cycles	15.4	ට ගි	15.1	<u>:</u>	15.3	£	15.5 6.5	33	15.8	ටම		14.3	33
commercial vehicles(d)	17.0	3	17.0	<u>(C</u>	16.9	<del>(</del> 4)	17.7	3	18.6	3		16.9	ପ୍ର
lrucks(d)	15.7	Ξ	16.7	3	19.0	(4)	17.9	€	19.4	8		18.5	Θ
ulated trucks	50.5	<b>3</b>	59.3	€	64.4	€	72.3	€	78.7	Ð		76.0	Ξ
r truck types(c)	14.4	ල	12.9	:G	12.8	(II)	11.5	9	11.3	ଚ		14.2	(3)
s(e)	п.а.	n.a.	П.A.	n.a.	:	:	:	•	35.3	ල	_	33.3	8
_	15.4	3	15.3	$\mathfrak{T}$	15.6	<b>(E)</b>	15.8	$\Theta$	16.4	$\mathfrak{S}$		14.9	3

e paragraphs 23-24 of Explanatory Notes on Average concept. (b) Excludes vehicles owned by the Australian government. (c) Campervans were included with Other Trytes in 1976 and 1979, but have been included with Passenger less from 1982 onwards. (d) 1991 data are not strictly comparable with previous surveys due to revisions to body code classifications and/or improved processing procedures. See paragraphs 7-10 of Explanatory Notes for a description of as to type of vehicle. (e) Data for Buses are available for 1976, 1979 and 1988. However, differences in scope, definitions and the collection methodologies employed make meaningful comparisons difficult.

# TABLE 5. TOTAL KILOMETRES TRAVELLED BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# (Million kilometres)

						State of registration	ration				
Type of vehicle	NSW	Vic.	pIÕ	SA		WA	Tas.		NT	ACT	Australia
	SE(%)	SE(%)		SE(%)	SE(%)	TS ST	SE(%) S	SE(%)	SE(%)	) SE(%)	SE(%)
Passenger vehicles Motor cycles	35,904.0 (2) 416.7 (6)	31,750.8 (2) 344.1 (7)	19,029.2 (3)	9,981.9	69	11,774.9 (3)	2,765.3	<b>€</b> €	819.4 (4) 30.3 (7)	2,260.7 (5)	114,286.2 (1)
Light commercial vehicles(a)	€	5,772.1 (4)	4,859.8	-			689.7				22,813.6 (2)
Rigid trucks(a)	ල	1,537.4 (3)	1,212.1				195.1	<del>-</del>	_	-	6,113.6 (2)
Articulated trucks	3	1,090.5 (3)	714.1				112.5	4			3,959.1 (1)
Other truck types	(13)	36.5 (16)	*72.7		_	_	5.8	<del></del>	_	_	200.9 (20)
Buses		292.2 (3)	285.9				41.1	9			1,400.7 (2)
Total	45,998.9 (2)	40,823.6 (2)	26,562.4 (2)	12,843.6 (3)		16,069.5 (3)	3,845.4 (3)		1,455.1 (3)	2,790.3 (4)	150,388.7 (1)
(a) See namer and a file Franchant Motor Can a demander	atom Motor for a done.	1 3	to true of waterla								

(a) See paragraphs 7-10 of the Explanatory Notes for a description of changes to type of vehicle.

TABLE 6. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE: STATETERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# ('000 kilometres)

Type of vehicle NSW SP(ve.)					•	8216231	name of regulation								
CE/G	Vic.		рlÕ	SA		WA		Tas.		NT		ACT	Au	Australia	
(A) Jerry	(9)	SE(%)	SE(%)	(9)	SE(%)		SE(%)	S	SE(%)	S	SE(%)		SE(%)		SE(%)
icles 14.2	14.2			13.5			6				æ		(5)	14.3	Ξ
0.9	4.9			4.7			E				· 🏵		(11)	5.7	ල
17.1	17.3			15.6			છ				· 🌫		<u> </u>	16.9	3
Rigid trucks(b) 19.1 (3)	18.3			15.4		17.0	€				· 🙃		(12)	18.5	Ξ
76.5	72.7			80.0			ල				· <del>(</del>		<u>(</u> 9	76.0	Ξ
17.4	10.5	_		14.6	_		(24)	_			· <del></del>		38)	14.2	(13)
Buses 40.3 (4)	25.7	(6)	34.7 (4)	46.8	<b>.</b>		<del>(</del> <del>4</del> )	22.5 (5)		37.3 (5)	· (C	37.5	(3)	33.3	[6]
Total 14.9 (2)	14.8	14.8 (2)	15.7 (2)	13.9		15.0	<u> </u>	12.8 (3)		17.3 (3)		17.1	<b>⊕</b>	14.9	Ξ

(a) See paragraphs 23-24 of Explanatory Notes on Average concept. (b) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 7. TOTAL FUEL CONSUMPTION BY TYPE OF VEHICLE AND TYPE OF FUEL: "AUSTRALIA TABLE 7. TOTAL FUEL WELVE MONTHS ENDED 30 SEPTEMBER 1991

(Million litres)

						Type of fuel	ja.					
1			Petrol				Diesel or	7	LPG/LNG/		Total	
Type of vehicle	Leaded		Unleaded		Total		aisimaie	ļ	man juen	:		
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
Passenger vehicles	7.781.0	ß	5,000.8	8	12,781.8	Ξ	416.0	(11)	837.7	(10)	14,035.5	Ξ
Motor cycles	67.8	.4	25.7	(9)	93.5	<u>(E)</u>	:	3	:	3	93.5	ල
Light commercial vehicles(a)	1.552.9	33	706.3	9	2,259.2	3	613.6	9	228.7	(12)	3,101.5	ପ୍ର
Rigid trucks(a)	168.1	9	8	(23)	176.5	<u>(</u>	1,406.4	3	58.5	(15)	1,641.3	8
Articulated trucks	2.4	( <u>33</u>	:	]3	2.5	(23)	1,997.0	Ξ	*5.0	(61)	2,004.4	Ξ
Other track types	12.7		15.5	(40)	28.2	(23)	13.7	(14)	2.9	(53)	44.8	(15)
Buses	18.9	<u>(</u>	7.1	(30)	26.0	<u>(G</u>	388.2	3	5.6	(22)	416.9	3
Total	9,603.9	(2)	5,763.8	3	15,367.7	3	4,834.8	(E)	1,135.4	(8)	21,337.9	3

(a) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 8. AVERAGE RATE OF FUEL CONSUMPTION (a) BY TYPE OF VEHICLE AND TYPE OF FUEL: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

6666666  $\Xi$ Total 12.3 5.8 13.6 26.8 20.6 29.8 14.2 SE(%) 636665 3 16.9 28.9 49.3 23.5 23.5 dual fuel 17.1 SE(%) 6365656  $\Xi$ Diesel or distillate .. 12.3 27.2 50.6 26.4 31.2 26.0 Type of fuel SE(%) (Litres per 100 kilometres) 5556656  $\widehat{\Xi}$ 12.0 5.8 13.7 24.0 45.0 20.6 12.3 Total SE(%) £6€€3€6 8 Petrol 11.5 Unleaded11.4 5.4 13.2 20.1 18.6 SE(%) 8 12.5 5.9 14.0 24.2 45.0 23.8 19.2 12.8 Leaded Light commercial vehicles(b) Passenger vehicles Rigid trucks(b) Articulated trucks Other truck types Type of vehicle Motor cycles Buses Total

(a) See paragraph 21 of Explanatory Notes on Rate of fuel consumption. (b) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

# TABLE 9. TOTAL KILOMETRES TRAVELLED BY TYPE OF VEHICLE AND PURPOSE: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

(Million kilometres)

						Purpose(a)	se(a)					
			Business	82			Total to and		Private		Total	
Type of vehicle	Laden		Unladen		Total(b)		from work					
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
Passenger vehicles	:	3	:	<u>:</u>	25,956.6	4)	29,057.2	(3)	59,316.8	(2)	114,286.2	(1)
Motor cycles	:	:3	:	:3	165.7	ව	643.1	€	806.0	€	1,614.8	ල
Light commercial vehicles(c)	8.808.8	ල	2,865.2	€	13,554.8	ල	4,489.6	€	4,769.2	<u></u>	22,813.6	(2)
Rigid trucks(c)	4,285.3	Ξ	1,381.9	( <u>7</u>	5,751.5	3	248.5	<u>(</u>	113.5	(10)	6,113.6	(2)
Articulated trucks	2,929.4	Ξ	8.666	<u>(</u> 2	3,929.2	Ξ	25.6	(12)	4.3	(37)	3,959.1	Ξ
Other truck types	:	3	:	:3	196.1	(50)	2.6	(22)	2.2	(40)	200.9	(50)
Buses	:	<u></u>	:	<b>:</b> :	1,320.9	3	27.9	(10)	51.9	9	1,400.7	(2)
Total	17,023.8	3	5,247.2	· ②	50,874.9	3	34,494.5	3	65,063.9	Ξ	150,388.7	Ξ

(a) See paragraphs 12-14 of Explanatory Notes on Purpose classification. (b) Includes business travel of non-load carrying vehicles except for articulated trucks. (c) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 10. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE AND PURPOSE: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 kilometres)

						Purpose(b)	(9)	-				
	·		Business	6a			Total to and		Private		Total	
Type of vehicle	Laden		Unladen		Total(c)		from work					
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
Passenger vehicles	:	3	. :	3	13.3	ල	6.4	8	8.2	Ξ	14.6	Œ
Motor cycles	:		:	3	3.8	· •	4.3	€	3.9	<u>⊕</u>	6.1	ල
Light commercial vehicles(d)	12.6	<b>(2</b> )	6.1	€	15.9	3	7.1	ල	6.2	3	17.3	ලි
Rigid trucks(d)	14.2	Ξ	6.4	3	18.9	Ξ	5.3	ତ	2.9	6	19.0	Ξ
Articulated trucks	57.8	Ξ	23.5	3	77.3	Ξ	5.3	(11)	3.8	(35)	77.6	Ξ
Other truck types	:	3	:	:3	15.1	(12)	5.6	(17)	3.6	(35)	14.9	(12)
Buses	:	<b></b>	:	:3	36.1	3	5.8	(8)	7.2	(5)	33.9	(B)
Total	15.1	(E)	7.2	(2)	15.6	(2)	6.5	(2)	7.9	(I)	15.3	(1)

(a) See paragraphs 23-24 of Explanatory Notes on Average concept. (b) See paragraphs 12-14 of Explanatory Notes on Purpose classification. (c) Includes business travel of non-load carrying vehicles except for articulated trucks. (d) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

# TWELVE MONTHS ENDED 30 SEPTEMBER 1991

(Million kilometres)

						Purpose(a)	se(a)					
			Business	S			Total to and		Private		Total	
State of registration	Laden		Unladen		Total(b)		Jrom work					
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
New South Wales	4,941.7	9	1.495.7	(4)	16.101.8	4	10,558.3	<del>3</del>	19,338.8	3	45,998.9	3
Victoria	4,306.9	(9)	1.293.9	9	12,686.3	€	10,202.8	<del>4</del>	17,978.9	ල	40,823.6	3
Oneensland	3.465.8	€	987.0	93	9.552.8	€	5,614.0	: <u>©</u>	11,395.6	€	26,562.4	3
South Australia	1,419.0	9	435.8	<u>)</u> @	3.962.7	9	2,781.4	:@	6,099.5	€	12,843.6	ල
Western Australia	1.874.0	9	752.8	<u>@</u>	5.921.8	(9)	3,480.9	<u>(</u>	6,999,9	€	16,069.5	ල
Tasmania	449.7	<u>@</u>	153.3	<u>@</u>	1,226.1	<u></u> @	812.1	6	1,807.2	€	3,845.4	3
Northern Territory	302.9	8	88.6	(15)	655.5	:©	300.8	6	498.8	(S)	1,455.1	ල
Australian Capital Territory	263.8	(10)	40.1	(12)	767.9	<b>®</b>	744.1	6	1,278.3	8	2,790.3	<del>(</del> 4)
Australia	17,023.8	3	5,247.2	3	50,874.9	3	34,494.5	(2)	65,063.9	(1)	150,388.7	(1)
(a) See paragraphs 12-14 of Explanatory Notes on Purpose classification. (b) Includes business travel of non-load carrying vehicles except for articulated trucks.	ry Notes on Purpose	classification.	(b) Includes busin	ess travel of ne	on-load carrying ve	hicles except f	or articulated trucks					

TABLE 12. AVERAGE KILOMETRES TRAVELLED (a) BY PURPOSE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 kilometres)

						Purpose(b)	(9)					
			Business	5		1	Total to and		Private		Total	
State of registration	Laden		Unladen		Total(c)		from work					
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
New South Wates	14.6	ß	6.9	<u>4</u>	15.7	ව	9:9	9	7.6	(3)	15.2	8
Victoria	15.7	:6	7.5	છે	15.5	<del>.</del>	8.9	(4)	7.9	3	.15.2	3
Queensland	15.6	3	7.0	<del>.</del> 4	16.4	9	6.3	(S)	8.4	(4)	16.0	9
South Australia	13.4	ල	6.3	(5)	14.1	ଚ	5.9	(S)	8.0	4	14.1	ଚ
Western Australia	14.5	(4)	8.8	: <u>@</u>	15.6	<del>(</del> 5	6.2	<del>4</del> )	7.9	4	15.4	ල
Tasmania	13.1	<u>ල</u>	6.5	9	14.6	<u>(</u>	5.7	9	7.6	(4)	13.3	ල
Northern Territory	18.6	9	8.6	(13)	19.4	9	6.2	6	8.2	(S)	17.8	ල
Australian Capital Territory	22.1	9	6.9	(11)	14.8	6	9.9	9	9.1	6	17.3	<del>(</del> 4)
Australia	15.1	$\mathfrak{S}$	7.2	3	15.6	(2)	6.5	3	7.9	(I)	15.3	(1)

(a) See paragraphs 23-24 of Explanatory Notes on Average concept. (b) See paragraphs 12-14 of Explanatory Notes on Purpose classification. (c) Includes business travel of non-load carrying vehicles except for articulated trucks.

# TABLE 13. TOTAL KILOMETRES TRAVELLED BY TYPE OF VEHICLE AND AREA OF OPERATION: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# (Million kilometres)

						Area of operation	peration					
Type of vehicle	Capital city(a)		Provincial urban		Other areas of State or Territory		Total within State of registration		Interstate		Australia	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)	,	SE(%)
Passenger vehicles	67,186.1	(2)	13,159.1	(4)	29,633.5	(3)	109,978.7	(1)	4,307.5	(5)	114,286.2	Ξ
Motor cycles	716.2	€	249.6	(⊛	555.4	ତ	1,521.2	ල	93.6	(10)	1,614.8	<u>(C)</u>
Light commercial vehicles(b)	10,009.9	<u>(6</u>	2,793.8	<u>(</u>	9,237.0	<u>(6</u>	22,040.8	(3)	772.8	(13)	22,813.6	3
Rigid trucks(b)	3,007.9	(2)	755.3	(5)	2,145.8	ල	5,909.1	Ξ	204.5	(18)	6,113.6	8
Articulated trucks	735.5	3	334.4	(5)	1,919.0	3	2,988.9	Ξ	970.2	(3)	3,959.1	Ξ
Other truck types	89.1	(II)	*58.9	(65)	20.6	(13)	198.5	(50)	2.3	(48)	200.9	(50)
Buses	598.1	<u>©</u>	162.6	(9)	502.9	(2)	1,263.6	(3)	137.0	6	1,400.7	(3)
Total	82,342.8	(1)	17,513.8	(3)	44,044.2	(2)	143,900.8	(1)	6,487.9	(4)	150,388.7	(1)

(a) Includes all of ACT for ACT registered vehicles. (b) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 14. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE AND AREA OF OPERATION: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 kilometres)

						Area of operation	eration					
Type of vehicle	Capital city(b)		Provincial urban		Other areas of State or Territory		Total within State of registration		Interstate		Australia	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
Passenger vehicles	10.9	(2)	5.4	(3)	6.4	3	14.0	Ξ	3.6	(4)	14.6	Ξ
Motor cycles	5.4	<u>(</u>	4.1	E	3.4	(S)	5.8	ල	3.7	6	6.1	<u>(</u>
Light commercial vehicles(c)		(3)	8.9	<del>(</del> 4)	11.2	(6)	16.8	3	9.9	(11)	17.3	3
Rigid trucks(c)		(2)	13.0	<u>(4)</u>	11.5	3	18.4	Ξ	12.0	(15)	19.0	Ξ
Articulated trucks		(2)	24.1	<u></u>	47.1	(2)	58.8	Ξ	68.1	(9)	77.6	Ξ
Other truck types		<u></u>	19.8	(28)	6.2	(12)	14.8	(12)	*7.9	(52)	14.9	(12)
Buses		3	17.1	(S)	20.8	<u>(6</u> )	30.7	<b>(2</b> )	26.4	6	33.9	(3)
Total	11.5	(1)	6.1	(3)	7.5	(2)	14.6	(1)	4.7	(3)	15.3	(1)

(a) See paragraphs 23-24 of Explanatory Notes on Average concept. (b) Includes all of ACT for ACT registered vehicles. (c) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

# TABLE 15. TOTAL KILOMETRES TRAVELLED BY AREA OF OPERATION: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# (Million kilometres)

						Area of operation	seration					
State of registration	Capital city(a)		Provincial urban		Other areas of State or Territory		Total within State of registration		Interstate		Australia	ļ
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
New South Wales	24,953.2	(£)	5,661.8	9	13,851.6	4	44,466.6	(2)	1,532.3	6)	45,998.9	8
Victoria	23,953.7	ල	3,860.6	6	11,122.1	<del>.</del>	38,936.5	3	1,887.2	<u>@</u>	40,823.6	(2)
Queensland	11,081.7	<del>.</del>	6,747.9	(2)	7,472.7	છ	25,302.4	3	1,259.9	(10)	26,562.4	ପ୍ତ
South Australia	8,141.1	<del>.</del>	:	:3	3,960.9	9	12,102.1	ල	741.6	(13)	12,843.6	ල
Western Australia	10,125.0	ල	:	:3	5,681.7	(S)	15,806.6	ව	262.9	(21)	16,069.5	ල
Tasmania	1,295.9	9	1,243.4	<u>.</u>	1,251.4	<u>ල</u>	3,790.7	ල	54.8	(31)	3,845.4	ල
Northern Territory	632.0	(9)	:	:3	703.8	9	1,335.8	4	119.3	6	1,455.1	ල
Australian Capital Territory	2,160.2	(S)	:	:3	:	:3	2,160.2	ତ	630.0	6	2,790.3	<del>(</del>
Australia	82,342.8	Ξ	17,513.8	(3)	44,044.2	(3)	143,900.8	Ξ	6,487.9	(4)	150,388.7	(3)
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1												

(a) Includes all of ACT for ACT registered vehicles.

TABLE 16. AVERAGE KILOMETRES TRAVELLED (a) BY AREA OF OPERATION: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 kilometres)

						Area of operation	ration					
State of registration	Capital city(b)		Provincial urban		Other areas of State or Territory	T.	Total within State of registration		Interstate		Australia	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
New South Wales	11.9	3	5.8	(5)	7.8	3	14.7	3	3.5	8	15.2	8
Victoria	11.6	ල	4.7	9	6.7	<del>(</del>	14.5	(5)	4.6	9	15.2	3
Oueensland	10.8	3	7.3	<del>(</del>	7.0	(S)	15.3	8	4.8	8	16.0	ପ୍ତ
South Australia	10.9	ල	:	:3	7.4	<u>છ</u>	13.3	ල	6.4	(10)	14.1	ල :
Western Australia	11.8	3	:	3	6.7	<u>છ</u>	15.2	3	13.4	(13)	15.4	ල
Tasmania	8.2	<b>(S</b> )	7.9	ଚ	9.9	ଚ	13.2	3	8.6	(21)	13.3	ල
Northern Territory	12.1	4	:	3	12.4	જ	16.3	<del>(</del>	6.6	<u></u>	17.8	<u>ල</u> :
Australian Capital Territory	13.5	(2)	•	3	:	<u> </u>	13.5	ତ	5.7	9	173	<del>(</del>
Australia	11.5	(1)	6.1	(3)	7.5	(2)	14.6	(1)	4.7	(3)	15.3	Ξ

(a) See paragraphs 23-24 of Explanatory Notes on Average concept. (b) Includes all of ACT for ACT registered vehicles.

# TABLE 17. TOTAL BUSINESS KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

(Million kilometres)

							- 4	State of registration	istration							
Type of vehicle	NSW		Vic.	piÕ		SA		WA		Tas.		NT	ACT		Australia	
	-4	SE(%)	SE(%)	(9)	SE(%)		SE(%)		SE(%)	SE(%)	(%)	SE(%)		SE(%)		SE(%)
Passenger vehicles	8,961.0	9 ()	6,551.2 (8)	4,496.7	6	1,845.1	(11)	2,960.6	(S)	Ť	210		402.8		25,956.6	€
Motor cycles		<u>(1</u> )		31.6	(18)	13.3	(11)	21.1	(24)	_	7.7		4.2	_	165.7	<u>6</u>
Light commercial vehicles (b)		(5)		2,830.6	9	1,105.1	6	1,731.9	E	_	23	_	223.1	_	13,554.8	<u>છ</u>
Rigid trucks (b)	1,749.0	(3) 1,	,440.7 (3)	1,147.1	ල	456.1	<u>(</u>	647.6	€	181.1 (11)	ñ	_	71.1	_	5,751.5	6
Articulated trucks		3)		710.0	3	379.5	6	391.0	ල		ò		26.4		3,929.2	Ξ
Other truck types	48.2	(14)		*72.1	(23)	17.8	(21)	11.9	(36)	$\overline{}$	. 1	_	2.7	_	196.1	50)
Buses				264.8	3	145.8	(4)	157.6	છ	38.3 (6)	2	21.9 (6)	37.5	<b>4</b>	1,320.9	3
Total	16,101.8 (4)		12,686.3 (4)	9,552.8	4	3,962.7	<b>©</b>	5,921.8	(S)	1,226.1 (6)	65	655.5 (6)	767.9	€	50,874.9	3

(a) See paragraph 13 of Explanatory Notes on Business kilometres. (b) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 18. AVERAGE (a) BUSINESS KILOMETRES TRAVELLED (b) BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 kilometres)

						Š	State of registration	istration							
Type of vehicle	NSW	Vic.		рIÕ	SA		WA		Tas.	NT		ACT	Au	Australia	
	SE(%)		SE(%)	SE(%)	(9)	SE(%)		SE(%)	SE(%)		SE(%)		SE(%)		SE(%)
Passenger vehicles		13.1			11.5			6	_		9		(12)		3
Motor cycles		3.6	-	_	2.4	_		(21)	_		36)	_	(18)		€
Light commercial vehicles (c)		16.2			14.1			(9)			12)		· (8)		3
Rigid trucks (c)		19.1			15.9			€			11)		·		ΞΞ
Articulated trucks		74.3			80.3			<u>(C</u>			<b>⊕</b>		(S)		Ξ
Other truck types	17.4 (13)	10.8	(15)	_	16.4	_	_	(25)	5.7 (23)		14)	٠٠.	(36)	_	12)
Buses		29.4		36.6 (4)	49.3	4	32.9	<b>€</b>	23.8 (5)	40.4	ତ	40.9	<b>(4)</b>	36.1	<u>(8</u>
Total	15.7 (3)	15.5	<del>(</del>	16.4 (3)	14.1	3	15.6	€	14.6 (5)	19.4	9	14.8	8	15.6	9

(a) See paragraphs 23-24 of Explanatory Notes on Average concept. (b) See paragraph 13 of Explanatory Notes on Business kilometres. (c) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 19. TOTAL LADEN BUSINESS KILOMETRES TRAVELLED (a) BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

(Million kilometres)

								S	State of registration	istration							
Type of vehicle	NSW		Vic.		Орд		SA		WA	-	Tas.		NT	ACT		Australia	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)	S	SE(%)	SE(%)		SE(%)		SE(%)
Light commercial vehicles(b) Rigid trucks(b) Articulated trucks	2,838.1 1,306.2 797.5	මලල	2,350.8 1,099.5 856.6	<u>මෙම</u>	2,092.9 847.7 525.3	මෙම	801.5 320.9 296.6	<u> </u>	1,120.1 472.4 281.2	<u>844</u>	235.7 (1) 135.2 (1) 78.7 (3)	(3)	182.6 (16) 45.5 (14) 74.8 (5)	187.1 58.0 18.8	( <del>1</del>	9,808.8 4,285.3 2,929.4	ଚତ୍ତ
Total	4,941.7 (3)		4,306.9 (3)	ව	3,465.8 (4)	€	1,419.0 (5)		1,873.7 (5)	<b>©</b>	449.7 (7)		302.9 (10)	263.8 (10)		17,023.5	3

(a) See paragraph 13 of Explanatory Notes on Business kilometres. (b) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 20. AVERAGE (a) LADEN BUSINESS KILOMETRES (b) TRAVELLED BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 kilometres)

				-				Sı	ate of res	State of registration								
Type of vehicle	NSW		Vic.		Old		SA		WA		Tas.		NT		ACT	Ak	Australia	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
Light commercial vehicles(c) Rigid trucks(c) Articulated trucks	12.3 14.3 54.0	ଚଚଚ	12.7 14.8 59.2	<u>ଚଚ</u> ଚ	13.2 15.4 60.3	ତ୍ରତ	11.0 11.5 62.7	698	12.8 12.9 53.8	€€6	10.4 13.3 48.2	<u>මට</u> ම	14.4 ( 16.7 ( 81.3	(14) (13) (4)	20.6 22.0 76.4	<u>6</u> 9	12.6 14.2 57.8	ପ୍ରପ୍ରପ
Total	14.6 (3)	G	15.7	3	15.6	ල	13.4	<u>4</u>	14.5 (5)	<b>(S</b> )	13.1	<b>(</b> 6)	18.6 (9)	· (6)	22.1	6	15.1	(I)
V. S	M		5 (6		1. 10 .5		N.	D	House about	1. 1. 6T. 1. NI	Todacano 7	10 of Evals	No.	ac for a dec	o unition o	f change to	tone of v	phicle

(a) See paragraphs 23-24 of Explanatory Notes on Average concept. (b) See paragraph 13 of Explanatory Notes on Business kilometres. (c) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 21. TOTAL TONNE-KILOMETRES (a) BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# (Million tonne-kilometres)

						State of registration				
Type of vehicle	NSW	:	Vic.	рЮ	SA	WA	Tas.	NT	ACT	Australia
		SE(%)	SE(%)	6) SE(%)	6) SE(%)	SE(%)	SE(%)	SE(%)	SE(%)	SE(%)
vehicles(b)	1,390.1 (8) 5,597.5 (4)	<b>⊛</b> €	1,094.3 (8) 5,018.4 (6)	999.9 (9) 4,469.0 (5)	375.5 (11) 1,624.8 (16)	608.0 (13) 2,544.4 (6)	119.1 (14) 783.4 (22)	86.4 (22) 235.9 (14)	78.0 (18) 273.4 (13)	4,751.5 (4) 20,546.7 (3)
Articulated trucks	16,220.6	<del>4</del>	_		6,017.5 (3)	7,671.0 (5)		2,832.4 (6)	383.7 (7)	62,906.2 (2)
Total	23,208.3 (3)	€	22,851.3 (3)	16,893.3 (3)	8,017.8 (4)	10,823.4 (4)	2,520.5 (8)	3,154.7 (5)	735.1 (6)	88,204.5 (1)

(a) See paragraph 21 of Explanatory Notes on Tonne-kilometres. (b) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 22. AVERAGE (a) TONNE-KILOMETRES (b) BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# ('000 tonne-kilometres)

				2	State of registration				-
Type of vehicle	NSW	Vic.	рlÕ	SA	WA	Tas.	NT	ACT	Australia
	SE(%)	SE(%)	SE(%)	SE(%)	SE(%)	SE(%)	SE(%)	SE(%)	SE(%)
Light commercial vehicles(c) Rigid trucks(c)	6.0 (8)	5.9 (7)	6.3 (8)	5.2 (9) 58.2 (15)	7.0 (12)	5.3 (13)	6.8 (20)	8.6 (15)	6.1 (4)
Articulated trucks	1,098.1 (4)		1,310.5 (3)	1,272.6 (3)	1,466.5 (5)	991.1	3,076.8 (6)	1,562.1 (6)	
Total	68.9 (3)	83.4 (4)	76.3 (4)	76.2 (5)	(3) (3)	73.1 (8)	193.6 (8)	61.5 (9)	78.1 (2)

(a) See paragraph 22-24 of Explanatory Notes on Average concept. (b) See paragraph 21 of Explanatory Notes on Tonne-kilometres. (c) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 23. RIGID TRUCKS: AVERAGE (a) TONNE-KILOMETRES (b) BY NUMBER OF AXLES AND GROSS VEHICLE MASS: AUSTRALIA

TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 tonne-kilometres)

Number of axles	8 and under	Over 8 to 20	Over 20		Not stated		Total	
		SE(%)	SE(%)	SE(%)		SE(%)		SE(%)
2 axle, no trailers	21.2	(3) 59.2		(17)	3.0	· •	39.5	3
2 axle, single axle trailer	21.4	(28) 52.4	(17) 146.7	(31)	64.0	<u>(</u> )	48.2	(1)
2 axle, tandem axle trailer	18.5			(23)	:	<b>∵</b>	9.69	(15)
2 axle, triaxle trailer	13.3	(25) *101.8		(64)	:	3	*61.6	(28)
2 axle, other & not stated	0.3	(0) 12.3		(49)	:	<b>:</b>	18.5	(35)
3 axle, no trailers	26.9	(28) 88.5		(5)	2.7	<b>(</b> )	152.9	<del>(</del>
3 axle, single axle trailer	:	:		(27)	80.4	(e)	301.9	(21)
3 axle, tandem axle trailer	:	() 103.4		(11)	: <b>:</b>	<b>:</b>	410.0	(E)
3 axle, tnaxle trailer	:	:	_	(13)	:	<b>∵</b>	1,061.4	(13)
3 axle, other & not stated	•	:		(39)	•	$\odot$	360.0	(36)
4 axle, no trailers	8.9	(0) 107.8		6	•	<u>:</u>	283.6	6
4 axle, single axle trailer	:	:		(23)	:	<b>:</b>	357.1	(23)
4 axle, tandem axle trailer	•	:		(18)	:	<b>3</b>	526.4	(18)
4 axle, triaxle trailer	:	:	-	(48)	•	<b>:</b>	1,597.5	(48)
4 axle, other & not stated	:	:		(56)	:	(i)	1,030.7	(26)
Total rigid trucks	21.2	(3) 61.4	(3) 268.4	4)	*30.9	(57)	68.3	3

(a) See paragraph 23-24 of Explanatory Notes on Average concept. (b) See paragraph 21 of Explanatory Notes on Tonne-kilometres. (c) Some data cells in this table have a high relative Standard Error but have been published for completeness.

# TABLE 24. ARTICULATED TRUCKS: AVERAGE (a) TONNE-KILOMETRES (b) BY NUMBER OF AXLES AND GROSS VEHICLE MASS: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# ('000 tonne-kilometres)

				Gross vehicle mass (tonnes) (c)	ess (tonnes) (c)			
Number of axles	30 and under		Over 30 to 40		Over 40		Total	
		SE(%)		SE(%)		SE(%)		SE(%)
2 axle, single axle trailer	137.6	(61)	*890.4	(55)	:	3	166.2	(61)
2 axle, tandem axle trailer	280.5	E	452.4	(10)	915.9	(30)	365.4	9
2 axle, triaxle trailer	136.1	(02)	723.7	(18)	1,135.0	(30)	902.6	(16)
2 axle, other combination	20.0	<u></u>	£1.79*	(52)	19.6	(47)	47.2	(46)
3 axle, single axle trailer	*215.7	<u>(</u>	*381.3	(64)	:	<u> </u>	253.5	(20)
3 axle, tandem axle trailer	318.0	(14)	597.7	(S)	942.2	(12)	6.609	(S)
3 axle, triaxle trailer	892.9	(16)	1,450.8	ල	2,035.9	· 62	1,714.0	3
3 axle, other combination (d)	*20.0	(82)	425.4	(61)	3,310.3	9	3,081.7	9
4 axle, tandem axle trailer	:	<u> </u>	5.766	<u></u>	:	:3	997.5	9
4 axle, triaxle trailer	:	3	:	:3	1,499.7	(2)	1,499.7	(5)
4 axle, other combination	:	:3	:	:3	1,618.2	(24)	1,618.2	(24)
Total articulated trucks	300.8	6	1,095.2	9	2,025.2	(2)	1,240.5	(2)
(a) Can narrange Of M. M. Firstangton; Notes on Average concern (b) Cas	tee on Average concept	(h) See narrament 21 of E	narament 21 of Hynlanatory Notes on Tonne-bilometres		(c) Some data cells in this table have a high relative Standard From his have been miblished for	Sylve Stand	ard Error hiit have heen	whiched for

(a) See paragraph 23-24 of Explanatory Notes on Average concept. (b) See paragraph 21 of Explanatory Notes on Tonne-kilometres. (c) Some data cells in this table have a high relative Standard Error but have been published for completeness. (d) Includes multi-trailer combinations

TABLE 25. TOTAL TONNES CARRIED (a) BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

(Million tonnes)

								S	tate of re	State of registration								
Type of vehicle	NSW		Vic.		рIÕ		SA		WA		Tas.		NT	¥	ACT	Au	Australia	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)	SE	SE(%)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	SE(%)		SE(%)
Light commercial vehicles (b) Rigid trucks (b) Articulated trucks	36.6 (131.7 122.3	<u>6</u> 68	29.2 103.0 92.9	୭ତତ	26.0 125.1 64.6	<u>ම</u> ෙමල	12.4 40.8 32.0	£ (10) (4)	18.8 65.7 49.2	(13) (13) (13)	6.2 28.9 18.7	(42) (39) (6)	2.0 (18) 5.2 (12) 8.5 (11)		1.8 (2 5.3 (1 2.6 (1	(22)	133.0 505.7 390.8	& <b>€</b> Ø
Total	290.7 (3)		225.1 (3)	3	215.7 (6)	9)	85.2 (5)	(5)	133.7 (6)	9	53.8 (22)	(22)	15.7 (7)		9.7 (8)		(2) 9.670,1	3

(a) See paragraph 22 of Explanatory Notes on Tomes carried. (b) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

TABLE 26. AVERAGE LOAD CARRIED(a) BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

(Kilograms)

									State of r	State of registration	r							
Type of vehicle	NSW		Vic.		рIÕ		SA		WA		Tas.		M		ACT	,	Australia	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
Light commercial vehicles(b) Rigid trucks(b) Articulated trucks	432 3,697 18,730	€8€	422 3,729 17,137	වලට	441 4,117 20,124	<u>689</u>	469 4,653 18,571	ඉල ල	439 4,985 22,958	୭ଅପ	455 4,864 19,231	මුම	386 3,899 34,259	<u>ම</u> ිමම	398 (3,919 20,282	£00	435 4,070 19,242	888
Total	2,123 (2)	(2)	2,199	(2)	- 1	(3)		(4)	2,641	(3)		(8)		9	1,584 (7)	9	2,248	Ξ

(a) See paragraph 22 of the Explanatory Notes for an explanation of average load carried. (b) See paragraphs 7-10 of the Explanatory Notes for a description of changes made to type of vehicle

# TABLE 27. TOTAL TONNE-KILOMETRES (a) AND TOTAL TONNES CARRIED (b) BY COMMODITY CARRIED: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

	Total tonne-kilometr	es	Total tonnes carrie	d
Commodity carried	Million tonne kilometres	SE(%)	Million tonnes	SE(%)
Tools of trade	3,554.6	(5)	93.6	(5)
Food (includes beverages and tobacco) and live animals				
Livestock	4,220.0	(6)	28.2	(5)
Wheat, unmilled	1,573.0	(8)	21.5	(19)
Other cereal grains, unmilled	2,070.7	(9)	16.1	(10)
Fresh fruit and vegetables	4,505.9	(7)	21.2	(10)
Animal feed (including hay, chaff, fodder etc	.,	(.)		()
and animal foods prepared or manufactured	1,638.9	(9)	17.0	(8)
Other food & preparations	9,661.4	(5)	64.8	(5)
Inedible crude materials except fuels				
Wool	957.5	(12)	5.7	(16)
Logs and sawn timber	3,857.0	(6)	40.9	(7)
Crude fertiliser, manures	698.7	(15)	7.8	(20)
Sand, stone, gravel and earth	8,260.0	`(6)	259.4	(7)
Iron ore and concentrates	443.3	(18)	5.0	(21)
Other crude materials	2,325.7	(10)	26.4	(13)
Mineral fuels, lubricants and related materials				
Coal	1,234.6	(16)	17.2	(19)
Petroleum, petroleum products and related materials	4,198.7	(7)	45.6	(8)
Other fuel products	812.6	(19)	6.8	(20)
Chemicals and related products			*	
Fertilisers, manufactured	1,400.7	(8)	11.4	(9)
Other chemicals and related products	1,349.9	(11)	11.4	(12)
Machinery, transport equipment and manufactured goods				
Machinery, equipment, apparatus and appliances	3,840.9	(6)	45.4	(6)
Motor cars	1,147.0	(15)	5.5	(18)
Other transport equipment	386.6	(10)	2.4	(16)
Cement, concrete and concrete products	2,006.7	(8)	43.0	(7)
Clay bricks, tiles, pipes etc.	1,391.7	(9)	14.3	(11)
Metals and metal manufactures	3,731.5	(8)	26.0	(7)
Other manufactured goods	3,509.2	(7)	34.0	(6)
Other goods				
General freight	13,398.0	(4)	71.6	(5)
Water	335.2	(11)	15.7	(12)
Garbage	794.3	(10)	20.3	(10)
Household effects	1,076.6	(12)	6.8	(12)
Other	3,823.6	(8)	44.6	(7)
Total	88,204.6	(1)	1,029.7	(2)

<sup>(</sup>a) See paragraph 21 of Explanatory Notes on Tonne-kilometres (b) See paragraph 22 of Explanatory Notes on Tonnes carried

TABLE 28. TOTAL TONNES CARRIED (a) BY INDUSTRY SERVED: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

(Million tonnes)

							State of registration	u	-			
Industry	NSW	Vic.		рIÕ		SA	WA	Tas.	IN	ACT	Australia	
	SE(%)		SE(%)		SE(%)	SE(%)	SE(%)	SE(%)	SE(%)	SE(%)	(	SE(%)
Agriculture, forestry,												
fishing and hunting	33.7 (8)	25.9		28.8	6		_		_		144.6	(S)
Mining	26.4 (16)	7.7		16.9	(18)		_	-	_	_	82.9	⊛
Manufacturing	_	29.1		10.1	(13)	_	_		_		9.08	(5)
Building and construction	(8) 9:69	41.3		54.1	`⊛	_	_	*18.6 (61)	_		237.6	9
Wholesale and retail trade		34.4		21.7	:⊛	_	. –		_	_	126.7	<del>(</del>
Road transport	(8) 0:09	55.6	:E	36.5	(⊛	18.7 (7)	21.3 (9)	10.1 (12)	3.3 (14)	2.2 (23)	207.6	(4)
Commonwealth, State						•						
and Local government	29.2 (10)	22.8		45.4	(24)			4.6 (16)	0.8 (26)	0.9 (21)	124.6	(10)
Other and not stated	(61) 6.7	8.2	(22)	2.1	(22)	1.1 (18)	4.1 (27)	0.8 (17)	0.2 (46)	_		11)
Total	290.7 (3)	225.1	ව	215.7	9	85.2 (5)	133.7 (6)	53.8 (22)	15.7 (7)	9.7 (8)	1,029.6	3
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1												

(a) See paragraph 22 of Explanatory Notes on Tonnes carried

TABLE 29. TOTAL KILOMETRES TRAVELLED BY TYPE OF BUS AND MAIN TYPE OF SERVICE: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# (Million kilometres)

						Main type of service	ervice					
Type of bus	Route		Dedicated school bus service		Charter service		Tour service		Other		Total	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
Buses with less than 20 seats Buses with 20 or more seats	27.7 577.9	£ (3)	63.5 199.2	66	34.7 135.5	(15)	16.8 95.3	(25)	203.3 46.7	(12)	346.1 1,054.5	£3
Total	605.6	(4)	262.7	(4)	170.2	(3)	112.1	(10)	250.0	(5)	1,400.7	(2)

TABLE 30. AVERAGE KILOMETRES TRAVELLED (a) BY TYPE OF BUS AND MAIN TYPE OF SERVICE: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# ('000 kilometres)

į.						Main type of service	service					
Type of bus	Route service		Dedicated school bus service		Charter service		Tour service	,	Other		Total	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
Buses with less than 20 seats Buses with 20 or more seats	41.7	(16)	25.5 24.6	ଓଡ	31.9 48.0	<u></u>	29.6 83.9	(17) (8)	17.4	€8	21.0 42.6	විම
Total	57.8	3	24.8	3	43.5	<b>(</b> 2)	65.8	<b>®</b>	17.2	<del></del>	33.9	(2)
(a) See paragraphs 23-24 of Explanatory Notes on Average concept.	Notes on Average	concept.					21.					

TABLE 31. TOTAL KILOMETRES TRAVELLED (BUSES) BY MAIN TYPE OF SERVICE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# (Million kilometres)

						Main type of service	ervice					
State of registration	Roide service	·	Dedicated school bus service		Charter service		Tour service		Other		Total	ļ
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
New South Wales	176.3	<b>⊚</b> €	83.2	<u> </u>	67.8	(14)	30.4	(26)	42.8	(15)	400.4	€.6
Victoria Oueensland	106.2	<u>6</u>	53.4	99	31.4	(15)	33.1	(21)	61.8		285.9	<u>.</u>
South Australia	91.6	(છે	19.7	<u></u>	11.2	(17)	14.1	(18)	11.5	(16)	148.0	4
Western Australia	73.6	6	39.7	(11)	11.5	(17)	7.5	(62)	35.9	(10)	168.1	4
Tasmania	17.2	(16)	10.4	<b>.</b>	3.9	(10)	1.3	(17)	8.4	(15)	41.1	9
Northern Territory	7.5	(14)	1.7	(15)	2.1	(50)	8.0	(11)	3.5	(12)	22.8	9
Australian Capital Territory	28.6	(4)	1.0	(31)	2.8	(20)	:		9.6	6	42.0	<del>(</del> 5)
Australia	9.509	<b>(4)</b>	262.7	(4)	170.2	6	112.1	(10)	250.0	(5)	1,400.7	(2)

TABLE 32. AVERAGE KILOMETRES TRAVELLED (a) (BUSES) BY MAIN TYPE OF SERVICE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 kilometres)

						Main type of service	ervice					
State of registration	Rowe service	·	Dedicated school bus service		Charter service		Tour service		Other		Total	
		SE(%)	·	SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
New South Wales	54.4	9)	27.1	9)	50.1	(11)	85.3	(18)	22.7	(12)	40.5	(4)
Victoria	50.9	(5)	22.4	<del>4</del>	43.2	6	56.3	(16)	14.4	(5)	26.5	3
Queensland	26.7	9	25.4	છ	50.9	· (Se)	68.7	(17)	19.7	6	34.9	4
South Australia	92.5	(S)	19.2	9	36.6	(12)	73.3	(17)	20.1	(12)	48.0	4
Western Australia	57.4	4	31.9	છ	24.0	(10)	44.2	(61)	15.0	(8)	30.2	3
Tasmania	41.1	(S)	17.0	(E)	28.3	(9)	29.1	<u>(8)</u>	14.5	(10)	23.0	(S)
Northern Territory	71.3	(10)	16.6	(11)	38.9	(13)	55.6	9	19.4	6	39.0	છ
Australian Capital Territory	54.9	(3)	24.8	(11)	57.3	(30)	:	3	19.2	9	37.8	(3)
Australia	57.8	(2)	24.8	(2)	43.5	(2)	65.8	8	17.2	<b>€</b>	33.9	3
7. V.	Market America	***************************************										

<sup>(</sup>a) See paragraphs 23-24 of Explanatory Notes on Average concept.

TABLE 33. TOTAL PASSENGERS CARRIED BY TYPE OF BUS AND MAIN TYPE OF SERVICE: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# (Million passengers)

Type of bus         Route service         SE(%)         Charter stats         Charter seats         Total         Total         Total         Charter service         Charter service         Charter service         Charter service         Charter service         Total         Charter service         Char							Main type of service	ervice					
SE(%)         SE(%) <th< th=""><th>Type of bus</th><th>Rowe service</th><th></th><th>Dedicated school bus service</th><th></th><th>Charter service</th><th></th><th>Tour service</th><th></th><th>Other</th><th></th><th>Total</th><th></th></th<>	Type of bus	Rowe service		Dedicated school bus service		Charter service		Tour service		Other		Total	
3.7         (21)         9.0         (12)         3.2         (17)         1.1         (28)         18.9         (9)         36.0           640.5         (4)         142.8         (6)         42.0         (13)         9.1         (13)         20.9         (22)         855.3           644.2         (4)         151.8         (6)         45.2         (12)         10.2         (12)         39.8         (12)         891.3			SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
644.2 (4) 151.8 (6) 45.2 (12) 10.2 (12) 39.8 (12) 891.3	Buses with less than 20 seats Buses with 20 or more seats	3.7 640.5	(4)	9.0 142.8	(12)	3.2 42.0	(17)	1.1 9.1	(28)	18.9 20.9	(6)	36.0 855.3	90
	Total	644.2	(4)	151.8	(9)	45.2	(12)	10.2	(12)	39.8	(12)	891.3	(3)

# TABLE 34. TOTAL PASSENGERS CARRIED BY MAIN TYPE OF SERVICE: STATE/TERRITORY OF REGISTRATION TWELVE MONTHS ENDED 30 SEPTEMBER 1991

# (Million passengers)

						Main type of service	ervice					•	
State of registration	Rowe service	·	Dedicated school bus service	-	Charter service		Tour service		Other		Total		
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)	
New South Wales	227.1	(10)	57.3	(11)	11.8	(17)	1.9	(27)	12.0	(30)	310.0	6	
Victoria	132.4	<u>`</u> @	32.2	(10)	17.9	(23)	1.6	(40)	6.2	(12)	190.3	<u>@</u>	
Queensland	80.0	(11)	31.7	(13)	8.4	(31)	3.7	(23)	6.4	(17 <u>)</u>	130.1	:6	
South Australia	72.7	(6)	10.3	(18)	2.5	(20)	0.8	(61)	*4.8	( <u>6</u>	91.1	€	أوالياسي
Western Australia	74.3	:E	9.1	(14)	2.7	(50)	9.0	(27)	7.4	(14)	94.1	(2)	
Tasmania	25.9	(18)	0.6	(5)	1.2	(18)	0.3	(18)	1.8	(14)	38.2	(12)	
Northern Territory	7.0	(12)	2.1	(18)	0.5	(21)	1.3	(23)	0.7	(15)	11.5	Œ	
Australian Capital Territory	24.9	3	0.5	(32)	*0.2	(25)	:	<u></u>	0.5	(18)	25.8	3	
Australia	644.2	€	151.8	9)	45.2	(12)	10.2	(12)	39.8	(12)	891.3	3	

TABLE 35. AVERAGE KILOMETRES (a) TRAVELLED BY DRIVERS BY AGE AND SEX OF DRIVER: AUSTRALIA TWELVE MONTHS ENDED 30 SEPTEMBER 1991

('000 kilometres)

								Age of driver (years)	ier (years)							
Vehicle type (b)	15 and less than 25		25 and less than 35	3	35 and less than 45		45 and less than 55		55 and less than 65	65	65 and over	2	Other and not stated		Total	
		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)		SE(%)
							MALE	٠								
Passenger vehicles Motor cycles Light commercial vehicles (c)	10.8 6.6 9.9	ତତତ	11.6	<b>⊕</b> ତତ	11.7 5.5 14.5	ଚ୍ଚତ	10.5 4.8 13.6	_	9.4 2.8 10.8	€ <u>5</u> 5	6.8 1.2 8.4	(13) (13) (13)	14.3 4.3 19.8	(13) (13) (13)	10.6 5.7 12.9	ପତ୍ର
Rigid rucks (c) Articulated trucks Other truck types Total	9.6 48.1 11.1 10.5	හිටලිම	13.5 53.1 6.8 12.4	ලෙවුල	14.6 57.0 8.1 12.7	:ଡଡ଼ିଡ	13.5 52.8 10.7 11.5	:ଚଚ୍ଚିଚ୍ଚ	10.9 37.8 4.0 <b>9.8</b>	:ତ୍ତ୍ୟୁତ	5.0 14.6 1.7 6.9	<b>6</b> (23)(3)	10.5 128.1 30.6 15.8	(5) <del>(5)</del> (5) (5)	13.0 54.2 8.5 11.3	.ଉଉ <u>ସି</u> ଞ
							FEMALE									
Passenger vehicles Motor cycles	7.8	<u>6</u>	8.4 2.5	9	8.3	33	7.4 7.2	_	6.0 0.6	(32)	4.5	(10)	6.8	(33)	7.6	<u>8</u>
Light commercial vehicles (c) Rigid trucks (c) Articulated trucks Other truck types	5.1 3.6 *13.8 0.9	<b>6</b> (2)(3)(3)(3)(3)(4)(4)(4)(4)(4)(4)(4)(4)(4)(4)(4)(4)(4)	4.5 *8.8 15.3 0.9	£38883	3.1 33.7 5.9 8.0	£88£6	5.4 3.4 7.7 6.8 8.0	<b>4</b> (32)	2.8 2.9 14.9 0.1 5.9	6 6 8 3 7 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2.5 7.0 : : <b>4</b>	<u> </u>	.: 0.1 0.1 <b>6.8</b>	3366£	21.9 21.9 2.8 7.3	<u> </u>
						171	PERSONS	1 1		,						
Passenger vehicles Motor cycles Light commercial vehicles (c)	9.5 6.3 9.0	ଚତତ	10.1 6.1 12.1	ଚତତ	10.1 5.4 12.5	ଓଡ଼ିଆ	9.2 4.7 12.1	_	8.1 2.6 9.9	<u>8</u> 23	5.9 1.2 8.0	6 <u>8</u> 8	13.2 4.2 19.8	(11)	9.3 5.5 11.4	විම්වි
Rigid trucks (c) Articulated trucks Other truck types	9.5 47.8 10.0	©E₹6	13.4 52.8 6.5	මෙව්වීම	14.1 56.7 7.9	මලිලිම	13.1 52.6 10.4	:ଚଚ୍ଚି	10.7 37.7 3.9	ତତ୍ୟି	5.0 14.6 1.7	(12) (42) (42) (42)	10.5 127.0 30.3	<u>(5</u> .45)	53.9 8.1	:ଉଉଧି:
IORAI	* /	Đ	10.7	9	10.0	(3)	2	-1	6	(C)	20	E)	0.41		0.6	3

(a) See paragraphs 23-24 of Explanatory Notes on Average concept. (b) Buses are excluded from the calculation for average kilometres in this table. (c) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle.

# APPENDIX

CENSUS OF MOTOR VEHICLES ON REGISTER BY TYPE OF VEHICLE: STATE/TERRITORY OF REGISTRATION AT 30 SEPTEMBER 1991 (revised)(a)

(Number of vehicles)

				Sk	State of Registration				
Type of vehicle	NSW	Vic.	PIÕ	SA	WA	Tas.	NT	ACT	Australia
-									
Passenger vehicles	2,486,022	2,199,140	1,248,096	730,783	782,593	223,724	52,956	138,150	7,861,464
Motor cycles	69,610	70,480	58,661	31,445	38,661	6,161	4,337	4,822	284,177
Light commercial vehicles(b)	410,757	365,206	306,940	116,324	189,298	52,717	22,798	15,695	1,479,735
Rigid trucks(b)	105,556	84,447	57,164	29,695	40,813	11,120	2,236	2,313	333,344
Articulated trucks	14,750	14,358	8,949	4,829	5,829	1,562	1,151	276	51,704
Other truck types(c)	10,468	11,238	2,896	6,479	8,679	3,247	190	813	47,010
Buses	9,748	11,508	8,390	3,140	6,112	1,859	959	1,106	42,519
Total	3,106,911	2,756,377	1,694,096	922,695	1,071,985	300,390	84,324	163,175	10,099,953

(a) Revisions to data in publication Motor Vehicle Census: Australia, 30 September 1991 (9309.0), released 16 June 1992. (b) See paragraphs 7-10 of Explanatory Notes for a description of changes to type of vehicle. (c) In the Motor Vehicle Census, campervans are included in Other Truck Types.

# **EXPLANATORY NOTES**

NOTE: The statistics in this publication reflect new processing procedures recently implemented by both the motor vehicle registration authorities and the ABS, allowing for more accurate classification of vehicles included in the survey frame. As a result, 1991 data processed under this new system are not strictly comparable with previous survey data. Particular attention therefore should be paid to the Explanatory Notes and the table footnotes in this publication.

# Introduction

This publication contains statistics relating to motor vehicle use in Australia for the twelve months ended 30 September 1991. The data were collected in a sample survey conducted by the ABS throughout Australia. This is the eighth 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 1991 or that part for which they were the registered owners.

# Scope of the survey

2. The population for the survey includes all vehicles which were registered for normal road use at 30 September 1991 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, vehicles used exclusively for off road purposes and 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

- 3. The vehicle population (of 10.1 million vehicles) was stratified within each State according to body type as recorded by the State registration authorities. 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, and passenger and other commercial vehicles according to their age, weight or engine capacity. This stratification method was a departure from methods employed in previous surveys. The number of strata has been reduced by using fewer categories for each variable while some previous stratification variables, such as number of axles, were not used in this survey.
- 4. Approximately 42,000 vehicles were selected for the 1991 Survey of Motor Vehicle Use. Of these 27% were private passenger vehicles, 58% commercial vehicles and 15% buses. The sample size in each of the categories was chosen to give a suitable level of precision at the State level for each category for the following key variables: total and average distance travelled, total fuel consumption, total laden distance travelled and total tonne-kilometres of freight (for freight carrying vehicles) and number of passengers carried (for buses).
- 5. Mail questionnaires were despatched in October 1991. Two questionnaires were used; one for buses

(passenger vehicles with 10 or more seats including the driver) and one for all other vehicle types.

6. Where the selected owner had not owned the vehicle for the whole of the survey year, the details provided for the period of ownership were pro-rated to a twelve month equivalent. The statistics therefore relate to the annual rate of use of vehicles registered at the survey date of 30 September 1991. Details reported for seasonal use vehicles (i.e. those registered and used on public roads for only part of the year) were not pro-rated and were treated as if used for the full period.

# Vehicle classification

- 7. The survey frame, used to select the sample, generally reflects the classification of vehicles as recorded on motor registry files. Both the motor registries and the ABS have, in recent years, taken considerable steps to improve data quality through the introduction of improved processing and classification systems and the incorporation of additional verification procedures. Vehicles such as minibuses which, in the old system, had been classified to cars and station wagons in some States but to buses in other States are now consistently classified (by ABS) to passenger vehicles.
- 8. In addition, the ABS has incorporated the third Australian Design Rule (3ADR) body coding classification categories for light and heavy commercial vehicles into its revised vehicle classification system. Under the new classification rules, only vehicles with a Gross Vehicle Mass (GVM) greater than 3.5 tonnes are classified as heavy commercial vehicles (see paragraph 17). Vehicles with a GVM of less than or equal to 3.5 tonnes are now coded as light commercial vehicles (utilities, panel vans, forward control vehicles, etc.). As a result of this classification change there has been an increase in the number of light commercials in some States with corresponding falls in rigid trucks of more than 3.5 tonnes when compared with 1988.
- 9. The vehicle type categories used for the 1991 survey are the same as in 1988 except for the renaming of cars and station wagons to passenger vehicles, utilities and panel vans to light commercials and non-freight carrying trucks to other truck types.
- 10. As in previous years, the survey results are classified by the type of vehicle as reported by the vehicle owner rather than as recorded by the motor vehicle registration authorities. However, due to steps taken to improve the quality of registry data, discussed above, the degree of discrepancy between registered and reported vehicle type is now considered to be less than in previous surveys. Additionally, where the reported vehicle types light commercial and rigid trucks differed from the registered vehicle type, the GVM (or tare weight if GVM was not recorded) was checked and the vehicle type amended to agree with registry data where applicable.

# Comparison with Motor Vehicle Census data

11. Survey estimates of numbers of vehicles, by vehicle type, as at 30 September 1991, may not be fully consistent with the count of vehicles on register with State and Territory registration authorities as at 30 September 1991 or with the Motor Vehicle Census (see *Motor Vehicle* 

Census Australia, 1991 - Catalogue No 9309.0). The main reasons for such differences are:

- the classification of vehicles in the survey to the 'as reported' vehicle type (with the exception of light commercials and rigid trucks) which may differ from the type of vehicle recorded by the motor registries;
- the exclusion from the survey of vehicles on register which fall outside the survey's scope (eg consular, diplomatic and defence vehicles) and, where they could be separately identified, vehicles used exclusively for off road use and vintage and veteran vehicles;
- the inclusion of campervans with passenger vehicles rather than with other truck types as in the census; and
- the use of a sample rather than a complete enumeration of the population (discussed under *Reliability of estimates*).

It should be noted that since the Motor Vehicle Census publication was issued in June 1992 there have been some revisions to census data. Amended statistics are included as an Appendix to this publication.

# **Description of terms**

- 12. The *purpose* classification is used to classify annual kilometres travelled by vehicles into the categories 'business' (laden unladen), 'to and from work' and 'private'.
- 13. Business kilometres includes 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, ie. light commercials, rigid trucks and articulated trucks.
- 14. Travel to and from work only includes travel between place of residence and place of work at the beginning and end of each work day.
- 15. Passenger vehicles are vehicles constructed primarily for the carriage of less than 10 passengers (including the driver). Included are cars, station wagons, 4WD passenger vehicles and forward control passenger vehicles.
- 16. Light commercial vehicles are vehicles constructed primarily for the carriage of goods and not exceeding 3.5 tonnes gross vehicle mass (GVM). Included are utilities, panel vans, cab chassis and forward control load carrying vehicles (whether 4WD or not).

# 17. Heavy commercial vehicles:

Rigid trucks are vehicles exceeding 3.5 tonnes GVM, constructed primarily for the carriage of goods. Included are normal rigid trucks with a tow bar, draw bar or other non-articulated coupling on the rear of the vehicle for use with a trailer or dolly.

Articulated trucks are vehicles constructed primarily for the carriage of goods, consisting of a prime mover having no significant load carrying area, but with a turntable device which can be linked to a trailer.

- 18. The Other truck types classification includes 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.
- 19. The Buses classification comprises all passenger vehicles with 10 or more seats including the driver.

# Area of operation

20. Definitions of area of operation which apply for this survey are set out below:

# (a) Capital City

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

Melbourne — This includes the towns of Werribee, Sunbury, Craigieburn, Whittlesea, Healesville, Berwick and the whole of Mornington Peninsula

Brisbane — This includes the area bounded by the towns of Caboolture, Beenleigh; the Redland Shire; the City of Ipswich and eastern part of the Pine Rivers Shire. It also includes the City of Redcliffe

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 is approximately the area bounded by Yanchep and Bullsbrook; Warnbro and 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 turnoff

Canberra — This includes Canberra and environs (excluding Queanbeyan).

## (b) Provincial Urban Areas

For this survey these were defined 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 upon the 1986 Population and Housing Census, i.e.

NSW — Within the areas of Newcastle, Wollongong, Bathurst-Orange, Maitland, Albury (excluding Wodonga), Tweed Heads (excluding Gold Coast), Queanbeyan (excluding Canberra ACT)

Vic. — Within the areas of Geelong, Ballarat, Bendigo, Wodonga (excluding Albury)

Qld — Within the areas of Sunshine Coast, Bundaberg, Rockhampton, Mackay, Townsville, Cairns, Gold Coast (excluding Tweed Heads), Toowoomba

Tas.— The areas bounded by the towns of Launceston, Burnie, Devonport, Penguin, Ulverstone and La Trobe

Provincial Urban Areas are not applicable in SA, WA, NT and ACT.

## Other terms used

- 21. Total tonne-kilometres is the product of reported average load and total business kilometres travelled while laden. Total fuel consumption is the product of total kilometres travelled and reported average fuel consumption (expressed in litres/100 kms) for each vehicle. Estimated rate of fuel consumption is calculated by dividing the total fuel consumption by total kilometres for each vehicle type.
- 22. 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 to the extent that transhipment occurs (ie. the transfer of goods and freight from one vehicle to another), the actual physical quantity of goods and freight moved during the survey period. Average load carried is calculated by averaging the average loads reported by each vehicle owner. Only those vehicles with laden business kilometres are included.

# Concepts of averages

23. 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 10 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.

24. For Tables 4 and 6 all vehicles 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. For Tables 10, 12, 14, 16 and 18, however, vehicles which travelled zero distance are excluded from the denominator as the tables relate to actual vehicle usage. In Tables 10 and 12 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. In 1988 zero use vehicles were excluded from the denominator for all tables.

# Reliability of estimates

- 25. Two types of error are possible in an estimate based on a sample survey: sampling error and non-sampling error. The sampling error is a measure of the variability that occurs by chance because a random sample, rather than an entire population is surveyed. Since the estimates included in this publication are based on information obtained from a sample of vehicle owners, they are subject to sampling variability; that is, they may differ from the estimates that would have been obtained from a complete enumeration using the same questionnaire and procedures. One measure of the likely difference is given by the standard error (S.E.), which indicates the degree by which an estimate might vary by chance from the value that would have been obtained from a complete enumeration. 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 nineteen chances in twenty that the difference will be less than two standard errors.
- 26. In this publication, sampling variability is measured by the relative standard error which is obtained by expressing the standard error as a percentage of the estimate to which it refers and is shown in the tables as SE(%). The relative standard error is a useful measure in that it provides an immediate indication of the percentage error likely to have occurred due to sampling.
- 27. As an example of the above, in Table 6 the estimate of average kilometres for all passenger vehicles registered in Australia is 14,300 kilometres with a relative standard error of 1 per cent of the estimate, i.e. 143 kilometres. That is, there are about 2 chances in 3 that the value which would have been obtained from a complete enumeration would have been a figure in the range 14,157 kilometres to 14,443 kilometres and about 19 chances in 20 that it would have been in the range 14,014 kilometres to 14,586 kilometres.
- 28. Some of the standard errors associated with the estimates contained in this publication are relatively high. In general, the smaller the estimate the higher the relative standard error. Very small estimates are thus subject to high standard errors. However, any limit for publication purposes would have been arbitrary and it was therefore decided to publish comprehensive statistics including selected estimates with high relative standard errors. It is important for users to check that the estimates are reliable enough for the particular purpose for which they require the statistics. It is left to the user to exercise the necessary caution in using the estimates in this publication.

29. The imprecision due to sampling variability, which is measured by the standard error, is not the only type of inaccuracy to which estimates are subject. Other inaccuracies, referred to collectively as non-sampling error, may occur because of deficiencies in the data received from the registration authorities, form design limitations, imperfections in reporting by respondents due to many of the respondents (particularly owners of private vehicles) not keeping adequate records to supply all the information requested, errors made in collection such as in recording and coding data and errors in processing the data. Non-sampling error may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce non-sampling error to a minimum by careful design of questionnaires, efficient operating procedures and appropriate methodology.

# **Data Quality**

30. The quality of data is a function of several factors including form design limitations, collection difficulties, processing procedures, data capture and output requirements. Some of these factors can be readily quantified, such as the size of the sampling error associated with the use of scientific sample design. Other (non-sampling) errors are more difficult to quantify and largely depend on the expertise of the collection agency.

## Sample Design

31. Two major changes were made in respect of the 1991 Survey design which had the effect of producing standard errors more representative of the reliability of the estimates. A reduction was made to the sample size (from 67,000 vehicles in 1988 to 42,000 in 1991), to reduce both the level of respondent burden and processing costs, while still providing data at a pre-determined level of quality. The number of strata was collapsed to reduce the amount of mis-stratification found in previous surveys, especially in respect of rigid trucks, other truck types, and minibuses.

# Classification

- 32. The use of 3.5 tonnes GVM as a cut-off to distinguish light commercial vehicles from rigid trucks, as well as the reclassification of minibuses with less than ten seats to the passenger vehicle category, affects the comparability of figures across survey years for these vehicle types.
- 33. Extensive development work was undertaken during 1990 and 1991 to decode and standardise the eight State and Territory Motor Registries' data accurately, prior to stratification and sample selection.
- 34. Approximately 200 vehicles in the 1991 Survey were reported by their owner to be out of scope (refer to paragraph 2 of Explanatory Notes), and have been classed as 'deaths' in the sample. Along with live Survey returns, these 'deaths' have been expanded and used to represent the number of out of scope vehicles in the Motor Vehicle Census (MVC) population.
- 35. This differs from the procedures applied to previous surveys: in the 1988 Survey, vehicles found to be out-of-scope were in fact estimated, along with non-response records, as 'alive', and included in tables. The inclusion of 'deaths' in the 1991 estimation process has resulted in slightly lower final estimates. The impact of this methodology change is in the region of 0.25 per cent for total distance, total business distance, estimated

number of vehicles and total fuel consumption, while total tonne-kilometres has been affected by approximately 1 per cent.

## Respondent Burden

- 36. The current methodology of the SMVU requires respondents to recall details of their vehicle's use over the twelve months leading up to 30 September 1991. The majority of respondents do not have detailed records to provide the requested statistics, and the accuracy of the final results is limited by the fact that the collected data is an approximation in many cases.
- 37. More than 50 per cent of usable Survey records reported total distance rounded to the nearest 10,000 kilometres: this occurs just as frequently among freight carrying vehicles (where one could expect records may be kept) as in the private non-freight vehicle sector. Gross rounding of reported values naturally limits the accuracy of the Survey outputs. It is expected that errors would be random and tend to cancel each other out.
- 38. An Odometer Survey run in conjunction with the 1988 SMVU found that 1988 results overestimated the total distance travelled by an average of 12 per cent. Passenger vehicles were more likely to be overestimated than the heavier commercial vehicles. While the exact magnitude of the bias may change with each Survey, the same essential problems of lack of record keeping and broad estimation still exist.
- 39. Details obtained from respondents covered the sex, age, driving experience and the proportion of total distance driven in the vehicle by each driver. In the case of vehicles such as taxis, fleet vehicles and self-drive vehicles accurate records of the distance travelled by drivers were not necessarily kept. Also if a driver drove more than one vehicle this would lead to an under-estimation of the average distance driven by a driver.
- 40. In light of the above comments highlighting the broad indicative-only nature of some of the results, caution is urged in the interpretation of the figures.

# Editing

- 41. Extensive editing of reported data was undertaken to ensure the consistency of results. An audit log was developed to record the progress of approximately 10 per cent of the sample through the verification processes. Based on analysis of the audit log, editing and imputation has had a substantial impact on the estimates.
- 42. Approximately 13 per cent of all records in the audit log had no value reported for total distance, when first returned to the ABS, while 31 per cent of respondents could not supply their vehicle's rate of fuel consumption in the preferred unit of litres per hundred kilometres.

# Form Design

43. In 1991, a new form (MV4), combining questions for both private and commercial vehicles (except buses) was utilised, along with the established MV3 (bus) form. The MV4 form enabled a wider range of data to be collected; reduced production, despatch and processing costs; and prevented much of the confusion between private use and commercial use vehicles evident in 1988.

# Other

44. Some results for the Northern Territory appear to show substantial growth compared with 1988 results. However, due to inadvertant undercoverage of registered vehicles in that Territory in 1988, comparisons should be treated with caution.

# Unpublished statistics

45. As well as the statistics included in this publication, the ABS has other relevant unpublished data available. An information kit outlining various options is available. Inquiries should be directed to the contact officer in the Phone Inquiries box at the front of this publication.

# Related publications

46. Users may also wish to refer to the following publications containing statistics relating to motor vehicle registrations and the transport industry.

Motor Vehicle Census, Australia, 30 September 1991 (9309.0) — issued triennially.

Registrations of New Motor Vehicles, Australia, Preliminary (9301.0) — issued monthly.

Motor Vehicle Registrations, Australia, (9303.0) — issued monthly.

Motor Vehicle Registrations, Australia, (9304.0) — issued annually.

Interstate Road Freight Movement, Australia, (9214.0) — issued quarterly.

TRANSTATS, (9312.0) — issued triennially

Symbols and other usages

km kilometres
n.a. not available
.. not applicable
SE(%) relative standard error

break in continuity of series (where a line is drawn between two consecutive figures in the same column, or alongside two or more figures in consecutive columns)
relative standard error of the estimate

exceeds 50%

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



# For more information ...

The ABS publishes a wide range of statistics and other information on Australia's economic and social conditions. Details of what is available in various publications and other products can be found in the ABS Catalogue of Publications and Products available at all ABS Offices (see below for contact details).

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