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Road Accident Casualties

Research Note Number 2 of January 1995 showed that ***deaths*** from road accidents had declined in recent years in Australia. Figures in recent editions of the *Human Development Report* published for the United Nations Development Programme have also indicated that ***total casualties*** from road accidents have declined significantly over a similar period, to the point where by 1990-91 Australia appeared to have the lowest injury rate from road accidents of all highly developed countries in the world. While the basis for this claim is somewhat weak because of the method of calculation, Table 1 shows that there is no doubt that the rate of 'improvement' in road accident casualties in Australia is certainly one of the best in the world.

Whilst the figures in Table 1 may have been influenced by the timing of the introduction of provisions such as seat-belt wearing (SBW), blood-alcohol content (BAC) and random breath-testing (RBT) laws, these regulations were already in place in Australia before the reference period in this table. In Australia relevant SBW laws were introduced in 1970-72, BAC laws in 1966-74 and RBT laws in 1976-86. Thus the improvement could indicate the continuing 'educative' advantages arising from the imposition and enforcement of these regulations.

Table 1. Hospitalisations Resulting From Road Accidents

Country	1993(a)	Change: 1989 to 1993(b)
Australia	**122.3**	**-38.7**
Denmark	89.9	-32.5
Luxembourg	114.4	-29.8
Canada	82.7	-27.7
Belgium	145.3	-26.9
Ireland	94.3	-26.3
W. Germany	139.1	-25.6
Netherlands	75.9	-21.6
New Zealand	195.9	-21.0

(a) Persons admitted to hospital because of road accidents per 100 000 population.
(b) Percentage change in persons admitted to hospital because of road accidents per 100 000 population from 1989 to 1993.
Source: Federal Office of Road Safety.

Table 2 shows that similar changes have occurred, over a longer period, in the rates of death resulting from road accidents. Again, using the same measure, rate per 100 000 population, Australia has had the best record of improvement amongst the countries shown: a reduction of 39.8% compared with the next best country, the UK, at 35.6%. As ratios of hospitalisations to deaths tend not to change very much over time, it is likely that the Australian rate of reduction in the road toll therefore was the best in the world over this period despite, again, SBW, BAC and most RBT laws having been introduced before 1984 – the trade-off between a lower road toll and fewer restrictions on freedom other countries may reconsider.

Table 2. Road Accident Fatalities Per 100 000 Population: Selected Countries

Year	Australia	USA	UK	Canada	N. Zealand	Japan	Sweden	W. Germany
1984	18.1	18.7	10.1	16.3	20.3	7.7	9.6	16.7
1985	18.6	18.3	9.4	17.2	22.6	7.7	9.7	13.7
1986	17.9	19.4	9.9	15.9	23.1	7.7	10.1	14.6
1987	17.0	19.0	9.4	16.7	23.8	7.6	9.4	13.0
1988	17.5	19.8	9.2	16.0	21.7	8.4	9.6	13.4
1989	16.7	18.4	9.7	16.2	22.5	9.0	10.6	12.9
1990	13.7	17.9	9.4	15.0	21.4	9.1	9.0	12.6
1991	12.2	16.6	8.2	13.7	18.8	9.0	8.6	(a)14.1
1992	11.3	15.4	7.6	12.3	18.5	9.2	8.7	(a)13.2
1993	11.3	15.6	6.7	12.3	17.1	8.8	7.2	(a)12.3
1994	10.9	n.y.a.	6.5	11.1	16.2	8.6	6.7	(a)12.1

(a) United Germany.
n.y.a. – not yet available.
Source: Federal Office of Road Safety.

Table 3. Road Accident Fatalities Per 10 000 Registered Vehicles: Selected Countries

	Australia	USA	UK	Canada	N. Zealand	Japan	Sweden	W. Germany
1984	3.2	2.6	2.9	2.8	3.4	1.4	2.4	3.8
1985	3.2	2.5	2.5	2.9	3.7	1.4	1.9	2.8
1986	3.2	2.6	2.7	2.7	3.7	1.3	2.4	3.0
1987	3.0	2.6	2.7	2.7	3.7	1.3	2.4	3.0
1988	3.0	2.6	2.2	2.5	3.4	1.4	2.2	2.5
1989	2.9	2.4	2.3	2.5	3.4	1.5	2.3	2.4
1990	2.3	2.3	2.1	2.3	3.1	1.4	1.9	2.2
1991	2.1	2.1	1.9	2.1	2.9	1.4	1.9	(a)2.6
1992	1.9	2.0	1.8	2.0	2.9	1.4	1.9	(a)2.4
1993	1.9	2.0	1.3	2.0	2.7	1.3	1.6	(a)2.2
1994	1.9	n.y.a.	1.4	1.8	2.5	1.6	1.5	(a)2.1

(a) United Germany.
n.y.a. – not yet available.
Source: Federal Office of Road Safety.

Table 4. Road Accident Fatalities Per 100 Million Vehicle Kilometres Travelled: Selected Countries

Year	Australia	USA	UK	Canada	N. Zealand	Japan	Sweden	W. Germany
1982	2.6	1.7	2.3	2.3	2.9	2.3	1.8	3.4
1985	2.1	1.5	1.9	2.4	3.0	2.2	1.7	2.3
1988	1.9	1.5	1.3	n.a.	n.a.	1.8	1.5	1.9
1991	1.4	1.2	1.1	n.a.	n.a.	1.7	n.a.	1.6

n.a. – not available.
Source: Federal Office of Road Safety.

On each of the standard measures of road accident fatality rates shown in Tables 2-4, the Australian situation has improved significantly in recent years. However, these figures also show a similar trend in most other countries. The rates of improvement shown in Tables 3 and 4 are not as good for Australia relative to some other countries in the tables compared to the rates reflected in Tables 1 and 2. This may be because of the variations in the quality of the road surfaces, the safety standards required for vehicles and drivers' skills. Economic conditions are also believed to affect the rate of accidents in any particular country: when there is a downturn or recession the amount of private or personal driving has been shown to decline so there is less 'opportunity' for accidents.

It is generally accepted that the type of road ***system*** has perhaps a more significant bearing on accident, and therefore on hospitalisation and on death, rates. The evidence shows that the more 'open' the road system the more likely it is that there will be serious accidents. Thus physically small countries with high population densities (and more comprehensive public transport systems), such as the UK, Belgium and the Netherlands, are more likely to have the lowest rates of (serious) accidents, because journeys are predominantly shorter and at slower speeds; physically larger countries with high population densities, such as Germany and Sweden are more likely to have higher rates and physically large countries with lower population densities, such as Canada and Australia are likely to have the highest rates, because on average journeys are much longer and at higher and therefore more dangerous speeds. On this basis the Australian record is better than would be expected.

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