

**OECD TRANSPORT DIVISION
RTR PROGRAMME**

**ROAD SAFETY PERFORMANCE -
TRENDS AND COMPARATIVE ANALYSIS**

ROAD SAFETY TRENDS IN OECD COUNTRIES

1. Trends in road fatalities - 1990 to 2000

Between 1990 and 2000, there has been a 21% reduction in overall road fatalities in OECD countries. Over the same period, there has been a 0.5% increase in the number of injury crashes.

Among the 29 OECD countries for which 1990 and 2000 data are available, road fatalities have:

- reduced by more than 30% in 10 countries (Hungary, Finland, Turkey, Austria, New Zealand, Spain, Switzerland, the United Kingdom, Germany and Portugal)
- reduced by between 30 and 10% in 12 countries (Japan, France, Korea, Canada, Belgium, Sweden, Australia, Denmark, Netherlands, Poland, Ireland, Italy)
- reduced by 6% in the United States.
- increased in six countries (Iceland, Czech Republic, Luxembourg, Greece, Norway and Slovak Republic).

Many of these countries (e.g. Sweden, the Netherlands or the United Kingdom) had already achieved major reductions by 1990. Further reductions in fatalities have become progressively more difficult to achieve. Concerted and sustained action is needed to improve on recent results.

Although the U.S. road fatality rate in terms of killed per billion vehicle-kilometres travelled is among the lowest in OECD countries, road fatalities in the United States have not decreased as rapidly as 'other OECD' countries taken as a group (i.e., excluding the United States). This has led to the US proportion of overall OECD fatalities increasing from 27% in 1990 to 34% in 2000.

2. Trends in road fatalities: 2001

Overall road fatalities in 2001 were on average 4.4% lower than in 2000, based on results reported by 21 OECD countries.

3. Trends in road fatalities: 2002

	1st semester 01	1st semester 02	Change
Australia	841	858	2.0%
Austria	427	410	-4.0%
Czech Republic	565	603	6.7%
Denmark	189	187	-1.1%
Germany	3186	3328	4.5%
Hungary	520	589	13.3%
Japan	4616	4526	-1.9%
New Zealand	245	220	-10.2%
Norway	139	148	6.5%
Slovak Rep	267	261	-2.2%
Spain	2121	1990	-6.2%
Sweden	241	268	11.2%
Total	13357	13388	0.2%

Source: OECD International Road Transport Accident Database (IRTAD)

data are available)								
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SEAT BELTS - WEARING RATES

Seats belts in motor vehicles are a primary safety device. Enforcement of seat belt wearing is a relatively inexpensive measure that can significantly reduce road crash fatalities and serious injuries.

Studies done in various OECD countries have concluded that around 50% of road crash victim lives could have been saved if the victim had been wearing his/her seat belt at the time of the crash.

While seat belt wearing rates have increased – and rates above 90% are becoming more common in many countries - seat belt wearing rates remain below 75% in a number of OECD countries. In addition, in a number of OECD countries (e.g. Czech Republic, Hungary, Japan), seat belt wearing is not compulsory in the rear seats which translates to very low seat belt wearing rates (around 9% in Czech Republic in rear seats).

The OECD strongly supports the efforts of all OECD member governments to achieve high seat belt wearing rates in both front and rear seats.

COMPARISON OF SEAT BELT WEARING RATES SELECTED OECD COUNTRIES - 2001

Country	Urban Roads – wearing rate (%)	Rural Roads - wearing rate (%)	Motorways – wearing rate (%)
Australia - New South Wales	96%		
Austria	67	72	74
Czech Republic	44	61	81
Denmark (2000)	73	86	88
Finland	78	92	
France	81	95	97
Germany	92	95	98
Great Britain	88	93	
	91 ¹ /79 ² (2000) (all roads)		
Hungary	48	52	63
Japan (2000)	89		96
Netherlands (2000)	74	86	87
New Zealand	90	93	
Norway ³	82/89/79	94/95/85	92/87/83
Sweden (2000)	90 ⁴ /70 ⁵		
Switzerland	66	76	
United States (2000)*	72	68	

* A 2002 Survey shows an overall wearing rate of 75 percent

Sources : 1. OECD International Road Transport Accident Database (IRTAD)

¹ Car driver

² Rear seat

³ Driver/front seat passenger/rear seats

⁴ Front seat

⁵ Rear seat

2. Survey of Member countries conducted by the OECD in 2001.

Note: Airbags are a supplementary safety device that can add to the safety protection of car drivers and passengers already wearing seat belts.

MOTORCYCLE FATALITIES

Road safety data show a disturbing trend in the number of motorcyclists killed in OECD countries.

Overall Trends

Between 1997 and 2000, the number of motorcycle fatalities increased by 41% in Canada and by 39% in the United States. This very large increase in motorcycle fatalities occurred at the same time as the overall number of road user fatalities decreased in the US and Canada by 4.5% and 0.2% respectively. Similar upwards trends in motorcycle fatalities are being observed in other OECD countries having high motorcycle ownership.

Comparative trends in overall road user and motorcycle fatalities: 1997 - 2000

	All Road User Fatalities	Motorcycle Fatalities
Australia	+3.2%	+11%
Canada	-4.5%	+41%
France	-4.3%	+ 7%
Italy	-4.7%	+36%
United Kingdom	-4.4%	+18%
United States	-0.2%	+39%

Highest Risk Riders

Over the past 10 years, there has been a dramatic increase in the proportion of motorcycle fatalities involving persons aged 25-64. While the 25-64 age group represented around 50 % of motorcyclists killed in 1990, in most countries this age group now represents more than 70 %.

Motorcycle fatalities: Trends in Age Group Fatalities, 1990-2000

Country	Year	Fatalities by Age Group (%)		
		15-20	21-24	25-64
France	1990	23%	31%	45%
	1995	13%	26%	59%
	2000	8%	18%	72%
UK	1990	31%	22%	45%
	1995	14%	17%	66%
	2000	10%	9%	78%
US	1990	18%	19%	59%
	1995	12%	20%	66%
	2000	9%	11%	76%

Recent data available from the US in particular confirms that the people most affected by this recent increase in motorcycle fatalities are male riders in the over 40 age group. This group includes a high number of males who used to ride a motorcycle in their late teens and who now have purchased very powerful motor bikes – increasingly with engine capacity over 1000 cc.

Sources:

1. OECD International Road Transport Accident Database (IRTAD)

DRUGS IN TRAFFIC

Recent safety investigations of road crashes in several OECD countries have highlighted a worrying increase in drug use amongst road crash victims.

A substantial number of drugs other than alcohol have been shown in tests and studies to impair performance of driving-related tasks. Driving under the influence of drugs other than alcohol now appears to be an increasingly widespread road safety problem:

- The UK Department for Transport reported in 2002 that 18% of fatalities have one or more illegal drugs at post mortem test⁶.
- In the Netherlands, research shows the use of illicit drugs by Dutch motorists had approximately doubled over the past 5 years⁷. It rose from 5.5% to 11% on weekend nights.
- State Police⁸ in Victoria, Australia have been reported as estimating that 29 % of drivers involved in fatal accidents in 2000-01 were drug-affected. By comparison, over the same period, alcohol was implicated in 22 % of deaths.

Recent research in the Netherlands⁹ has found that the combined use of alcohol and drugs can increase the injury risks for motorists dramatically by comparison with entirely sober motorists. Medical associations recognise that the problem with drug taking is not merely related to drug misuse in terms of illegal drugs¹⁰.

Different approaches may be needed to address the risks associated with different types of drugs¹¹. For example:

- Driver impairment arising from the proper use of medications may be best addressed by advice from doctors, pharmacists and other health professionals
- Driver impairment from the deliberate improper use of medications and the use of illicit drugs probably requires a different approach, but there may still be scope for education and information programmes.

The effects of drugs other than alcohol on driving ability are not well understood by drivers. The OECD therefore supports the efforts being made by member governments to educate health professionals and the public about the impairing effects on driving ability of the combined effects of some drugs and alcohol

Most OECD countries have legislation making it an offence to drive while under the influence of drugs. In some countries, such as Belgium and Germany, the legislation targets substances known to impair driving and is based on a "zero tolerance" principle..

Some OECD countries (eg Australia - Victoria) are considering introducing new legal arrangements to allow for random drug testing similar to those applied for drink-driving.

⁶ UK Department for Transport Safety Research Programme 2002

⁷ SWOV Dutch Institute for Road Safety Research 2002

⁸ Victorian Police Assistant Commissioner, Australia 13 November 2002

⁹ SWOV Dutch Institute for Road Safety Research 2002

¹⁰ British Medical Association (BMA) Press Release on Drugs and Driving March 2002

¹¹ Safety on Roads – What's the Vision? OECD 2001.