

Young Drivers: The Road to Safety

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Introduction

Road crashes are the single biggest killer of 15-24 year-olds in industrial countries. More than 8 500 young car drivers die in the 30 OECD countries each year. Young drivers are not just a danger to themselves; they also pose a greater risk to their passengers and other road users.

Crash death rates for drivers under 25 are roughly double those of older drivers. Young men are particularly at risk, with death rates of up to three times those of young women.

In addition to the terrible human cost, such tragedies impose a heavy financial burden on societies – according to one study, the total cost of a single road death is around one million euros.

Why should this be? The answer lies in a lethal mixture of age, inexperience and gender. Lack of experience shows in all new drivers, whatever their age. But physical and emotional immaturity and the lifestyles associated with youth also increase risk. And young men are particularly both the source of, and victims of traffic safety risk.

Governments cannot wave a magic wand to make youngsters safer overnight, and there are no short cuts to experience. But there are measures that can help reduce the risks associated with young drivers. This *Policy Brief* looks at how we can improve young drivers' safety, a vital task if governments hope to reduce the overall impact of road transport on human health. ■

How (un)safe are young drivers?

Driving age young people under 25 make up around one-tenth of the population in OECD countries, but represent more than a quarter of car drivers killed on the road (See Figure 1). And they are not only a danger to themselves. Studies in the US and the Netherlands show that for every 10 young drivers killed, 13 passengers or other road users also die in the same crashes.

Worldwide, road crashes are the single greatest cause of death for men aged 15-29, and the second greatest for 15-29-year-olds overall, according to World Health Organization (WHO) figures.

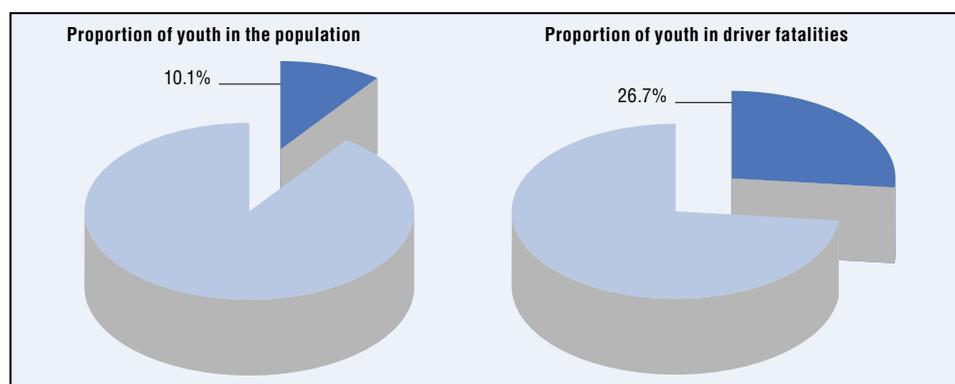
Even in countries with a good overall road safety record, large numbers of young lives are being lost on the roads – more than 8 500 young car drivers die in OECD countries every year, and death rates for young drivers are typically about double those of older drivers. Although overall road safety is improving, the ratio between young and older driver death rates has not improved in many countries, so there is clearly a need for specific measures to tackle the problem of young people’s safety on the roads (See Figure 2).

Young men are particularly at risk, with death rates up to three times higher than those for young women. To make matters worse, the risk for young male drivers compared to older drivers has actually risen in a number of countries over the past decade. In the UK, for example, in 1994 a young male driver’s risk of being in a fatal crash was a little over 4.5 times that of a driver aged 30-59; by 2002 this had risen to 7 times greater.

Young drivers have high numbers of crashes when driving at night and on weekends, and when carrying young passengers. Many crashes are the result of speeding and while driving under the influence of alcohol or drugs. Failure to use seatbelts is also a key factor in death and injuries. Young people are over-represented in single-car and loss-of-control crashes, and crashes where the driver is turning across oncoming traffic.

Apart from the enormous social costs, these highway tragedies impose a huge economic cost burden. In the US alone, crashes involving 15-20 year-old drivers cost an estimated \$40 billion in 2002. ■

Figure 1.
PROPORTION OF YOUTH IN DRIVER FATALITIES AND POPULATION
OECD Countries, 2004



Note: “Youth” defined as driving age persons under age 25. Depending on the licensing system in each country, this could be 16-24, 17-24 or 18-24.

Source: International Road Traffic Accident Database (IRTAD).

Why are young drivers more at risk?

There are three main reasons why young drivers have such high crash rates – lack of experience, age and gender.

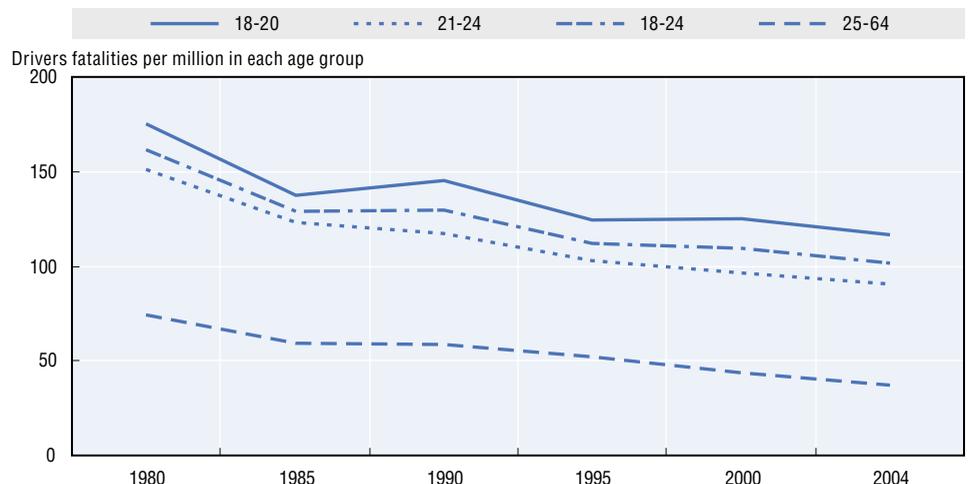
Good drivers are made, not born, and learning to drive safely takes time and needs extensive practice. With time, the actions of driving – changing gears, looking in the rear-view mirror, steering, correctly assessing situations, reacting appropriately, etc. – become automatic. However, the novice driver has to think about these actions, increasing overall mental workload and possibly distracting attention from the road.

Gaining sufficient experience is key in remedying the situation – the risk of a crash falls sharply during the first year of unaccompanied driving.

But the age at which young people are allowed to start solo driving is also important. The lower the minimum driving age, the higher the crash rate among novice drivers. Young people are physically and emotionally less mature, and thus less able to assess risk than older drivers. Recent research indicates that the parts of the brain responsible for inhibiting impulses and weighing the consequences of decisions may be under development until well after the teenage years. Young people are also at an age where they are testing boundaries and asserting their independence, as well as typically enjoying an intense social life. This includes being active at night and at the weekend, often carrying passengers of a similar age. They may be inclined to show off, be susceptible to peer pressure, and drive too fast or under the influence of alcohol or drugs.

Young men drive more than young women, so should theoretically gain experience more quickly, but in fact they have many more fatal crashes per kilometre driven (See Figure 3). This may be explained by the fact that young men are generally more inclined toward risk-taking, sensation-seeking, speeding and anti-social behaviour than young women. They are also more likely to over-estimate their driving abilities and more susceptible to the influence of their friends.

Figure 2.
DRIVER FATALITIES PER MILLION POPULATION FOR DIFFERENT AGE GROUPS
Austria, Great Britain, the Netherlands, Sweden, Switzerland and the US



Source: IRTAD.

All these factors contribute to the higher risk for young drivers. But some are more risk-prone than others. Certain personality types are particularly subject to high crash risk. Social norms, including peer pressure and the emphasis placed on rebellion in youth culture, can affect driving style, as do the examples provided by role models. Alcohol, drugs, fatigue, emotions and in-vehicle distractions, such as mobile telephones, all impair a driver's abilities. And young people may only be able to afford older vehicles with fewer safety features.

In short, young drivers' high risk levels are a product of both who they are and of their environment. ■

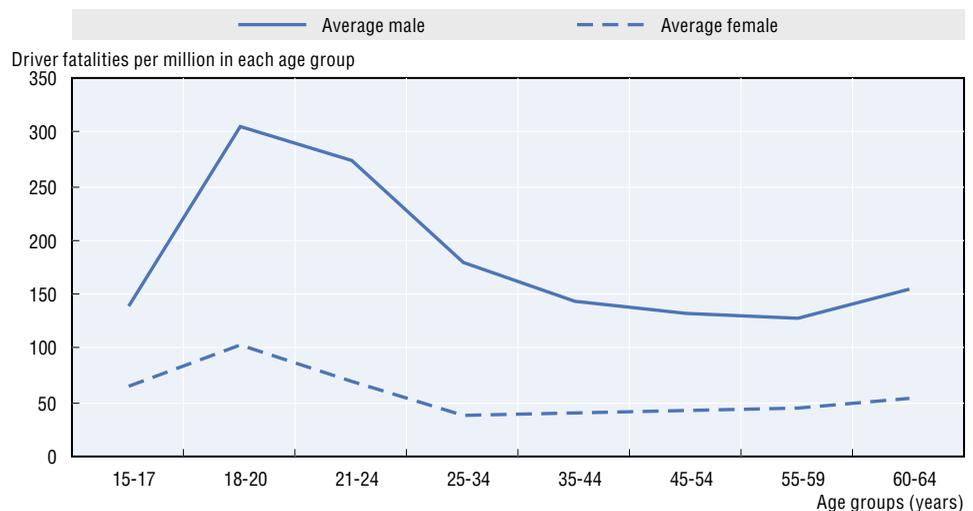
Can anything be done to make young drivers safer?

Most young drivers, male or female, are not deliberately unsafe. But governments trying to find ways to reduce the risk for this group face a paradox: youngsters need to gain experience to make them safer, but it is precisely the process of gaining that experience on the road after licensing for solo driving that exposes them, and others, to risk.

There is also the danger that if driving becomes too restrictive for young people, they will lose out by being unable to get to school, work, or social events. If governments are seen as unfairly penalising young people, the measures will not be accepted. And if it becomes too difficult or expensive to drive a car, young people could switch to riskier forms of transport, such as motorcycles.

Nonetheless, there are measures that governments can take to help make young drivers safer, from increasing experience levels before solo driving to making more use of new technology. But there is no single solution – reducing young driver risk requires a co-ordinated approach involving a wide range of actors from parents to legislators and of course young drivers themselves. Measures will only be successful if there is public and political acceptance of the gravity of the problem and the need to act.

Figure 3.
ROAD USER FATALITIES PER MILLION POPULATION, BY GENDER AND AGE
Various OECD Countries, 2003



Source: IRTAD.

A key first step is to ensure the highest possible overall standards of road safety. Young people can be expected to benefit to a great extent from general road safety measures, especially in countries where the road safety performance is relatively low. But this is not enough. It is also essential to address the specific problem of young, novice drivers. ■

Would changing the licensing system help?

The licensing process itself presents important opportunities to reduce risk. The younger a person starts unrestricted solo driving, the more likely he or she is to have a fatal accident, particularly below the age of 18. It is therefore extremely important to set an appropriate minimum age for unrestricted solo driving. Administrations should resist any pressure to lower current licensing ages and remember that increasing the licensing age for solo driving would reduce fatalities. Conditions for driving motorcycles and mopeds should be similarly stringent to prevent migration to less safe forms of transport.

Safe drivers are made, not born, so would-be young drivers need to obtain substantial experience in lower-risk conditions before being let loose alone on the roads. High levels of accompanied practice in a variety of driving circumstances will result in lower levels of fatalities. While at least 50 hours of practice are recommended in any system, experience in Sweden showed that increasing this to 120 hours reduced crashes in the two years following licensing by about 40%.

Since the first year of solo driving is known to be the most dangerous, governments could also apply special restrictions in that period to protect young novice drivers. Authorities should impose a special alcohol limit – a maximum blood alcohol content (BAC) of 0.2 g/l – on novice drivers, since young drivers have been shown to be more susceptible to the effects of alcohol than older drivers. Also, experience in various countries shows that important risk reductions result from restricting driving with young passengers and/or at night until drivers have gained experience. ■

How important is formal training?

Formal training, involving a qualified instructor, is not generally proven effective in reducing post licence crash risk, despite being mandatory in many systems.

This does not mean that it has no value. But traditional training methods focus primarily on creating drivers who are technically competent and able to pass the driving test. In order to create safe drivers, training should focus on self-assessment, and on teaching an understanding of the factors that contribute to risk. ■

What about other measures?

These measures would tackle some of the known contributory factors to young novice driver crashes, but will only work if they are enforced with punishments that act as a real disincentive to breaking the rules.

Novice drivers should be subject to a probationary period, during which they could lose their licence and/or have to undergo additional training if they do not comply with the rules of the road or licensing conditions. If drivers are penalised on a system of demerit points, the threshold for removing the license could be lower for novice drivers.

However, it is often difficult to target enforcement at young, novice drivers in particular. It is more effective to ensure rigorous general enforcement of the rules, while focusing on infractions where young people – especially young men – are particularly over-represented, such as alcohol, speed, drug-driving and non-use of seat belts. At times action could focus on locations where young people are particularly active, such as roads around entertainment areas.

New technologies, such as “black boxes” that record details of how a car is being operated, “alcolocks” that test the level of alcohol in the would-be driver’s blood before the car can be started, or speed controls on vehicles may help. But more research is required as to how these new technologies would be of most benefit to young and novice drivers.

It is also worth looking at the availability of public transport, the costs of operating a vehicle, the availability of alcohol and the location of services of interest to young people, as all these can also have an impact on risk. Governments can cut the cost of combating risk through international co-operation in sharing research and best practices to ensure that all countries attain the highest possible levels of road safety. The greatest future risk may be expected in non-OECD countries, and international co-operation is important to mitigate this.

Communications and education efforts are also important, in order to alter the fundamental attitudes that exacerbate risk. Such campaigns should target, in particular, inexperienced drivers, high-risk lifestyle groups, and males. Parents have an important role to play too, since many safety-related attitudes are established well before the driving age, and are highly susceptible to the influence of role models. ■

How do we go about achieving change?

The evidence of the seriousness of the young driver problem may be compelling, but this does not mean that measures to improve matters will necessarily be welcomed with open arms. It is not enough to have a well-researched strategy; governments also need to communicate it effectively. Stakeholders should be consulted, including young drivers, parents, employers, driving instructors, testing agencies, the police, the health and education sectors, the insurance industry, and road users in general.

Finally, countermeasures should be phased in, showing concrete results at each step. Careful consideration needs to be given to ensuring that they do not impact unequally on more disadvantaged sectors of society. They should also be monitored and adjusted where they are not showing results.

Some actions can be taken more quickly than others, or show more immediate results, and costs will vary. In particular, changes that require new legislation will take considerable time to implement.

The first step is to *increase public awareness of the problem*. This can be done immediately through publicity campaigns that encourage changes in attitudes and behaviour, and reinforce the need to act. The combination of other countermeasures, particularly enforcement, with communications can yield changes in attitudes towards safety risk over the longer term.

Governments can also *implement overall road safety improvements* that address young driver risk. This includes appropriate legislation and rigorous enforcement of road safety law, focusing on areas where young driver risk is especially high, such as speeding, alcohol, drugs and seatbelt use. This is an area where immediate action can be taken, based on existing laws and regulations.

One of the most effective measures would be to introduce *high levels of pre-licensing accompanied practice*.

Another highly effective option is to introduce *protective restrictions during initial solo driving*. This would include blood alcohol levels of no more than 0.2 g/l. Limited driving at night and/or with passengers should also be considered. Again, legislation is likely required, so implementation would not be immediate. Enforcement is key to the success of such measures.

These measures are likely to be unpopular with young drivers themselves, although an effective communications strategy may reveal substantial support among society in general.

Enforcement will only be effective if there are significant repercussions for breaking the rules of the road. *Effective disincentives to inappropriate driving behaviour* should involve imposing probationary periods on novice drivers where they could lose the right to drive or undergo obligatory retraining. Such countermeasures may require new legislation, but would not add important additional costs. Car insurance premiums could also be used to further encourage young drivers to avoid unsafe driving.

Authorities could also *improve driver training and testing*. The goal of these processes should be to create safer drivers, which involves instilling novices with a sense of their own limitations and understanding of the causes of risk.

It is important to look also at the road safety aspects of *public policy decisions that are not directly related to road safety* in areas such as availability and cost of public transport, the costs of operating a vehicle, the availability of parking at schools and other areas frequented by young people, the availability of alcohol to young people, and the locations of bars and discos.

Another longer-term issue is *technological solutions for monitoring and enforcement, and for assisting the novice driver with the driving task*, since it will involve research and development. While the potential is high, the actual gains to be achieved from new technologies are unknown and there will initially be new costs for implementing technology in vehicles, which could result in resistance from drivers and vehicle manufacturers.

One thing is clear – if governments are to reduce the impact of road safety on human health and societies, including the ECMT Ministers' objective of halving road deaths in the period 2000-2012, they need to address the issue of young driver risk, particularly that of young men. ■

For further information

For more information about the road safety work of the OECD and the European Conference of Ministers of Transport (ECMT), please contact John White, (33) 1 45 24 95 96, john.white@oecd.org, or Colin Stacey, (33) 1 45 24 95 98, colin.stacey@oecd.org.



For further reading

OECD/ECMT (2006), **Young Drivers: The Road to Safety**, ISBN 92-821-1334-5, € 75, 260 p.

OECD/ECMT (2006), **Speed Management**, ISBN 92-821-0377-3, € 75, 282 p.

Please see also www.oecd.org/transport; www.cemt.org; and www.cemt.org/JTRC/WorkingGroups/YoungDrivers/index.htm.

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