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Summary

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Impact van de aanwezigheid van passagiers op het rijgedrag. Enquête over de perceptie die bestuurders hebben van de houding en verwachtingen van hun passagiers aangaande verkeersveiligheid.

Impact de la présence de passagers sur la conduite. Enquête concernant la perception qu'ont les conducteurs des attitudes et attentes de leurs passagers en matière de Sécurité Routière.

It is an established fact that young people are overrepresented among the victims of road traffic accidents. This finding not only relates to young drivers, but also young passengers. In Belgium in particular, one sees that the average number of accidents involving passengers is greater when it comes to young drivers (aged between 18 and 24) than with those aged between 25 and 31 or those aged 32 and over (Casteels, Focant and Nuytens, 2012).

This finding has raised quite a few questions, notably regarding the possibility that the presence of passengers constitutes a risk factor for young drivers. A synopsis of studies published on this subject is presented as an introduction to this report. Two types of studies are included. The first is based on the risk assessment of accidents and is designed to determine if the risk varies depending on the presence of passengers and, where appropriate, if the influence of passengers is the same depending on the age and gender of the drivers and passengers. The second type of study provides more direct information in relation to the nature of the influence of passengers on drivers' behaviour. Contradictory results were observed in both cases, which sometimes suggested that passengers influenced young drivers in a positive way (read: reduced the risk of an accident or resulted in more confident driver behaviour) and sometimes in a negative way (read: increased the risk of an accident or resulted in more risky driver behaviour).

Some of the studies based on the *risk of an accident* concluded that the presence of passengers is associated with an increased risk for young drivers, especially if the passengers and the drivers are young and male. On the other hand, some studies revealed a reduced risk of an accident when passengers were present for all drivers, including young ones. Nevertheless the decrease is less pronounced among the latter.

However, certain characteristics of the compared studies allow us to better understand this contradiction:

- 1 The majority of the studies that concluded that the presence of passengers exerts a negative influence on young drivers involve very young drivers (from the age of 16). The young drivers involved in the studies that indicated a positive influence were older (minimum 18 years of age).
- 2 A large number of the studies that demonstrated that (young) passengers exerted a negative influence on the risk of young drivers being involved in an accident are based on risk assessments that were not adjusted to take other factors into account. Yet the time of the journey and whether the driver had consumed alcohol, etc. are factors that may be associated with the presence of passengers and an increased risk of an accident. As a result, the effect of the presence of passengers on the level of risk may be confused with a certain number of factors connected to the undertaken journey.
- 3 Finally, although all the studies that concluded that the presence of passengers had a negative influence on young drivers took into account the age and gender of the passengers, this was not the case for the majority of those that demonstrated a positive effect. 'The passenger effect' considered in these studies is therefore likely to combine positive effects (older passengers, women) and negative effects (young passengers, men), which could mainly result in a decrease in the protective effect observed among older passengers.

The studies related to passenger influence *on driver behaviour* also produced contradictory conclusions. Some indicated that passengers influenced young drivers in a positive way (though less marked or neutral), while others clearly reveal that young (male) passengers have a negative influence on the behaviour of young male drivers. These studies also reveal that very different explanations could be considered to account for the influence passengers have on the risk of an accident and on driver behaviour, and with regard to young drivers in particular.

We can distinguish direct and indirect factors to explain the passenger effect (Allen & Brown, 2008). The direct factors concern specific actions that passengers perform and which are likely to interfere with driver behaviour (conversations, loud music, physical interference with the control of the vehicle, incitement to take risks, etc.). The distractions that passengers can cause are therefore an essential component of this section.

Indirect types of influence originate outside the context of driving and fall under the more general field of social influence. In fact passengers are likely to affect driver behaviour due to the social context or frame of reference that they represent from the driver's perspective. One might assume that passengers of young drivers that belong to the 'peer group' represent different social norms (valuing or greater

acceptance of 'risky' behaviour) than those of adult passengers, and that these norms also differ between men and women.

The study's objective and methodology

The study presented in this report was accomplished using an online survey. In total, 1,902 drivers participated on a voluntary basis. They were asked to consider the last journey they had made during the weekend (1) alone and (2) with one or more passengers. The aim of this 'sampling' of journeys made during the weekend was to allow a comparison between the two types of journeys ('with' and 'without passengers') on a relatively consistent basis. *An important consequence of this choice of methodology is that the results are limited to journeys made during the weekend. The resulting conclusions cannot therefore be generalised to other periods of the week.*

The study's objective was to investigate:

Whether the journeys drivers made alone differed from those made with passengers (time, origin of the journey, alcohol consumption and driver fatigue) and whether these differences are likely to account for the variations in the risk associated with the presence of passengers among drivers of different age categories.

The role played by the passengers' social influence. We measured the drivers' perception of: (1) their passengers' general attitude to road safety (speed, driving under the influence of alcohol, driver fatigue and distraction) and (2) their passengers' expectations with respect to their behaviour particularly as a driver. The objective was to establish whether the social as well as the operationalised influence differs depending on the drivers and passengers' characteristics (age and gender being the most significant).

Driver perceptions in relation to their passengers' behaviour and influence were also gauged.

Main results

Characteristics of the journeys made with and without one or more passengers

Overall, the results indicate that the journeys made with passengers were driven under conditions that involved a higher level of risk than those made alone: they were more often made at night (between 10 p.m. and 6 a.m.), the drivers reported more frequently having consumed at least one alcoholic drink and having felt more tired than during journeys made alone. Young drivers (aged between 18 and 24 as well as those aged between 25 and 31) reported more frequent journeys at night than drivers aged 32 and over – whether these were journeys they made alone or with passengers. However this difference is particularly pronounced for journeys made with one or more passengers.

Apart from this, we also observed that the youngest drivers (aged 18-24) were more likely to transport young passengers (aged 14-24), especially during journeys made at night.

As a result, the differences observed in relation to the characteristics of the journeys made during the weekend with and without any passengers could, at least partly, account for the variations in the risk of an accident previously reported in the literature (a higher proportion of night-time journeys related to those made with one or more passengers, and specifically those involving young drivers accompanied by young passengers). It therefore seems important to take them into consideration in the context of future studies devoted to the issue.

Attitudes and expectations assigned to passengers

According to the drivers, the attitudes of the transported passengers were primarily negative towards risky behaviour caused by driver fatigue and driving under the influence of alcohol. This also applies – though to a lesser extent – to speed or distractions. The drivers also felt that their passengers expected them to display safe driving behaviour.

Drivers' responses did vary, but the variations mainly related to the severity with which passengers are considered to condemn these various behaviours (and not a way of condemning acceptance of these behaviours). Therefore as a whole these results suggest that the influence of passengers must essentially benefit road safety, but that the 'strength' of this benefit varies depending on driver characteristics (age

and gender), passenger characteristics (mainly their gender), as well as those related to the journeys made (time, alcohol consumption and driver fatigue).

Firstly, we found that the youngest drivers (aged between 18 and 24 and between 25 and 31) assigned more relaxed attitudes and fewer positive expectations (expectations related to safe behaviour) to passengers than drivers aged 32 and over. Drivers did not apparently perceive any difference between the attitudes and expectations displayed by passengers of different age categories. The results do not then confirm the hypothesis that young drivers tend to assign different attitudes and expectations specifically to their peers.

We also established that the attitudes and expectations drivers assigned to their passengers differ according to their gender: *male drivers perceived attitudes that were more relaxed towards risky behaviour among their male passengers, especially with regard to driving under the influence of alcohol. Female drivers perceive less – if any – difference between their passengers' attitudes and expectations based on gender.*

The study also showed *that drivers actually assign more relaxed attitudes to risky behaviour as well as less pronounced expectations in favour of safe driving behaviour to passengers they transported at night (compared with those transported in the evening or during the day). Moreover, drivers who had consumed at least one alcoholic drink or experienced driver fatigue during the journey assigned more relaxed attitudes to their passengers with regard to driving under the influence of alcohol or driver fatigue, respectively.* Therefore these results suggest that it is when drivers are more likely to take risks – and therefore when positive passenger influence would be most useful – that this influence is perceived to be the least forthcoming. The study does not however allow us to establish whether drivers project their own attitudes when assessing those of their passengers, or whether they 'conveniently' adapt their perception of passengers' attitudes and expectations depending on their behaviour (alcohol consumption, etc.).

Driver assessment of passenger behaviour and influence

The results obtained related to passenger behaviour proved not to be particularly informative. The drivers' answers reflect a certain degree of inconsistency. This can certainly be partly explained by the length of the survey and the nature of the questions.

The majority of drivers were of the opinion that the presence of passengers had no effect on their driving. However, a considerable proportion (22%) also reported a positive influence. Very few drivers stated that their passengers had a negative influence on their driving.

Noteworthy information:

- Overall, the results indicate that journeys with passengers involved a higher level of risk than those made alone
- Drivers generally believe that their passengers displayed positive attitudes to road safety and expected them to display safe behaviour. However this was less true:
 - For drivers aged between 18 and 24 and between 25 and 31 compared with those aged 32 and over
 - For drivers that transported passengers at night rather than during the day or in the evening
 - For drivers that had consumed at least one alcoholic drink or who had suffered from driver fatigue during a journey with one or more passengers
 - For male drivers that assessed male passengers (specifically with regard to driving under the influence of alcohol).
- The majority of drivers (60%) believe that the presence of one or more passengers did not affect their driving.



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