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Expected effects of demerit point systems and other measures against recidivism in traffic

Federal Public Service
Mobility and Transport

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Summary

 In this report the expected effect on road safety of measures to prevent recidivism for traffic offences is analyzed and discussed. Besides an analysis of the effects of a demerit point licensing system, the report also discusses other possible measures, such as the intensification of police checks, the extension of driver improvement courses and psycho-medical exams, a wider application of alcohol interlock programs and the enlargement of the legal definition of recidivism in traffic in combination with more severe sanctions for repeat offenders. At the same time, the potential of several more innovative measures was evaluated: monitoring recidivists for speeding by means of black box technology, possible progressive sanctioning systems and increasing fines.

The present systematic analysis of the international literature showed that the introduction of a demerit point systems coincided with a temporary decline in the number of traffic accidents in most countries. The observed declines appeared of short duration - typically one year - and the decline appeared mostly due to the temporary increase of traffic enforcement and accompanying campaigns at the time of introducing the point system. Hence, the most parsimonious interpretation is that the observed temporary declines are not due to the point system itself, but rather to the temporary increase in enforcement (police checks and campaigns). Moreover, the literature also concludes that a necessary precondition for a demerit point system to be effective is a (very) high probability to get checked by the police. Unfortunately, the literature does not specify what the recommended minimum level of enforcement ought to be. A detailed analysis of the probability to get checked by the police for the major traffic infractions in Belgium shows that - except for speeding offences - the probability to get checked is too low, both in absolute numbers as compared to other countries. Based on the latest available Belgian data, it is estimated that on average 58.000 kilometers have to be driven under the influence of alcohol per registered DUI offence. For hand held telephone use, 27.500 kilometer has to be driven while using the phone per offence. For not wearing the seat belt 110.000 kilometers driven without a seatbelt correspond with one registered offence. With 2000 kilometer driven over the speed limit per registered speeding offence, the probability to get fined for speeding is higher. In practice, however, the average Belgian driver only gets fined for speeding once every two years despite the fact that each year the Belgian drivers drive 6.8 billion kilometers over the speed limit.

International evaluations of the cost-effectiveness of increasing the number of police checks for all types of violations are clearly positive. The most important recommendation of this report is therefore to structurally and sustainably increase the chance of being caught for the most important violations, starting with a twofold increase of the enforcement efforts in the short term. Although it is difficult to make a precise estimate on the basis of currently available data, this doubling in Belgium has the potential to reduce the number of alcohol-related fatalities by approximately 10 percent, to reduce fatal accidents caused by not wearing the belt by about 4 percent and to reduce accidents due to distraction in traffic by about 6 percent. For speed-related road fatalities, the estimate is more difficult to make since the effects of speed enforcement are largely limited to the controlled locations. According to a rough estimate, doubling both manually operated and automated speed checks could have the potential to prevent 5 to 10 percent of all road deaths. A condition for a sustainable effect of increasing the enforcement activities is that sufficient unannounced speed checks are performed. The effect on road user behaviour of the announcement of speed checks by place-of-interest functions in GPS systems and smart phone apps should be evaluated in further research together with further research on means to minimize the negative impact of connected warning systems on driving behaviour.

An important implication of the current too low enforcement level is that the effectiveness of all possible measures against recidivism is severely limited by the fact that the vast majority of offenses and recidivism cases are not registered by the police. An evaluation of the current arsenal of measures against recidivism is strongly limited by the lack of data about the size of the group of officially registered recidivists and their profile. Based on international best practice evaluations, it appears that the further enlargement of psycho-medical examinations, driver improvement courses and the alcohol interlock program will have positive effects on the occurrence of recidivism. Extending the legal definition of recidivism in traffic and the associated obligation to succeed in psycho-medical examinations and theoretical and practical driving exams should theoretically have a positive effect. Unfortunately, the currently available data do not allow to evaluate the impact of these measures in practice.

As far as the more innovative measures against recidivism are concerned, the current evaluation shows that with the current low enforcement level, little effect can be expected from progressive fines. International research also shows that - despite a small effect of limited increases in fines (price elasticity) - not much can be expected from the increase in fines in the group of repeat offenders. In the current context it can be expected that measures based on intensive monitoring of risk drivers by technology in the car - such as an alcohol interlock program or monitoring of speed behavior by black box technology - will have a clear effect on the occurrence of recidivism. The practical feasibility and reliability of a possible program for speed offenders based on systematic monitoring of their speed behavior is currently tested by Vias institute.

The probability of detection in Belgium is currently not only too low to deter risky behavior in traffic, but also means that the chance of detecting repeated offenders and recidivism is statistically very low. In view of the fact that all possible measures against recidivism are ultimately based on the identification and detection of repeated offenders (certainly of serious and dangerous violations), these can only work if the chance of getting caught is sufficiently high.

The main conclusion of this report is therefore that the first priority should be to at least double the risk of being caught for all dangerous traffic violations. The literature shows that this is a cost-effective measure to increase road safety. Belgian survey research shows that increased traffic enforcement is supported by a large majority of the population, which is a necessary condition for the sustainable application of any road safety measure. At the same time, the public support for a demerit point system is currently low.

The analysis of the Belgian situation shows that risky behavior in traffic is by no means limited to a small group of repeat offenders, but is widespread among the total population of drivers. This reflects a lax and tolerant social norm regarding risky behavior in traffic, which perpetuates the problem. On an annual total of 102 billion kilometers traveled in traffic in Belgium, approximately 6.8 billion kilometers are traveled each year over of the legal limit; 2.7 billion kilometers are driven under the influence of alcohol, 3.2 billion kilometers while calling and 8.5 billion kilometers without seatbelt. Due to the low probability of being effectively controlled by the police, the identification of multiple offenders is not only largely due to coincidence, but also endorses the overly tolerant social norm by the authorities.

The most effective way to break both this vicious circle and to adequately control and punish recidivists is to drastically and sustainably increase the chance of being caught. In order to maximize the subjective chance of being caught and to channel unwanted motivational side effects, this must be accompanied by a well-thought-out communication strategy. It may seem counter-intuitive, but we recommend to communicate very carefully in public communications about the very low probability of being caught for traffic offenses and about the actual size of the number of violations in Belgium. Otherwise, a negative effect on both the subjective chance of being caught and on the already too tolerant social norm can be expected. This can be done by working out a communication strategy starting from the observation that a large majority of road users usually stick to the rules and on the basis of statistics on the number of drivers who have been caught and convicted.

In addition, increasing the probability of detection in general quantitative terms (number of police checks per year per type of violation) obviously should not be at the expense of the qualitative organization of the controls in function of target groups, locations and times with a specifically increased risk. In addition to quantitative targets on the absolute number of police checks, a reference framework must be developed for linking qualitative targets to the quantitative objectives on the distribution of the control activities over at risk times, locations and target groups. In order to check whether convicted offenders and repeat offenders abide the imposed penalties, sufficient attention must also be paid to check driver' documents. As more drivers are convicted as repeat offenders, the need for a sufficiently high enforcement pressure on compliance with the criminal conditions also increases.