

Demerit points systems

Summary

International studies show that the introduction of a demerit points system has a limited long term road safety effect. In spite of this, many countries have introduced such a system: in 2007 19 of the 27 EU member states had a demerit points system. Its popularity is very probably the result of people seeing it as fair to tackle recidivists more strictly. The effect of a demerit points system can be increased by increasing the chance of being caught and by regular public information campaigns. In 2002, a demerit points system for novice drivers was introduced in the Netherlands. If a demerit points system were to be introduced in the Netherlands for all drivers and for serious offences only, there would be only a few less road fatalities a year at the most (given the current chance of being caught).

What is a demerit points system?

Traffic laws aim at promoting a safe and rapid traffic flow. However, the laws are very often violated. Offenders are punished in order to achieve these laws being complied with. The added value of a demerit points system is that it takes recidivism into account. In addition to the normal penalties, demerit points are meted out to the offender. These demerit points are personal, which means that, with regard to enforcement, they can only be imposed when halted by the police, and not be imposed on the vehicle owner via the vehicle registration number. In nearly all current demerit points systems offenders receive more demerit points for more serious offences. If a certain points limit is exceeded, a (temporary) licence suspension usually follows automatically. Another possibility is that the offender has to pass a driving test again. In nearly all countries that have a demerit points system, drivers can lower their number of points by good behaviour. Points have a legal limitation if offenders have driven offence-free for a certain (long) period. Practically all countries that have a demerit points system also have what are known as 'driver improvement courses' which also reduce the number of points. These courses are of a mainly formative character and are aimed more at improving attitude than at teaching road skills.

How does a demerit points system work?

Demerit points systems usually consist of three effective elements: deterrence, selection, and correction.

Deterrence

The deterrent effect lies in the chance of losing the driving licence if caught repeatedly. This is an extra reason to obey the traffic laws. There is a difference between the 'general' preventive effect and the 'special' preventive effect of a demerit points system. The general preventive effect should be found in a decrease in the number of intentional offences for all drivers: they drive more carefully, in order to avoid getting a demerit point. The special preventive effect should be shown by a decrease in the number of offences by drivers who already have a demerit point after an earlier offence: they drive more carefully to avoid getting another point. Road safety can only be said to have improved if the deterrent effect of the system really does reduce the number of deliberate offences, and if the reduction of the number of deliberate offences results in a reduction in the number of crashes.

Selection

If a system can remove from traffic those road users who often behave dangerously, before they have actually caused a crash, this is good for road safety. Such a system can only be an effective means of selection if reckless drivers are tracked down in time, and if demerit points are a good predictor of future crashes.

Correction

Systems in which drivers can have their points total reduced by following a course have an educational element that is intertwined with the deterrent effect. Educational elements only work if following a training aimed at changing behaviour reduces the chance of recurrence.

What is known about the effect of a demerit points system in general?

Although more and more countries implement a demerit points system - 19 of the 27 EU member states have demerit points system in 2007 - very little is known about their effects. The decrease in the number of crashes in the first year after the introduction is often taken as proof of the effectiveness of the demerit points system. An English publication of the Spanish Directorate General of Transport (DGT, 2007) gives decreases in the first year after the introduction of 1.4% in Ireland (2001), 3.2 in Italy (2003), 14% in Denmark (2005) and 7.6 in Spain, compared to the year previous to the introduction. The decrease generally is spectacular in the first months after the introduction, but soon after the number of offences increases.

After a demerit points system was introduced in France in 1992 under much protest (especially from commercial drivers), there was initially a rather spectacular decrease in the number of casualties. In the first year after introduction, the number of fatalities was 7% less than in the previous year (Chatenet, 1993). After this first year the fatalities gradually increased again to the level just prior to the introduction. This gives rise to the assumption that French motorists overestimated the chance of losing their driving licence, partly because of the wide publicity about the introduction. When it became clear that the chance of being caught was not so large, the number of offences and resulting crashes increased again. Italy and Ireland also saw an increase in the number of crashes, after an initial decrease. Only based on the crash data over a long series of years, can be determined whether the introduction of a demerit point system caused a trend break in the number of crashes (see the SWOV fact sheet [Time series analysis](#)). But even then the net effect of a demerit points system cannot properly be determined, because often the enforcement effort is increased at the same time as the introduction.

Although no scientifically sound research has yet been done of the overall effect of demerit points systems, there have been studies of the three separate effective elements (deterrence, selection, and correction). They are discussed in the paragraphs below.

How great is the deterrent effect of a demerit points system?

Those drivers who admit to committing offences more often also claim to be involved in crashes more often (Verschuur, 2003). The introduction of a demerit points system will have a positive road safety effect if the deterrent effect is large enough to put road users off committing planned, deliberate offences. In Canada, Redelmeier, Tibshirani & Evans (2003) found that drivers do adapt their driving style to such an extent that the crash rate clearly drops, for only slightly longer than a month after having received demerit points. After this period, there was no difference in crash rate left. The crash rate halved in the period of just over a month after being caught and during which period the points limit would have been exceeded with four similar offences. After this period the effect had disappeared. If it concerned serious offences with a lot of demerit points, i.e. two such offences would cause exceeding the limit, the crash rate decreased slightly, but not significantly, during this period. This appears to show that the small group of frequent offenders is not bothered by the consequences of a demerit points system, and carries on driving as usual.

Demerit points systems thus have a deterrent effect, but this is only temporary. In order to increase the total road safety effect of a demerit points system, it is important that the subjective change of being caught is very large.

How large is the selective function of a demerit points system?

Research (Twisk, 1993; Daimantopoulou, 1997) has shown that especially serious offences in which drivers get many demerit points are good predictors of future crashes. The relation is the strongest with young novice drivers. One fine already had so much predicting power that a second or third one hardly added any value. A demerit points system, and certainly one in which only a serious offence gets demerit points, has a limited selection value. By far the most offences are not detected. Exclusion as a consequence of a demerit points system often comes too late. The selective effect of a demerit points system on road safety is assumed to be negligible.

How large is the corrective effect of a demerit points system?

Driver improvement training attempts to change behaviour and attitude. A number of studies in Germany and England (e.g. Schützenhöfer & Krainz, 1999) have shown that as a result of courses especially aimed at drink-driving, the number of recidivists in the first three years after the course was

30-50% lower. In the Netherlands the Educational Measure Alcohol is an example of driver improvement training. It has not yet been shown that the Educational Measure Alcohol results in fewer recidivists.

Two meta-analyses (Master & Peck, 2003; Ker et al., 2005) show that courses related to the demerit points system do not result in a decrease in the number of crashes, and only in a very limited decrease in the number of offences. A positive exception are the courses aimed at the prevention of drink-driving.

What are the elements of the current demerit points system in the Netherlands?

Since 2002 there has been a rather simple demerit points system for novice drivers. Those who commit three serious offences (those who have been halted by the police) in the five years after obtaining their driving licence must take a driving test. If the driving skills are insufficient, the driving exam has to be taken again. Scientific research into the effects of the demerit points system for novice drivers has not yet been carried out. The government also wants to introduce a demerit points system for driving under the influence for all drivers. The system that has been proposed involves immediate suspension of the driving license when someone has been sentenced in court for drink-driving twice within five years. After the period of suspension, the driving examination must be taken to gain possession of the license again. Whether the demerit points system can also include urban speeding offences is still under consideration.

Is there public support for a demerit points system in the Netherlands?

There is wide support among the population for the introduction of a demerit points system. NEA Transport Research and Education carried out a survey in 2002. In this survey, about 75% of all Dutch were in favour (NEA, 2002). In the same year, the ministry's Transport Research Centre commissioned the NIPO market research agency to measure support. The report (Groeneveld, Frederikse & Mazor, 2002) showed that 85% of the Dutch population were in favour. This survey also asked about the expected effectiveness of a demerit points system, and this was much larger than previous research had led us to expect. As a consequence of the introduction of a general demerit points system, 33% of the Dutch expected a 'large' road safety improvement, and a further 23% expected a 'fairly large' improvement.

How does a demerit points system relate to the Mulder Law?

An important reason why a demerit points system has not been introduced, in spite of society's past and present strong demand, is the Mulder Law. This law makes it possible to settle offences administratively by using the registration number on the number plate, irrespective of whether the owner is also the offender. Approximately 80% of the offences observed are settled using this law. A demerit points system does not fit into this law: points should only be imposed on the person who actually committed the offence.

What are the road safety effects of the introduction of a demerit points system in the Netherlands?

Based on a number of studies (Redelmeier, Tibshirani & Evans, 2003; Palerma & Stevenson, 2003), it is possible to make a rough estimate of the effect that the introduction of a demerit points system in the Netherlands will have. This effect will be a reduction of a few road deaths per year, after the initial decrease has levelled out, at an equal chance of getting caught, and when a general demerit points system is introduced with the assumptions that:

- points are only imposed for more serious offences after being halted by the police;
- the Mulder Law for lighter offences does not change;
- two offences with demerit points, within a period of five years, are necessary for (temporary) suspension of the driving licence.

Intensifying enforcement and public information campaigns aimed at an increase of the subjective chance of being caught can increase and lengthen the initial effect. Making the demerit points system stricter can also increase the effect, although, according to the results of Redelmeier, Tibshirani & Evans (2003), a lot more can be expected from increasing the chance of being caught than increasing the penalties.

Which undesirable behaviour can a demerit points system encourage?

Side effect: driving without a driving licence

If a penalty (in this case not being able to drive anymore) hits a motorist hard, but the enforcement of the penalty is weak, he/she will be soon inclined to ignore the penalty. Research abroad (Bobevski, 2004) shows that 30-40% of the motorists continue to drive after a probationary licence suspension. Some think that those driving illegally are extra careful so as not to be conspicuous in traffic. Maybe they do drive slightly safer, but, according to Bobevski, not as safe as those drivers whose licence has not been suspended.

Side effect: hit-and-run crash

Another undesired side effect of a demerit points system is that the inclination to drive on after causing a crash will increase. The chance of being halted by the police after having committed an offence must be increased to prevent this and to ensure that the effect of a demerit points system is greater. This, of necessity, requires more visible police in traffic. They should, however, not only concentrate on the small group of serious offenders, but also on the large group of less serious offenders.

Conclusion and recommendation

The expectation that a demerit points system greatly improves road safety does not entirely agree with the facts. Perhaps there has been little research on the road safety effects of demerit points systems, but the indications are strong that their contribution is only modest. There will most probably be a large decrease in the number of traffic casualties in the first year after the introduction, but this is because of the overestimation of having one's driving licence suspended.

The effect of a demerit points system can be increased by increasing the chance of being caught and by public information campaigns. If a demerit points system for all drivers were introduced in the Netherlands for only the serious offences (i.e. those requiring being halted by the police and two such offences within five years leading to (temporary) loss of the driving licence), we estimate that it would - not taking into account any deterrent effect immediately after the introduction - only result in a few less fatalities annually.

Publications and sources

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