

# A Review of Research on Vehicle Sanctions in the U.S.A.

Levy, MM<sup>1</sup>; Frank, JF<sup>1</sup>

<sup>1</sup>National Highway Traffic Safety Administration, Washington, DC, USA

National Highway Traffic Safety Administration (NHTSA)  
400 Seventh Street SW, NTS-11  
Washington, DC 20590  
U.S.A.

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## Abstract:

Revoking or suspending a motorist's operators license is now a common penalty for many traffic infractions, especially those related to alcohol-impaired driving. Unfortunately, many of these offenders continue to drive. Suspended drivers frequently receive additional traffic citations or are involved in crashes during periods of license suspension. As a way of addressing this problem, 46 states within the U.S. have enacted laws designed to reduce the likelihood of illegal driving by sanctioning offenders' vehicles for impaired driving offenses or for driving with a suspended license. This paper describes research evaluating the effectiveness of various vehicle sanctions for reducing illegal driving. Findings from recent research in California and Ohio on the effects of vehicle impoundment and immobilization will be reviewed, and activities at the national level are described.

## Introduction

In 1998, 15,935 persons were killed in the U. S. in alcohol-related crashes (1). In an attempt to reduce injuries and fatalities, a variety of approaches have been developed and refined. Some of these focus on persuading drivers not to drive after drinking, such as driver education and training, e.g., *Responsible Driving* (2) and in safety messages targeted to the public, e.g., *You Drink and Drive, You Lose* campaign (3). However, for those arrested and subsequently convicted of alcohol-related offenses, a variety of "traditional" penalties have been applied, such as fines, jail, alcohol treatment and license suspension. Research suggests that among these countermeasures, license suspension is possibly the most effective for controlling subsequent illegal driving behavior. Despite use of this penalty, many suspended alcohol offenders continue to drive, receive traffic citations and are involved in traffic crashes during periods of license suspension (4,5). To counter this problem, many states have passed laws that directly affect an offender's vehicle or license plates, such as vehicle impoundment, vehicle immobilization and vehicle forfeiture. This paper (a) describes vehicle and vehicle plate sanctions that states have

used or are using currently, (b) reviews key research conducted over the past decade; and (c) provides information about ongoing activities at the national level.

## Materials and Methods

Forty-Six states have laws that can affect the vehicles or vehicle plates of offenders (see Table 1). Many of these states have enacted multiple sanctions for different offenses, e.g., Arizona and Ohio use registration and plate removal, ignition interlocks, and vehicle confiscation. Brief descriptions of the various vehicle sanctions follow.

**Suspension of Vehicle Registration:** In 21 states, vehicle registration is withdrawn upon conviction for a Driving While Intoxicated (DWI) or Driving While Suspended (DWS) offense, where the original licensing action can be related to a DWI offense. Some of these states have their own enforcement departments that can send out investigators to take the license plates from these offenders. However, in general, the vehicle license plate suspension provisions are poorly enforced.

**Special License Plates or Plate Markings:** Two states— Minnesota, and Ohio—issue special license plates to permit the use of the vehicle by family members of convicted DWI offenders. Two other states—Oregon and Washington—enacted laws which permitted officers to affix a zebra sticker over the annual year portion of the license plates of offenders. The Oregon and Washington laws were not permanent and are no longer in effect.

**Ignition Interlock:** Ignition interlock devices are designed to prevent a person who has consumed alcohol from starting a vehicle. The device measures breath alcohol concentration and is attached to the vehicle’s ignition system. Before vehicles can be started, drivers must blow a sample of their breath into the interlock device. If the driver’s breath is below a preset concentration (e.g., 0.025 % BAC), the driver will be able to start the car. However, if the driver has a BAC above the established threshold, the vehicle cannot be started. Thirty seven states have laws providing for use of ignition interlock devices primarily for multiple DWI offenders.

**Vehicle Impoundment:** Overnight impoundment of the vehicle of an individual arrested for impaired driving is a typical practice in most states. Ten states have laws which permit longer term impoundments for certain offenses, usually for repeat DWI offenses or for DWS, where the original offense was DWI-related.

**Vehicle Immobilization:** Courts can prevent DWI or DWS offenders from using their car by immobilizing the steering wheel (by using a “Club” device) or locking a wheel (with a boot). Currently, seven states permit use this sanction.

**Vehicle Confiscation:** Twenty-five states have laws permitting the forfeiture and sale of vehicles of primarily multiple DWI and DWS offenders, where the original licensing action was for a DWI offense.

**Table 1**  
**STATES THAT HAVE CURRENT VEHICLE OR PLATE SANCTIONS**

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<b>Registration &amp; Plate Removal</b>	<b>Ignition Interlock</b>	<b>Vehicle Impoundment</b>	<b>Vehicle Immobilization</b>	<b>Vehicle Confiscation</b>
<p><b>For DWI offense [15 states]</b></p> <p>AZ, IN, KS, ME, MN, NE, NH, NY, ND, OH, OR, RI, SD, VA, WY</p> <p><b>For DWS &amp; Revoked Offense Where Original Infraction is Related to DWI [9 states]</b></p> <p>AR, DE, MD, MI, MN, NJ, OH, OR, SD</p>	<p><b>[ 37 states]</b></p> <p>AK, AZ, AR, CA, CO, DE, FL, GA, HI, ID, IL, IN, IA, KS, LA, ME, MD, MI, MO, MT, NE, NV, NM, NY, NC, ND, OH, OK, OR, RI, TN, TX, UT, VA, WA, WV, WI</p>	<p><b>[ 11 states]</b></p> <p>CA, FL, IL, IA, MO, MT, NE, OH, OR, VT, WI</p>	<p><b>[7 states]</b></p> <p>FL, IA, NE, OH, OR, VT, WI</p>	<p><b>[26 states]</b></p> <p>AK, AZ, AR, CA, GA, IL, LA, ME, MI, MN, MS, MT, NY, NC, ND, OH, OK, OR, PA, RI, SC, TN, TX, VT, WA, WI</p>

## Results

A review of research conducted on the effects of various vehicle and license plate sanctions follows. The focus of the review is on research efforts completed within the past decade.

### Vehicle License Plate Tagging & Plate Impoundment

**Zebra Tag Program in Oregon and Washington States :** In Oregon, suspended license offenders whose vehicle plates were "zebra tagged" had fewer subsequent DWI and DWS violations than suspended offenders who did not receive the special tags (5). Also, among suspended license offenders, the possibility of receiving a zebra tag if rearrested appears to reduce subsequent violations and crashes. A similar law in Washington state did not affect subsequent violations or crashes for these types of offenders; however, it was not applied to nearly as many drivers and vehicles and it was not as strongly enforced by the police. Both states allowed the zebra tag laws to expire, so they are not currently in force.

**Minnesota License Plate Impoundment Study :** In Minnesota, violators incurring three DWI violations in five years, or four or more in ten years, can have their license plates impounded and destroyed. An evaluation of the effects of the law found a significant decrease in recidivism for violators who had their plates impounded versus violators who did not (6). Violators whose license plates were impounded by the arresting officer showed a 50 percent decrease in recidivism over a two-year period when compared with DWI offenders who did not experience impoundment.

**Ignition Interlock Research Studies:** Since the 1997 ICADTS review of ignition interlock research (7), these devices have become more widely used in the United States. Recent estimates from device manufacturers suggest that approximately 30,000-40,000 devices are currently in use. In 1999, a review of the current research (8) concluded that "...the weight of the evidence...suggests that the ignition interlock holds great promise to assist in efforts to reduce DWI among the [repeat offender] group." This conclusion is supported by the only random-assignment study conducted to date (9). This multi-year study provided data on recidivism rates among repeat offenders in Maryland. It reported that offenders assigned to interlocks had a significant reduction in recidivism (65% decline) compared to offenders not assigned interlocks during the one year period the interlocks were on the vehicles. The study findings also suggest that the benefits obtained in recidivism depend on continued use of interlocks on offenders' vehicles. In the Maryland study, after the interlocks were removed from offenders' vehicles the reductions disappeared. These findings are consistent with those reported in Alberta, Canada (10) as well as in North Carolina (11) and Ohio (12).

**Vehicle Impoundment, Vehicle Immobilization and Vehicle Forfeiture Programs:** In a study from the early 1990s designed to assess, in part, the application and use of impoundment and vehicle forfeiture laws with DWI offenders, it was reported that contacts with state officials and samples of court data indicated the use of vehicle impoundment and forfeiture are rare (13). Reasons for these laws not being used included: such laws are generally reserved for third and fourth time offenders; administrative difficulties in applying these laws; and a reluctance on the part of judges to impact other family members.

Other research has focused on the effects of vehicle impoundment and vehicle immobilization on crashes and violations. In September, 1993, the State of Ohio implemented two laws designed to reduce impaired driving. One of these-- The Ohio Vehicle Sanctions law-- was intended to reduce this problem after an arrest for DUI was made either by immobilizing the vehicle with a Club device or impounding it for the full sanctioning period, up to 90 days for second DUI offenders and 180 days for third DUI offenders.

Two large urban counties in Ohio (Franklin and Hamilton Counties) provided court and law enforcement records for eligible offenders (14). Because not all of the offenders eligible for a vehicle sanction actually received one, it was possible to compare those offenders who lost use of their vehicles with those offenders who did not. First, the study examined repeat violations and

offenses during the sanctioning period, and also for a two year period after the sanctioning period ended.

In Franklin County, the driving records of more than 2,700 offenders eligible to receive a combination of vehicle impoundment and immobilization between September, 1993 and August 1995 were analyzed. Offenders whose vehicles were sanctioned had 58 percent fewer DUIs as compared to comparable offenders who did not have their vehicles sanctioned. During the two year period *after* the sanction, these offenders still had a 35 percent lower rate of repeat DUI offenses. This carryover finding was unexpected, and may be due to the lack of access to a vehicle or refusal by others to loan these offenders their cars. Similar findings were noted in Hamilton County, where only vehicle impoundment was used and the driving records of nearly 3,600 drivers were analyzed. DUI offenses were 60 percent lower among the offenders whose vehicles were impounded during the sanctioning period and 56 percent lower after the sanctioning period as contrasted with offenders whose vehicles were not impounded.

In addition, NHTSA sponsored a study by the California Department of Motor Vehicles to evaluate how vehicle impoundment affects the behavior of drivers who are unlicensed or whose licenses are suspended or revoked (15). Under the program, law enforcement officers could impound vehicles on the spot of drivers who do not have a valid license. The impoundment period lasts for 30 days. According to law enforcement agencies throughout the state, more than 100,000 vehicles were impounded in 1995.

In this study, more than 6,300 unlicensed, suspended, or revoked drivers whose vehicles were impounded were compared to about the same number of drivers in 1994 whose vehicles would have been eligible for impoundment in the new program in 1995. For one year, the driving records were compared for convictions of driving while suspended (DWS) or driving while unlicensed (DWU), and crashes for both first time and repeat offenders.

The findings indicated that first offenders whose vehicles were impounded had an average rate of subsequent DWS or DWU conviction that was 24 percent lower than those whose vehicles had not been impounded. Repeat offenders had 34 percent fewer DWS or DWU convictions than their control group. Also, both first time and repeat offenders whose vehicles were impounded had fewer crashes. There was a 25 percent reduction in subsequent crashes for first time offenders and a 38 percent reduction in subsequent crashes for repeat offenders.

## **Discussion**

In general, it appears that vehicle and plate sanctions are promising countermeasures for reducing DWI and DWS recidivism. There is also some evidence that vehicle impoundment may reduce the occurrence of crashes. In 1998, as part of the TEA-21 Restoration Act, a new Federal program (section 164 program) was established to encourage states to address the problem of repeat intoxicated drivers. Section 164 requires states to pass laws "...that [require] all motor vehicles of repeat intoxicated drivers be impounded or immobilized for some period of time during the driver's license suspension period, or that an ignition interlock system be installed on all motor vehicles of such drivers for some period of time after the end of the suspension period."

States have until 2001 to meet this requirement or face the possibility a portion of their Federal-aid highway construction funds will be redirected.

Additional research is needed to identify approaches for increasing usage rates which are generally low, especially for vehicle forfeiture and ignition interlock programs. Also, the optimal sanctioning period as well as the effects of these sanctions when used in combination with other traditional or alternative sanctions should be assessed. Regarding additional ignition interlock evaluations, NHTSA is currently examining the effect of a two-year interlock period, rather than the more common one-year sanction, on recidivism in another random assignment study.

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