Ignition Interlocks – What You Need to Know

A Toolkit for Policymakers, Highway Safety Professionals, And Advocates

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Karen Sprattler	

9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Sprattler Group 1043 Grand Avenue #323 Saint Paul, Minnesota 55105-3002 Phone (651) 225-8045 Fax (651) 224-1712	11. Contract or Grant No. DTRTAC-08-P-00065

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16. Abstract

The purpose of this alcohol ignition interlock toolkit is to provide information about alcohol ignition interlocks and their use to prevent impaired driving. Many States have legislation that requires an alcohol ignition interlock to be placed on the vehicles of Driving While Intoxicated (DWI) offenders. The toolkit includes sections that address frequently asked questions about interlocks, cost and benefits of ignition interlock programs, research on ignition interlocks, point- counterpoint on ignition interlocks, talking points, and the current use of ignition interlocks by State. The toolkit also addresses issues to consider when putting together an ignition interlock program such as indigent funding, monitoring, and offender compliance.

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Introduction

Alcohol-impaired driving takes an enormous toll in the United States, killing approximately one person every 40 minutes. Despite continued efforts by enforcement, the judiciary, advocates and governmental agencies, nearly 13,000 people were killed in alcohol-impaired-driving crashes in 2007 (NHTSA 2008a). This number has remained remarkably stable for almost two decades after alcohol-involved fatalities declined significantly in the 1980s and early-to-mid 1990s.

Many drivers involved in fatal alcohol-impaired-driving crashes have been arrested previously for driving while intoxicated (DWI). In 2007, drivers with a blood alcohol concentration (BAC) of .08 grams per deciliter or higher in fatal crashes were eight times more likely to have a prior conviction for driving while impaired than were drivers with no alcohol (NHTSA, 2008a).

The prevention of impaired driving is critical to reducing alcohol-impaired-driving deaths and injuries. More than 1.46 million drivers were arrested in the United States in 2006 for driving under the influence of alcohol or narcotics. This number represents an arrest rate of one DWI arrest for every 139 licensed drivers in the United States (NHTSA, 2008b).

Technology presents exciting possibilities in the area of impaired-driving prevention. One promising strategy is the breath alcohol ignition interlock device (BAIID). A BAIID, or more simply an ignition interlock, is an after-market technology device installed in a motor vehicle to prevent a driver from operating the vehicle if the driver has been drinking. Before starting the vehicle, a driver must breathe into the device and if the driver's BAC is over a pre-set limit, the ignition interlock will not allow the vehicle to start.

Research shows that ignition interlocks reduce recidivism among both first-time and repeat DWI offenders, with reductions in subsequent DWI arrests ranging from 50 to 90 percent while the interlock is installed on the vehicle (Voas & Marques, 2003; Willis et al., 2005; Vezina, 2002; Tippetts & Voas, 1997; Coben & Larkin, 1999).

Forty-seven States and the District of Columbia currently allow the use of alcohol ignition interlocks for at least some DWI offenders; only Alabama, South Dakota, and Vermont do not. Some States mandate ignition interlock use; in others, judges, State administrators or even the offenders themselves choose whether or not to apply this promising sanction. Seven States mandate the use of ignition interlocks for all offenders; 22 mandate use for repeat offenders. However, although approximately 1.4 million DWI arrests are made each year, the most recent national estimate reports only 146,000 alcohol ignition interlocks are currently in use with impaired driving offenders (Roth, 2008a).

Additional information about alcohol ignition interlock technology is needed by State and community decision and policy makers to establish usage levels that correspond with the potential of this technology to save lives. This Tool Kit brings together resources that explain and support the use of alcohol ignition interlocks, identifies issues faced by ignition interlock programs and includes information about the current use of the technology in each State and the District of Columbia.

By preventing impaired drivers from starting and operating motor vehicles, the separation of an unsafe driver from a vehicle that has the potential to be a deadly weapon may prevent untold tragedy. This Tool Kit will advance the understanding of ignition interlock technology, improving its application as an effective strategy to save lives and prevent impaired driving.

Frequently Asked Questions

Q: What is an ignition interlock?

A: An ignition interlock is a breath alcohol analyzer connected to the ignition of a car. A vehicle equipped with an ignition interlock cannot be driven unless the driver passes the unit's breath alcohol tests (National Interlock Service Web site, 2009).

Q: How do offenders get an ignition interlock?

A: Some State ignition interlock programs are administrative, managed by Departments of Motor Vehicles. Others are judicial, managed by courts and probation departments. Generally, ignition interlocks can be provided or required in one of four ways (NHTSA, 2007):

1. Required by individual judges as a condition of probation for some offenders;
2. As a voluntary option for some offenders in return for shorter license suspension;
3. Required by State law for some or all repeat offenders as a condition of license reinstatement; or
4. Required by State law for all offenders as a condition of license reinstatement.

Q: How effective is an ignition interlock?

A: Research shows that ignition interlocks are associated with substantial reductions in recidivism, ranging from 50 percent to 90 percent while the interlock is installed on the vehicle. These results come from several peer-reviewed studies and a meta-analysis examining the effectiveness of interlocks (Voas & Marques, 2003; Willis et al., 2005; Vezina, 2002; Tippetts & Voas, 1997; Coben & Larkin, 1999).

Q: Are ignition interlocks effective with first-time and repeat DWI offenders?

A: Yes. Research studies demonstrate that ignition interlocks are effective for both first-time and repeat DWI offenders. A research study in New Mexico (Voas et al., 2005) indicates that for first-time offenders with ignition interlocks, the rate of recidivism was 3.51 percent, while first-time offenders without ignition interlocks had a significantly higher re-arrest rate of 7.09 percent. Several research studies have been conducted with repeat DWI offenders and ignition interlocks. In one study of repeat DWI offenders in West Virginia (Tippetts & Voas, 1997), those with ignition interlocks had a recidivism rate of 1.6 percent while 6.4 percent of repeat offenders without ignition interlocks were re-arrested for DWI. Similar results were found in Maryland (Beck et al., 1999), when 2.4 percent of ignition interlocked repeat DWI offenders were re-arrested for alcohol-related traffic offenses, as compared to 6.7 percent of the repeat offenders who did not participate in the ignition interlock program.

Q: How reliable are ignition interlocks?

A: The NHTSA model specifications, which were adopted in 1992, provide that an ignition interlock must prevent a car from starting 90 percent of the time if the BAC is .01 g/dL greater than the preset limit (.02 g/dL in extreme weather conditions) (Mothers Against Drunk Driving [MADD], 2009).

Q: What happens if an offender takes medicine with an alcohol base or uses an alcohol-based mouthwash?

A: Alcohol is alcohol. If the BAC exceeds the pre-set level, the vehicle will not start. In the case of mouthwash, if the driver waits a few minutes for the mouth alcohol to dissipate, the driver should be able to start the vehicle (National Interlock Service Web site, 2009).

Q: What happens when an offender tries to start a vehicle after drinking alcohol?

A: The ignition interlock will enter a short lock-out period of a few minutes for the first failed BAC test and a longer lockout for any subsequent failed BAC test. This permits an opportunity for the alcohol to dissipate from the mouth and for the driver to consider the reason for the failed test (NIS, 2009).

Q: Are there ways an offender can bypass using an ignition interlock?

A: Currently available ignition interlocks have anti-circumvention features that prevent activities such as having others blow into the ignition interlock, or using a balloon or compressed air to blow into the ignition interlock. By using pressure and temperature sensors, recording all events related to vehicle use, and using running retests, many of the ways offenders have tried to circumvent ignition interlocks in the past have since been thwarted (MADD, 2009).

However, many offenders seek to circumvent ignition interlocks by claiming they do not need an ignition interlock because they do not intend to drive, they do not own vehicles, or they cannot provide sufficient breath samples. Some offenders fail to install ordered ignition interlocks or simply drive vehicles without ignition interlocks (Robertson et al., 2006).

Q: What is a "running retest"?

A: Many ignition interlocks require random, repeated breath tests once the vehicles have been started successfully. This reduces the likelihood that an "alcohol-free" bystander provided the breath test that allowed the vehicle to start, and it detects drivers with BACs that are ascending after the vehicles are in motion. If a driver fails to provide a running retest or register a BAC in excess of the pre-set limit, either an auditory or visual warning or activation of an alarm will occur, alerting authorities. Manufacturers strongly recommend drivers not perform the running retest while the vehicle is in motion, but rather exit traffic and comply with the test (Robertson et al., 2006).

Q: What happens when the ignition interlock is removed from the vehicle?

A: Studies (Beirness, 2001; Beirness et al., 1998; Jones, 1993; Popkin et al., 1993; Coben & Larkin, 1999; Marques et al., 2001; DeYoung, 2002; Raub et al., 2003) have shown that ignition interlocks reduce recidivism from 50 to 90 percent while installed on vehicles. After the ignition interlock is removed, rates of recidivism may return to pre- ignition interlock recidivism levels. However, it may be possible to greatly enhance ignition interlock effectiveness by lengthening the time use is required, more closely integrating ignition interlock use with alcohol misuse treatment, or requiring permanent ignition interlock use for the most serious offenders (MADD , 2009; NHTSA, 2007).

Q: How much do ignition interlocks cost?

A: Installation of an ignition interlock runs between $100 and $250; typical monthly costs (including installation insurance and basic fees) are estimated to run between $65 and $90. Daily costs are approximately equal to the cost of one to two alcoholic drinks per day, or $2 to $3 per day, and far less than the costs of incarceration or electronic monitoring (Marques, 2008a). Some jurisdictions offset some costs for indigent offenders.

Ignition Interlock Costs

Planning, sufficient resources and coordination are required to implement effective ignition interlock programs. States have varying approaches to funding ignition interlock programs, generally using fees and surcharges paid by DWI offenders. Research estimates of interlock benefit/cost suggest a $3 benefit for first-time DWI offenders and a $4 to $7 benefit for other DWI offenders accruing for each dollar of program cost (Miller, 2005) (Roth et al., 2007).

Costs to the Offender

Installation of an ignition interlock runs between $100 and $250; typical monthly costs (including installation insurance and basic fees) are estimated to run between $65 and $90 (Marques, 2008a). Cost variations can be attributed to factors such as program size (economies can often be achieved with larger scale programs), geographic areas to be covered or even competition between vendors. Daily costs of an interlock sanction are approximately equal to the cost of one to two alcoholic drinks per day, or $2 to $3 each day, far less than the costs of incarceration or electronic monitoring (Marques, 2008a).

Many States have taken steps to address concerns that the cost of interlock sanctions acts as a barrier to offender implementation. About 20 States have devised ways to offset costs for indigent offenders. Interlock indigent funds operate in many States. Some set up with fees from other offenders; other States provide funds through arrangements with interlock providers.

Costs to the State

Program administration costs vary with the design of each ignition interlock program. States with mandatory versus discretionary ignition interlock sanctions, or first-time versus repeat-offender interlock programs will differ in level of resources needed. States choosing to monitor interlock data on individual offender BAC tests and driving habits will incur greater costs than States that do not. Programs that mandate offender appearance before a court or administrative body for elevated BAC tests will incur greater costs than programs that let the immediate inability to drive serve as the offender's sanction for an elevated test.

As courts and administrative agencies struggle to provide services in a challenging economy, there is no simple solution as workloads increase and budgets tighten. From simple to complex, ignition interlock programs must balance the costs of program elements with how they can be funded. A few States impose additional monitoring fees on offenders to offset increased administrative costs, while some experts suggest using revenues from alcohol taxes or insurance surcharges to fund interlock programs.

Benefits of Ignition Interlock Programs

No highway safety improvement strategy is ever a silver bullet, but significant progress can be achieved through the application of effective countermeasures. Ignition interlock technology prevents alcohol-impaired driving by DWI offenders, resulting in increased public safety for all motorists, including the offender. Other benefits of ignition interlock programs include:

A Reduction in DWI Recidivism

Ignition interlock technology offers great promise in reducing subsequent drinking and driving behavior by DWI offenders. Research shows that ignition interlocks, while installed on an offender's vehicle, reduce recidivism among both first-time and repeat DWI offenders. More than 10 evaluations of ignition interlock programs have reported reductions in recidivism ranging from 50 to 90 percent, with an average reduction of 64 percent while the interlock is installed on the vehicle (Voas & Marques, 2003; Willis et al., 2005; Vezina, 2002; Tippetts & Voas, 1997; Coben & Larkin, 1999).

Legal Driving Status

When a DWI offender installs an ignition interlock, the offender regains legal driving status, either through provisional or full licensure. Legal driving status enables offenders to maintain employment, complete substance abuse treatment and take care of familial and court-ordered responsibilities that require driving. This is particularly important in rural areas where offenders may not have access to public transportation alternatives.

Offenders and Their Families Approve

Surveys of New Mexico DWI offenders found that 85 percent of those surveyed thought an ignition interlock sanction was fair to DWI offenders; 87 percent felt ignition interlocks reduced driving after drinking (Roth 2005,). A study conducted in the United Kingdom reported families of offenders with ignition interlocks were particularly in favor of this technology. Family members found ignition interlocks provided a level of reassurance that the offender was not driving while impaired and reported a generally positive experience and impact on their loved one's drinking habits (Beirness et al., 2007).

A Predictor of Future DWI Behavior

The record of breath tests logged into an ignition interlock has been found to be an excellent predictor of future DWI recidivism risk. Offenders with higher rates of failed BAC tests have higher rates of post-ignition interlock recidivism (Marques, 2008a). In addition, the 20 to 30 percent of DWI offenders with the highest rates of elevated ignition interlock BAC tests also exhibit significantly higher levels of several different alcohol biomarkers, most of which are associated with problem drinking levels (Marques, 2008c). Experts suggest this BAC test data could provide critical information in the driver license restoration decision (Marques, 2008c).

Ignition Interlocks and Substance Abuse Treatment

Ignition interlocks effectively restrict an offender's driving privileges while giving the offender an opportunity to learn how alcohol consumption affects behavior (Beirness, 2001). Substance abuse treatment, a common requirement for DWI offenders, can be an extended process with setbacks and relapses. An ignition interlock provides a safety net to greatly reduce the possibility that such setbacks result in impaired driving (Beirness et al., 1998). Experts believe a greater tie between ignition interlock sanctions and substance abuse treatment should be encouraged, as the integration of the two strategies mutually reinforce the likelihood of a reduction in an offender's impaired driving.

Cost-Effectiveness of Ignition Interlocks

Offenders ordered to install an ignition interlock find the daily costs to be comparable to the price of one to two alcoholic drinks, or $2 to $3 per day. Initial installation of the technology runs between $100 and $250 and monthly costs are between $65 and $90 (Marques, 2008a). Ignition interlock costs are far less than the costs of incarceration or electronic monitoring. Research shows that the public saves $3 to $7 for every $1 spent on ignition interlock devices for DWI offenders (Miller, 2005).

Research on Ignition Interlock Devices

Numerous research efforts exploring the effectiveness of ignition interlocks as a sanction for DWI offenders have been conducted over the past 20 years. The research has been reasonably consistent in reporting 50- to 90-percent reductions in subsequent DWI recidivism when offenders have installed ignition interlocks on their vehicles (Voas & Marques, 2003; Willis et al., 2005; Vezina, 2002; Tippetts & Voas, 1997; Coben & Larkin, 1999).

Strengths of this research include highly comparable findings between studies, efforts examining a range of offender statuses and populations, sufficient sample sizes, international research, evaluations of both court-based and administrative programs and meta-analyses comparing results across research studies (TIRF, 2009).

Limitations of this research, noted across many of these studies, include a lack of randomly selected comparison groups as well as selection biases attributable to judicial discretion and the self-selective circumstances of most interlocked offenders. While the research on ignition interlocks is promising, these limitations must be taken into account when making program or policy decisions based upon this data (TIRF, 2009).

Ignition Interlock Effects on DWI Recidivism

- Research shows that alcohol interlocks reduce recidivism among both first-time and repeat offenders, including "hardcore" offenders—those offenders who repeatedly drive after drinking with high Blood Alcohol Concentrations (BACs) and are resistant to changing this behavior (Beirness et al. 1998., Coben & Larkin 1999, EMT Group 1990; Popkin et al., 1992; Morse & Elliot, 1992; Jones, 1993; Weinrath, 1997).
- More than 10 evaluations of interlock applications have demonstrated reductions in recidivism ranging from 50 to 90 percent while the interlock is installed on the vehicle (Voas & Marques, 2003; Willis et al., 2005; Vezina, 2002; Tippetts & Voas, 1997; Coben & Larkin, 1999).
- Once ignition interlocks are removed from vehicles, recidivism rates of ignition interlock users are similar to the rates for offenders who did not install ignition interlocks (Beirness, 2001; Beirness et al., 1998; Jones 1993; Popkin et al., 1993; Coben & Larkin, 1999; Marques et al., 2001; DeYoung, 2002; Raub et al., 2003).

Ignition Interlocks and First-Time DWI Offenders

Four studies (EMT Group 1990; Morse & Elliot 1992; Tippets & Voas, 1998; Voas et al., 1999) with unique offender populations, different measures of recidivism, and varying evaluation periods concluded that ignition interlock devices are effective in reducing recidivism in first-time DWI offenders. Findings include:

- A 2004 study of New Mexico's interlock program (Voas et al., 2005) compared a group of 862 offenders court-ordered to install interlocks with a group of 11,973 non-interlocked offenders. The study found interlocked offenders had a recidivism rate of 3.51 percent per year, compared to the non-interlocked group's rate of 7.09 percent, a 50-percent reduction in recidivism while the interlock was installed on the vehicle.
- An Alberta, Canada (Voas et al., 1999), study compared interlocked first offenders to control groups of reinstated and non-interlocked drivers. Measured against reinstated drivers, recidivism by interlocked first offenders was reduced by 89 percent; when compared to non-interlocked drivers, recidivism was reduced by 95 percent while the interlock was installed on the vehicle.

Ignition Interlocks and Repeat Offenders

Five studies involving repeat DWI offenders (EMT Group, 1990; Popkin et al., 1992; Morse & Elliot, 1992; Jones, 1993; Weinrath, 1997) have found that ignition interlocks are one of the most promising strategies available to prevent subsequent DWI behavior by these offenders. Research findings include:

- A study in Maryland (Beck et al., 1999) examined 1,387 repeat offenders who were eligible for license reinstatement. Half of the offenders were randomly assigned to receive an ignition interlock, the other half received no intervention. Participation in the interlock program reduced the risk of recidivism by almost 65 percent in the first year of the program, with an interlocked offender recidivism rate of 2.4 percent, compared to a non-interlocked offender rate of 6.7 percent while the interlock was installed on the vehicle.
- An Illinois study (Raub et al., 2003) looked at two similarly sized groups of repeat offenders who received restricted driving permits. One group was required to install ignition interlock devices, the second was not. After one year, interlocked offenders had a recidivism rate of 1.3 percent, compared to the non-interlocked recidivism rate of 8.7 percent—a reduction of 85 percent. Study authors also noted once interlocks were removed from the vehicles of the repeat offenders, there was a rapid return to pre-device recidivism rates.
- Numerous studies (Beirness, 2001; Beirness et al., 1998; Jones 1993; Popkin et al., 1993; Coben & Larkin, 1999; Marques et al., 2001; DeYoung, 2002; Raub et al., 2003) demonstrate ignition interlocks have a beneficial impact on recidivism *for as long as the device is installed in the vehicle*. Because of increased recidivism rates following removal of the device, several studies have reported that employing interlocks may be necessary as a long-term or permanent condition of driving for repeat offenders.

Ignition Interlock Effects on Crashes

The real threat associated with DWI behavior is the increased risk of alcohol-related crashes. Nearly all ignition interlock studies to date have examined DWI recidivism as a proxy measure for an interlock safety benefit. Once a larger number of these devices are in use, the data necessary to conclusively study the impact of ignition interlock devices on reducing alcohol-related crashes can be measured. At present, only one preliminary study in New Mexico has been able to examine this effect directly (Roth, 2008b).

- Preliminary results in New Mexico show an approximate 32-percent reduction in alcohol injury crashes for the years 2002–2006, a time period when interlock installation rates approached 35 percent of all arrested offenders. While a direct causal tie cannot be established, the evidence is persuasive.

Ignition Interlocks—Other Findings

Each attempt—successful or not—to use an interlocked vehicle generates data that is collected and stored by the ignition interlock device. This data is reviewed and used in some jurisdictions to monitor the interlock experience of DWI offenders. Through study of this data, researchers have made the following observations:

- Once the device is installed, offenders often try to circumvent the interlock in the first few weeks by tampering with breath samples and attempting to disengage the device. Tampering rates decrease over time as offenders recognize the futility of trying to circumvent the technology (Beirness et al., 2007).

- A high rate of breath test warnings/failures, particularly in the early morning, is a good predictor of DWI recidivism (Marques et al., 2003; Beirness & Marques, 2004).
- Several variables, but primarily more prior DWIs and more interlock warnings/failures in the first five months of interlock usage predict more than 60 percent of recidivism, with a false positive rate of less than 10 percent (Marques et al., 2001).
- The 20–30 percent of DWI offenders with the highest rates of interlock warning/failure also exhibit significantly higher levels of several different alcohol biomarkers from blood, hair or urine, most of which are associated with problem drinking levels. (Marques, 2008b).

Future Ignition Interlock Research

While numerous evaluations of ignition interlock effectiveness have been completed, work in additional interlock-related areas is necessary to optimize the use of this technology and appropriate use of the sanction. Experts have identified the following areas as important for continuing research:

- Determining the optimal structure for interlock programs (Beirness et al., 2003)
- The role of monitoring in interlock programs (TIRF, 2009)
- The interaction between interlocks and alcohol treatment (Beirness et al., 2003)
- Process evaluations of interlock programs (Coben & Larkin, 1999; Beirness et al., 2003)
- Outcome evaluations of interlock programs (Coben & Larkin, 1999)
- Examining the impact of ignition interlocks on the use of other sanctions for DWI offenders (i.e., are ignition interlocks becoming used more often in lieu of other sanctions?)

Other Considerations for Ignition Interlock Programs

Alcohol-impaired driving is a complex behavior that defies easy solutions. Each State defines these crimes and their sanctions differently, and responds with varying administrative and judicial sanctions. While ignition interlock technology offers great promise for reducing DWI behavior, creating an effective program within existing State systems can present challenges. As States consider instituting or upgrading ignition interlock policies or programs, a number of issues merit consideration by policy makers.

Program Considerations

Program Focus

What is a State's philosophical basis for an ignition interlock sanction? Is it public safety whereby an interlock is a protective shield to reduce the public's exposure to impaired drivers? Or is it a means of rehabilitation where interlocks detect and prevent driving by individual DWI offenders who continue to drink alcohol—or is it something in between? Answering these questions will inform interlock policies that speak to criteria for program participation, interlock noncompliance, length of interlock installation and more.

Indigent Funding

Many offenders ordered to install ignition interlocks claim they are unable to do so because of reduced financial capacity. A number of States have responded to this situation by creating a fund that will pay all or a portion of the costs of installing and maintaining the interlocks. In some States indigent funds are set up with fees paid by offenders; in other States a percentage of sales from providers support this fund. If States choose to make funds available to indigents, it is suggested that objective criteria for eligibility be developed to insure fair access to these resources.

Interlock Vendors

From a State perspective, how are vendors of interlock technology best managed? Several variations of management models exist, with strengths and challenges to each. Free market considerations favor multiple providers; management burden may favor fewer or even a sole provider so vendors can be more easily organized. States with rural populations need to consider the geographic distribution of vendors so all offenders can be served. In any case, the State should develop a common set of reporting protocols so authorities can compare interlock data across vendors, track the number of interlocks installed in offenders' vehicles and monitor the provision of interlock services by all vendors (Voas & Marques, 2007).

Technology Choices

When deciding which ignition interlock models will be approved for operating within a State, policy makers must thoroughly review and prioritize the range of technology options available. Interlock manufacturers offer a variety of products with an ever-increasing number of features available that affect the performance, tamper-resistance, and cost of the ignition interlock technology.

Monitoring and Reporting

Most ignition interlocks collect and record a wealth of information each time the interlock is accessed. Data related to vehicle use, driver alcohol use, and attempts to circumvent the technology can provide important information for driver control authorities. Monitoring this information and using it to direct offender behavior is critical to improving public safety.

States must decide the frequency with which offenders download data from their interlocks to a service provider; decisions should also be made about how often vendors provide authorities

with data and in what form it is delivered. Many experts believe governmental authorities are in a better position to interpret interlock data than vendors. Requiring vendors to report offender non-compliance when removal of an offender's interlock privilege could be an outcome of that non-compliance may set up a conflict of interest situation for vendors.

Some experts suggest setting varying offender monitoring parameters (e.g., content and frequency of reporting requirements), basing requirements upon the level of offender and their perceived risk. Monitoring ignition interlock data can be a very important method for the responsible authority to check on the performance of an offender. Most importantly, States must ensure the existence of adequate funding to enable court or administrative monitoring of data generated by offender interlock use.

Offender Compliance

Issues with offender compliance fall into three categories: (1) whether or not an offender installs an ordered interlock, (2) whether or not an offender chooses to participate in an interlock program, or (3) the degree to which an offender lives within the restrictions of the installed technology (Marques, 2008c; Marques, 2008a).

Successfully Installing an Interlock

In typical court mandated interlock programs, two-thirds of offenders still do not install ignition interlocks (Marques, 2008c). The risk of detection for driving-while-suspended violations is low and many offenders choose to drive without a license rather than install an interlock. Installation compliance can be improved with offender monitoring by program authorities and by making interlock installation the most attractive alternative for the offender. This means offering offenders the interlock option instead of more restrictive and expensive sanctions like electronically monitored "house arrest" or alcohol transdermal monitoring (Secure Continuous Remote Alcohol Monitor or SCRAM). For offenders who avoid interlock imposition by claiming no vehicle or that they will refrain from driving during periods of suspension, it may be necessary to sentence these offenders to the less–desirable sanctions to prevent illegal driving.

Choosing to Participate

In States where offenders have a choice in whether to participate in an interlock program, motivation to install an interlock is often weak. However, States that offer interlocks as the most appealing alternative—rather than electronically monitored "house arrest" or alcohol transdermal monitoring, have greater success with offenders choosing to install interlocks. Other interlock compliance incentives suggested by researchers include reduced fines, waiving/reducing insurance surcharges, or reductions in the length of hard driver license suspension.

When an Offender Tries to Drive After Drinking

The consequences for an offender who provides an elevated interlock BAC test vary greatly from State to State. Extremes range from no response because authorities do not monitor the offender interlock data generated by the technology to a very strong response—one or two elevated tests are grounds for removal from the interlock program. Some State programs simply conclude an interlock sanction is successful when it prevents the driver from driving after drinking. Other programs expect interlocks to monitor offender abstinence, a role interlock experts believe is not appropriate for the technology.

States must consider the outcome they are ultimately seeking: if protection of the public is the goal, the immediate denial of an offender's ability to drive may be sanction enough for an elevated test. If the interlock is viewed as a tool to induce sobriety for an individual offender, elevated tests may demand further sanctions.

Research has found 60 to 80 percent of interlocks log positive BAC tests—most occurring in the morning, even though the majority of all tests occur between 4 and 6 p.m. (Marques et al., 2001). Experts believe most of the morning alcohol-positive tests are completed by drivers who drank heavily the night before and discover the realities of alcohol dissipation curves. Many experts suggest that after an initial "learning period," most offenders discover how to successfully drive within the parameters of the interlock (Beirness et al., 2007).

Many drivers circumvent interlock sanctions by driving non-interlocked vehicles. Experts suggest States consider penalties for this type of circumvention that are equal to or greater than Driving After Suspension or Revocation charges. Some States are considering setting vehicle usage criteria when offenders are ordered to install an ignition interlock; legal sanctions could then be brought to bear on an offender who does not drive the interlocked vehicle.

Flexibility is recommended in setting and extending interlock time requirements when offenders do not comply with interlock sanctions. Reasons for extending a period of interlock installation might include skipped tests, failed retests, circumventions, or a pattern of elevated BAC tests. Removal criterion should be based upon some period of alcohol-free driving; additional interlock time should be considered for subsequent DWI arrests.

Other Considerations

Stakeholder Involvement

As States consider implementing or improving ignition interlock programs, it is important to involve stakeholders in the process. Advisory committees or implementation work groups comprised of law enforcement, judges, prosecutors, State licensing administrators and treatment professionals can be critical in creating an effective interlock program. Once created, educational programs explaining the interlock program and technology for State agencies, the criminal justice system and the public will promote understanding and acceptance of this important sanction.

It is essential that law enforcement officials can easily identify offenders who are sentenced to drive interlocked vehicles. States should consider penalties for offenders who drive non-interlocked vehicles as well as note the interlock status on an offender's driver license for the benefit of law enforcement and other authorities.

Ignition Interlocks and Substance Abuse Treatment

Ignition interlocks have great potential to change the behavior of drivers who continue to combine drinking and driving. Interlocks can serve as a nexus between criminal justice system sanctions and substance abuse treatment by restricting offender's driving privileges while giving them the opportunity to learn how alcohol consumption affects behavior (Beirness, 2001). The ignition interlock should be incorporated into a comprehensive offender rehabilitation program to reduce the likelihood of recidivism once the interlock is removed (Beirness et al., 1998).

Point - Counterpoint

Point: Ignition interlocks reduce recidivism for first-time and repeat DWI offenders.

Counterpoint: Once the ignition interlock is removed from an offender's vehicle, rates of recidivism may return to pre- ignition interlock levels.

Commentary:
In a perfect world, the imposition of an ignition interlock would create a permanent change in the drinking and driving behavior of a DWI offender. In reality, many in the highway safety community are satisfied with the ignition interlock's "incapacitating" effect that prevents alcohol-impaired driving during the period of installation. During the installation period, ignition interlocks appear to help some offenders make changes in their long term drinking and driving behavior. For others, the sanction ceases to be effective when the ignition interlock is removed. Research is not clear as to the optimal length of ignition interlock period necessary to maximize behavior change (Marques, 2008a).

Many believe that, if the length of the period were increased and/or if ignition interlock use were combined with close supervision and/or substance abuse treatment, then the benefits would endure (Marques, 2008a).

Point: Offenders have concerns about installing an ignition interlock on their vehicle. Concerns cited include social embarrassment, family inconvenience, long warm-up times, and frequency of "rolling retests."

Counterpoint: Offenders ordered to install ignition interlocks are able to drive legally when using the technology, often sooner than if the offender did not install an ignition interlock.

Commentary:
With an ignition interlock installed, DWI offenders can maintain employment, attend school, get treatment, and take care of family obligations—yet are prevented from driving if alcohol has been used. Offenders and their families benefit because they are not faced with the same transportation, financial, and legal consequences as offenders who choose not to install ignition interlocks (Robertson et al., 2006).

Point: Across the United States, installation rates of ignition interlocks are low.

Counterpoint: In most States, offenders lack incentives for choosing ignition interlocks.

Commentary:
Many reasons account for low ignition interlock installation rates: uneven application of the sanction, offenders claim they do not own a vehicle or they say they will not drive during a license suspension or revocation. Other offenders simply fail to follow through on the ignition interlock installation or drive vehicles without ignition interlocks installed. Close supervision can help to close some of these loopholes.

The often long delay between licensing action and required ignition interlock installation teaches many DWI offenders that they do not need a license to drive. Research is clear (Baker et al., 2002; Marques et al., 2003a, 2003b) that the majority of offenders (perhaps as many as 75% of them) continue to drive after license suspension, at least on occasion, and many continue to drink and drive. For ignition interlock programs to be successful, the installation of an ignition interlock must offer offenders a more attractive or less intrusive alternative to driving unlicensed or driving after drinking (Robertson et al., 2006).

Point: Ignition interlocks should be court-ordered.

Counterpoint: Ignition interlocks should be administrative sanctions.

Commentary:

Benefits and challenges exist in each type of program. Courts more often offer mechanisms to provide monitoring and follow-up through probation or court services, but engaging the many members of the judiciary and developing a common practice of ignition interlock imposition can be difficult. Administrative programs often offer more consistent application of ignition interlock sanctions and involve fewer people, which can make program management more efficient. However, administrative bodies typically possess less leverage with drivers than courts do to encourage program compliance. Twenty-one States operate court-based ignition interlock programs, eight run administrative programs and 19 States use a combination of judicial and administrative implementation of their ignition interlock programs.

Point: Ignition interlocks provide a monitoring system in which trying to start a vehicle after drinking produces an immediate sanction for the offender– the inability to start a vehicle.

Counterpoint: Interlocks may reduce drinking and driving even though they may not change the quantity an offender drinks.

Commentary:

Sanctions for impaired drivers often must balance the competing interests of public safety and individual sobriety. Ignition interlocks protect the public safety for other road users while offenders learn to separate driving from drinking. In cases where courts require offenders to abstain from alcohol, ignition interlocks can provide information to the courts about attempted drinking and driving behavior, but ignition interlocks are not designed to serve as an abstinence monitoring tool. Other technologies, such as home monitoring or transdermal alcohol monitoring devices (e.g., SCRAM) are better suited to monitor offender abstinence (Marques, 2008a).

Point: Some States require ignition interlock installation soon after arrest or conviction for the DWI offense.

Counterpoint: Some States require ignition interlock usage only upon reinstatement of driving privileges.

Commentary:

Deterrence theory suggests the sooner a sanction is imposed, the more likely it will be effective. Some States are reducing hard license revocation periods when an ignition interlock device is installed, believing public safety is increased during a time when many DWI offenders continue to drive, despite license suspension or revocation. If over time offenders learn they can drive undetected during revocation periods, there is little incentive to re-enter the licensing control system and install an ignition interlock in order to regain legal driving privileges.

Media Talking Points

Overview

Ignition interlock technology is a promising tool in the fight against alcohol-impaired driving. Using technology that stops a drinking driver from starting a motor vehicle, the acts of drinking and driving are effectively separated. This improvement in public safety benefits all motorists sharing the roadway. Most States have enacted laws that mandate or allow ignition interlocks as a sanction for DWI offenders; many are considering upgrades or improvements to existing laws.

Talking Points

- Ignition interlocks stop DWI offenders from driving after drinking.
  - Research is clear—for the period when ignition interlocks are installed on an offender's vehicle, rates of DWI recidivism are reduced an average of 64 percent (Voas & Marques, 2003; Willis et al., 2005; Vezina, 2002; Tippetts & Voas, 1997; Coben & Larkin, 1999).
  - The safety of the motoring public is protected—a drinking driver cannot drive a vehicle when an interlock is installed.
  - When surveyed, 85 percent of New Mexico DWI offenders thought ignition interlocks were fair to DWI offenders; 87 percent felt ignition interlocks reduced driving after drinking (Roth, 2005, in Robertson et al., 2006).
- Ignition interlocks allow offenders to drive legally to work, school, chemical addiction treatment and to take care of family obligations.
  - Research finds up to 75 percent of offenders drive illegally after a DWI arrest and license suspension (Baker et al., 2002; Marques et al., 2003a, 2003b).
  - Ignition interlocks give offenders a way to regain legal driving privileges while ensuring they drive alcohol-free.
  - The inability to drive legally can be a serious barrier to maintaining employment and completing substance abuse treatment, especially in areas lacking public transportation alternatives.
  - Ignition interlocks allow offenders to take care of family and court-ordered responsibilities.
- Ignition interlocks are a cost-effective sanction for DWI offenders.
  - Ignition interlock costs are borne by the offenders: installation of an ignition interlock runs between $100 and $250 and typical monthly costs are between $65 and $90 (Marques, 2008a).
  - Daily costs are approximately equal to the cost of one to two alcoholic drinks per day, or $2 to $3 per day, and far less than the costs of incarceration or electronic monitoring (Marques, 2008a).
  - Research shows that the public saves $3 to $7 for every $1 spent on ignition interlock devices for DWI offenders (Miller, 2005)

References

Baker, S. P., Braver, E. R., Chen, L-H., Li, G., & Williams, A. F. (2002). Drinking Histories of Fatally Injured Drivers. *Injury Prevention 8*(3), 221–226.

Beck, K., Rauch, W., Baker, E., & Williams, A. (1999). Effects of Ignition Interlock License Restrictions on Drivers with Multiple Alcohol Offenses: A Random Trial in Maryland. *American Journal of Public Health 89,* 1696–1700.

Beirness, D. J., Simpson, H. M., & Mayhew, D. R. (1998). Programs and Policies for Reducing Alcohol-Related Motor Vehicle Deaths and Injuries. *Contemporary Drug Problems 25,* 553–578.

Beirness, D. J. (2001). Best Practices for Alcohol Interlock Programs. Ottawa: Traffic Injury Research Foundation.

Beirness, D. J., Simpson, H. M., & Robertson, R.D. (2003). International Symposium on Enhancing the Effectiveness of Alcohol Ignition Interlock Programs. *Traffic Injury Prevention 4*(3), 179–182.

Beirness, D. J., & Marques, P. M. (2004). Alcohol Ignition Interlock Programs. *Traffic Injury Prevention 5*(3), 299–308.

Beirness, D. J., Clayton, A., & Vanlaar, W. G. M. (2007). An Investigation of the Usefulness, the Acceptability and Impact on Lifestyle of Alcohol Ignition Interlocks in Drink Driving Offenders. Road Safety Research Report No. 88. London: Department for Transport.

Coben, J. H., & Larkin, G. L. (1999). Effectiveness of Ignition Interlock Devices in Reducing Drunk Driving Recidivism. *American Journal of Preventive Medicine 16,* 81–87.

DeYoung, D. J. (2002). An Evaluation of the Implementation of Ignition Interlock in California. *Journal of Safety Research 33,* 473–482

EMT Group. (1990). Evaluation of the California Ignition Interlock Pilot Program for DWI Offenders (Farr-Davis Driver Safety Act of 1986). Prepared for The California Department of Alcohol and Drug Programs and The California Office of Traffic Safety. Sacramento, CA: The EMT Group, Inc.

Ignition Interlock FAQs. (2009, March). Mothers Against Drunk Driving. (http://www.madd.org).

Jones, B. (1993). The Effectiveness of Oregon's Ignition Interlock Program. In: H.D. Utzelmann, H. D., Berghaus, G., Kroj, G. (Eds.) Alcohol, Drugs and Traffic Safety—T-92: Proceedings of the 12th International Conference on Alcohol, Drugs and Traffic Safety, Köln, Germany, 28 September—2 October 1992. Köln: Verlage TÜV Rheinland GmbH, Vol. 3, pp. 1460–1465.

Marques, P. R., Tippetts, A. S., Voas, R. B., & Beirness, D. J. (2001). Predicting Repeat DWI Offenses with the Alcohol Interlock Recorder. *Accident Analysis and Prevention 33*(5), 609–619.

Marques, P. R., Tippetts, A. S., & Voas, R. B. (2003a). The Alcohol Interlock: An Underutilized Resource for Predicting and Controlling Drunk Drivers. *Traffic Injury Prevention 4*(3), 188–194.

Marques, P. R., Tippetts, A. S., & Voas, R. B. (2003b). Comparative and Joint Prediction of DUI Recidivism from Alcohol Ignition Interlock and Driver Records. *Journal of Studies on Alcohol 64*(1), 83–92.

Marques, P. R., & Voas, R. B. (2008a, February). Alcohol Interlock Program Features Survey. Unpublished Survey Results from the Interlock Working Group of the International Council of Alcohol Drugs and Traffic Safety.

Marques, P. R. (2008b, March). Engaging and Educating Treatment Professionals and their System of Care. Presentation at the 9th Annual International Alcohol Interlock Symposium, Tallberg, Sweden 2008. (www.interlocksymposium.com/site/ywd_acs_corporation/assets/pdf/PaulMarques_2008.pdf).

Marques, P. R. (2008c, October). "Alcohol Ignition Interlock Facts (and some evidence—based conjectures)." Calverton, MD: Pacific Institute for Research and Evaluation, pp. 1–4.

Miller, T. R., & Hendrie, D. (2005). How Should Governments Spend the Drug Prevention Dollar: A Buyer's Guide, in Stockwell, T., &Gruenewald, P., et al. (eds), *Preventing Harmful Substance Use: The Evidence Base for Policy and Practice*, West Sussex: John Wiley & Sons, 415–431.

Morse, B. J., & Elliott, D. S. (1992). Hamilton County Drinking and Driving Study. Interlock Evaluation: Two Year Findings. Boulder, CO: University of Colorado Institute of Behavioral Science.

NHTSA. (2007). Reducing Impaired-Driving Recidivism Using Advanced Vehicle-Based Alcohol Detection Systems: A Report to Congress. DOT HS 810 876. Washington, DC: National Highway Traffic Safety Administration, pp. 9–15.

NHTSA. (2008a). Traffic Safety Facts 2007: Alcohol-Impaired Driving. DOT HS 810 985. Washington, DC: National Highway Traffic Safety Administration.

NHTSA. (2008b). Traffic Safety Facts 2007: Overview. DOT HS 810 993. Washington, DC: National Highway Traffic Safety Administration.

National Interlock Service. (2009, March). Participant FAQ's. (www.nationalinterlock.com/faq.asp)

Popkin, C. L., Stewart, J. R., Beckmeyer, J., & Martell, C. (1993). An Evaluation of the Effectiveness of Interlock Systems in Preventing DWI Recidivism Among Second-Time DWI Offenders. In: Utzelmann , H.D., Berghaus, G., & Kroj, G. (Eds.) Alcohol, Drugs and Traffic Safety—T-92: Proceedings of the 12th International Conference on Alcohol, Drugs and Traffic Safety, Köln, Germany, 28 September—2 October 1992. Köln: Verlage TÜV Rheinland GmbH, Vol. 3, pp. 1466–1470.

Raub, R. A., Lucke, R. E., & Wark, R. I. (2003). Breath Alcohol Ignition Interlock Devices: Controlling the Recidivist. *Traffic Injury Prevention 4,* 199–205.

Robertson, R. D., Vanlaar W. G. M., & Simpson, H. M. (2006). Ignition Interlocks From Research to Practice: A Primer for Judges. Ottawa: Traffic Injury Research Foundation.

Roth, R. (2005). Surveys of DWI Offenders Regarding Ignition Interlocks. Anonymous surveys conducted before Victim Impact Panels in Santa Fe and Albuquerque, NM. (Personal communication cited in Robertson, R. D., Vanlaar W. G. M., & Simpson, H. M. (2006). Ignition Interlocks From Research to Practice: A Primer for Judges. Ottawa: Traffic Injury Research Foundation.)

Roth, R., Voas, R., & Marques, P. (2007). Interlocks for First Offenders: Effective? *Traffic Injury Prevention 8,* 346–352.

Roth, R. (2008a, September). Estimates of Currently Installed Interlocks in the US. GHSA conference handout.

Roth, R. (2008b, March). New Mexico Interlock Program Overview. PowerPoint presentation 10-28-08, Drive Sober Illinois Web site. drivesoberillinois.org/pdf/Richard%20Roth.pdf.

Tippetts, A. S., & Voas, R. B. (1997). The Effectiveness of the West Virginia Interlock Program on Second Drunk-Driving Offenders. In: Mercier-Guyon, C. (Ed.) Alcohol, Drugs and Traffic Safety—T97. Proceedings of the 14th International Conference on Alcohol, Drugs and Traffic Safety, Annecy, France, September 21–26, 1997. Annecy: CERMT, Vol.1, pp. 185–192.

Tippets, A. S., & Voas, R. B. (1998). The Effectiveness of the West Virginia Interlock Program. *Journal of Traffic Medicine 26,* 19–24.

Traffic Injury Research Foundation (2009). Alcohol Interlock Curriculum: Research Summary. Curricula Research Summary, Ottawa: pp.1–43.

Vezina, L. (2002). The Quebec Alcohol Interlock Program: Impact on Recidivism and Crashes. In: Mayhew, D. R., & Dussault, C. (eds.) Alcohol, Drugs and Traffic Safety–T2002. Proceedings of the 16th International Conference on Alcohol, Drugs and Traffic Safety. Montreal, August 4–9, 2002. Quebec City: Societe de l'assurance automobile du Quebec, pp. 97–104.

Voas, R. B., Marques, P. R., Tippetts, A. S., & Beirness, D. J. (1999). The Alberta Interlock Program: The Evaluation of a Province-wide Program on DWI Recidivism. *Addiction 94*(12), 1849–1859.

Voas, R. B., & Marques, P. R. (2003). Commentary: Barriers to Interlock Implementation. *Traffic Injury Prevention 4*(3), 183–187.

Voas, R. B., Roth, R., & Marques, P.R. (2005). Interlocks for First Offenders: Effective? In: Robinson, R. D., Vanlaar, W. G. M., Beirness, D. J. (Eds.) Alcohol Interlock Programs: A Global Perspective. Proceedings of the 6th International Symposium on Alcohol Ignition Interlock Programs, Annceny, France, September 25–27, 2005. Ottawa: Traffic Injury Research Foundation, pp.7–8.

Voas, R. B., & Marques, P. R. (2007). History of Alcohol Vehicle Interlock Programs: Lost Opportunities and New Possibilities. Eighth Annual Ignition Interlock Symposium, Seattle, WA.

Weinrath, M. (1997). The Ignition Interlock Program for Drunk Drivers: A Multivariate Test. *Crime and Delinquency 43*(1), 42–59.

Willis, C., Lybrand, S., & Bellamy, N. (2005). Alcohol Ignition Interlock Programmes for Reducing Drink Driving Recidivism (Review). *The Cochrane Database of Systematic Reviews* (4).

Appendix

Current Use of the Technology

State*	Interlocks Mandatory Y/N	Law Passed	Administrative/ Judicial	DWI Offender(s) Eligible	Indigent Fund Y/N	Interlocks In Use 2008***	2007 DWI Arrests (FBI UCR Data)**	Interlock Manufacturers Approved to Provide Services	State Contact
Alabama						4	12,857		
Alaska	Y	(6/08)	Judicial	Mandatory for all offenders	N	41	5,187	Draeger, SmartStart	Deputy Commissioner, AK Dept. of Corrections, 907-465-4670
Arizona	Y	(5/07)	Administrative	Mandatory for all offenders	N	6,849	38,260	Alcohol Detection Systems, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Criminal Justice Liaison, Ignition Interlock Program Manager, Motor Vehicle Division, AZ DOT, 602-712-7677
Arkansas	N		Both	Required for 1st, 2nd and 3rd time offenders seeking restricted licenses	N	1,366	8,892	Draeger, Guardian, LifeSafer, SmartStart	Manager, Driver Control, Office of Driver Services, AR Dept. of Finance and Administration, 501-682-7060
California	Y		Both	Mandatory for repeat DWI while DAR/S offenders; others permissive	N	5,904	204,015	Alco Alert Interlock, Alcohol Detection Systems, Autosense International, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Manager, CA DMV Driver Licensing Policy Unit, 916-657-6217
Colorado	Y	(4/08)	Administrative	Mandatory for repeat offenders; others permissive	Y	6,104	27,969	Alcohol Sensors International, AutoSense International, Combined Systems Technology, Draeger, Guardian, LifeSafer, SmartStart	Operations Director / Driver Control, CO Dept. of Revenue, 303-205-5795
Connecticut	N		Both	Repeat offenders	Y	335	8,571	Alcohol Detection Systems, Consumer Safety Technology, Draeger, SmartStart	Senior Assistant State's Attorney, Traffic Safety Resource Prosecutor, CT Division of Criminal Justice, 860-258-5926
Delaware	Y		Judicial	Mandatory for repeat offenders; others permissive	Y	83	229	Draeger, LifeSafer	Management Analyst, DE Office of Highway Safety, 302-672-7639
District of Columbia	N		Both	Repeat offenders	Y	-	23	No manufacturers have yet been approved	DMV Driver Services Administrator, 202-727-5450

State*	Interlocks Mandatory Y/N	Law Passed	Administrative/ Judicial	DWI Offender(s) Eligible	Indigent Fund Y/N	Interlocks In Use 2008***	2007 DWI Arrests (FBI UCR Data)**	Interlock Manufacturers Approved to Provide Services	State Contact
Florida	Y	(6/08)	Both	Mandatory for repeat, high (.15+) BAC, or offenders with a minor in vehicle; others permissive	N	6,738	58,824	Alcohol Countermeasure Systems, LifeSafer	Bureau of Driver Education & DUI Programs, Division of Driver Licenses, 850-617-3815
Georgia	Y		Judicial	Mandatory for repeat offenders; others permissive	N	1,919	26,442	Alcohol Detection Systems, AutoSense International, Consumer Safety Technology, Determinator, Draeger, Guardian, LifeSafer, Safety Interlock Systems, SmartStart	Regulatory Compliance Division, GA Dept. Driver Services, 770-413-8413
Hawaii	Y	(7/2010)	Both	Mandatory for repeat and high (.15+) BAC offenders; may change to all with 2009 Legislature	Y	-	5,059*	TBD	Highway Safety Specialist, HI DOT, 808-587-6315
Idaho	Y		Judicial	Mandatory for repeat offenders; others permissive	Y	455	11,014	Consumer Safety Technology, Guardian, LifeSafer, SmartStart	Grants/Contract Officer, Office of Highway Operations and Safety, 208-334-4467
Illinois	Y	(8/07)	Judicial	Mandatory for all offenders	Y	3,387	5,624	AAA Interlock, Alco-Test, Consumer Safety Technology, Guardian, National Interlock Systems, SmartStart	Director BAIID & MDDP, 207 Howlett Bldg., Springfield, IL 62756, 217-782-4128
Indiana	N		Judicial	All offenders	N (Indigents do not have to pay; unclear who pays in this case)	182	23,463	Guardian, SmartStart	Traffic Safety Resource Prosecutor, 317-232-1836
Iowa	Y		Both	Mandatory for all offenders with BAC of .10+ or involved in a crash	N	4,618	13,130	Autosense, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Governor's Traffic Safety Bureau, IA DPS, 515-725-6128

State*	Interlocks Mandatory Y/N	Law Passed	Administrative/ Judicial	DWI Offender(s) Eligible	Indigent Fund Y/N	Interlocks In Use 2008***	2007 DWI Arrests (FBI UCR Data)**	Interlock Manufacturers Approved to Provide Services	State Contact
Kansas	Y		Both	Mandatory for all but 1st offenders with BAC less than .15	Y	861	12,080	Autosense International, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Chief, Driver Control Bureau, DMV, KS Dept. of Revenue, 785-296-6894
Kentucky	N		Judicial	Repeat offenders	N	252	3,490	Alcohol Sensor International, AutoSense International, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Court Record Section Supervisor, Div. of Driver Licensing, Dept. of Vehicle Regulation, 502-564-0279 x 4205
Louisiana	Y	(7/07)	Judicial	Mandatory for all offenders	N	1,823	8,725	Alcohol Detection Systems, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Driver Management Manager, Office of Motor Vehicles, LA DPS, 225-925-6983
Maine	N		Administrative	Repeat offenders	N	-	8,097	No devices have yet been approved by the State	Sr. Section Manager, Driver License Services, ME Bureau of Motor Vehicles, 207-624-9095
Maryland	N		Both	Repeat offenders and specific others	Y	5,966	24,230	Alcohol Detection Systems, Guardian, Draeger, National Interlock, SmartStart	Driver Programs, MD Motor Vehicle Administration, 410-424-3043
Massachusetts	Y		Both	Mandatory for repeat offenders seeking a hardship license; others permissive	N	2,186	11,746	Alcohol Detection Systems, Draeger, Guardian, LifeSafer, SmartStart	Executive Office of Transportation, Registry of Motor Vehicles, Interlock Compliance Department, 617-351-9119
Michigan	N		Judicial	Repeat offenders	Y (Low income offenders pay $1/day by law)	3,994	40,584	American Interlock, National Interlock Service, New Horizon Interlock, SmartStart	Ignition Interlock Coordinator, Driver Assessment and Appeal Division, MI Dept. of State, 517-335-0104
Minnesota	N		Administrative	All offenders	N	9	31,735	Consumer Safety Technology, Draeger, SmartStart	Alcohol Coordinator, Office of Traffic Safety, MN DPS, 651-201-7074

State*	Interlocks Mandatory Y/N	Law Passed	Administrative/ Judicial	DWI Offender(s) Eligible	Indigent Fund Y/N	Interlocks In Use 2008***	2007 DWI Arrests (FBI UCR Data)**	Interlock Manufacturers Approved to Provide Services	State Contact
Mississippi	N		Judicial	Repeat offenders	N	52	7,881	LifeSafer	Section Chief, MS Crime Lab, 601-987-1600
Missouri	Y	(5/08)	Judicial	Mandatory for repeat offenders; others permissive	N	2,743	31,633	AutoSense Int'l., Consumer Safety Technology, Draeger, Guardian, Lifesafer, SmartStart	Sr. Systems Management Analyst, Highway Safety Division, MO DOT, 573-751-5960
Montana	N		Judicial	All offenders	N	136	3,264	Consumer Safety Technology, Guardian	Chief, Records and Driver Control Bureau, Motor Vehicle Division, 406-444-1776
Nebraska	Y	(4/08)	Both	Mandatory for all offenders	N	1,030	12,350	Alcohol Detection Systems, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Legal Counsel, NE Dept. of Motor Vehicles, 402-471-4706
Nevada	Y		Judicial	Mandatory for high (.18+) BAC, fatal or serious injury crash, 3rd or more offenders seeking a restricted license; others permissive	N	405	12,538	Alcohol Detection System, Consumer Safety Technology, Draeger, Guardian, National Interlock System, SmartStart	Impaired Driving Programs Manager, Office of Highway Safety, NV DPS, 775-684-7477
New Hampshire	Y		Judicial	Mandatory for repeat DWI while DAR/S offenders immediately; aggravated and repeat offenders after period of revocation	N (Hardship credit funded by providers)	7	4,146	Consumer Safety Technology, Draeger	Administrator, Division of Motor Vehicles, NH Dept. of Safety, 603-271-0351
New Jersey	N		Judicial	All offenders	N	617	25,031	Alcohol Detection Systems, Draeger, Guardian, National Interlock Service, SmartStart	Motor Vehicle Commission, Interlock Bureau, NJ DOT, 609-292-4630

State*	Interlocks Mandatory Y/N	Law Passed	Administrative/ Judicial	DWI Offender(s) Eligible	Indigent Fund Y/N	Interlocks In Use 2008***	2007 DWI Arrests (FBI UCR Data)**	Interlock Manufacturers Approved to Provide Services	State Contact
New Mexico	Y	(6/05)	Both	Mandatory for all offenders	Y	8,133	10,006	Alcohol Countermeasure Systems, Alcohol Detection Systems, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Ignition Interlock Program Manager, Traffic Safety Bureau, NM DOT, 505-795-2407
New York	Y		Judicial	Mandatory for high (.18+) BAC offenders; other repeat offenders permissive	N	1,276	28,440	Alcohol Detection Systems, Consumer Safety Technology, Draeger, Guardian, Interceptor Ignition Interlock, LifeSafer, SmartStart	NYS Dept. of Probation and Correctional Alternatives, 518-485-9941
North Carolina	Y		Both	Mandatory for repeat and high (.15+) BAC offenders seeking a hardship license; others permissive	N	8,003	26,928	Monitech	Chief Resource Prosecutor, NC Conference of District Attorneys, 919-890-1500
North Dakota	N		Both	All offenders	N	-	4,115	None approved to date	Manager, Traffic Safety Office, ND DOT, 701-328-4434
Ohio	N		Judicial	All offenders	N	2,580	19,155	Alcohol Countermeasures System, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	OH DPS Legal Section, 614-752-7014
Oklahoma	N		Both	Repeat offenders reinstating a drivers license	N	1,722	18,229	Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Ignition Interlock Program Administrator, Board of Tests for Alcohol and Drug Influence, 405-425-2468
Oregon	Y		Both	Mandatory for all offenders seeking a hardship license; all at end of suspension	Y	1,651	17,096	Alco Alert Interlock, Consumer Safety Technology, Draeger, Guardian , LifeSafer, SmartStart	Driver Control Program Coordinator, OR DOT - DMV, 503-945-5276

State*	Interlocks Mandatory Y/N	Law Passed	Administrative/ Judicial	DWI Offender(s) Eligible	Indigent Fund Y/N	Interlocks In Use 2008***	2007 DWI Arrests (FBI UCR Data)**	Interlock Manufacturers Approved to Provide Services	State Contact
Pennsylvania	Y		Administrative	Mandatory for repeat offenders	N	3,419	49,238	Alcohol Countermeasures Systems Corp., Alcohol Detection Systems, Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	Manager of Alcohol Programs, PA DOT, 717-783-1902
Rhode Island	N		Judicial	Repeat offenders	N	1	2,131	None approved to date	Supervisor, Breath Analysis Section, Forensic Sciences Laboratory, RI Dept. of Health
South Carolina	N	(5/08)	Judicial	Repeat offenders	Y	3	11,712	National Interlock Systems	Director, Program Development and Grants Management, SC Probation, Parole and Pardon Services, 803-734-2789
South Dakota						76	4,203		
Tennessee	Y		Both	Mandatory for 2nd in 5 years offender seeking a restricted license; permissive for others	N (May be paid from ADAT funds)	246	27,178	Consumer Safety Technologies, Draeger, SmartStart	TN Highway Patrol, TN Dept. of Safety, 615-687-2400
Texas	Y		Judicial	Mandatory for repeat and high (.15+) BAC offenders; others permissive	N (No indigent fund but providers will reduce costs for indigents)	14,395	88,236	Consumer Safety Technology, Draeger, Guardian, LifeSafer, SmartStart	TX Judicial Resource Liaison, 512-482-8986
Utah	N		Both	All offenders	N (No indigent fund, however court can order provider to absorb costs)	1,311	7,204	Alcohol Sensors International, Consumer Safety Technology, Guardian, LifeSafer, SmartStart	Alcohol Program Manager, Highway Safety Office, UT DPS, 801-957-8586
Vermont						2	3,662		

State*	Interlocks Mandatory Y/N	Law Passed	Administrative/ Judicial	DWI Offender(s) Eligible	Indigent Fund Y/N	Interlocks In Use 2008***	2007 DWI Arrests (FBI UCR Data)**	Interlock Manufacturers Approved to Provide Services	State Contact
Virginia	Y	(3/08)	Administrative	Mandatory for repeat and high (.15+) BAC offenders; others permissive	N (No indigent fund, however court may waive or reduce fees for indigents)	4,253	24,170	Draeger	Executive Director, Commission on VASAP, 804-786-5895
Washington	Y	(3/08)	Both	Mandatory for all offenders	N	9,997	37,317	Autosense International, Consumer Safety Technology, Draeger, Guardian, Lifesafer, SmartStart	Impaired Driving Program Manager, WA Traffic Safety Commission, 360-725-9889
West Virginia	Y	(4/08)	Administrative	Mandatory for repeat offenders	Y	1,095	6,327	LifeSafer	Supervisor, DUI-Interlock Section, WV DMV, 304-558-1672
Wisconsin	Y		Judicial	Mandatory for 2nd in 5 years; other repeat offenders permissive	N	967	41,308	Consumer Safety Technology, Draeger, LifeSafer	Chief, Driver Information Section, WI DOT 608-264-7002
Wyoming	Y		Administrative	Mandatory for repeat and high (.15+) BAC offenders, test refusers	N	141	6,116	Consumer Safety Technology, SmartStart	Program Manager, WY DOT, 307-777-4815
Total						117,337****			

* State laws current as of May 2009
** 2006 FBI UCR data
*** Ignition interlock manufacturer SmartStart does not report devices in use by State. SmartStart reported 29,000 devices in use in the United States as of August 2008.
**** Total U.S. ignition interlock use 146,337 (Roth, 2008a).

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