

Evaluation of Leandra's Law

Impact of the Expansion of the Ignition Interlock Sanction

September 2015

Conducted by

**The Institute for Traffic Safety Management and Research
University at Albany, State University of New York**

for

**New York State
Governor's Traffic Safety Committee**

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CHAPTER ONE: INTRODUCTION

BACKGROUND

New York's Child Passenger Protection Act, commonly known as Leandra's Law, was enacted in late 2009 to address the serious issue of impaired driving. The law, named for an 11-year-old girl who was killed while riding in a vehicle driven by the intoxicated mother of one of her friends, has two major components. One component of Leandra's Law created a new crime of Aggravated Driving While Intoxicated (ADWI) with a Child under Age 16 in the Vehicle (Vehicle and Traffic Law Section 1192.2ab). Effective December 18, 2009, drivers who violate the ADWI/Child in Vehicle law are charged with a Class E felony and face up to four years in prison and/or a fine of \$1,000-\$5,000.

The second major component of Leandra's Law expands the use of ignition interlock devices (IIDs) as a sanction in alcohol impaired driving cases. Prior to Leandra's Law, drivers designated by the NYS Department of Motor Vehicles (DMV) as "problem drivers" who have a history of alcohol-related violations could be required to install an ignition interlock device on any vehicles they own and/or operate. The IID must be installed for five years while the problem driver restriction is in place. The DMV mandated IID is imposed and removed administratively by DMV.

Effective August 15, 2010, Leandra's Law requires **any** driver convicted of a misdemeanor or felony DWI (VTL 1192.2, 1192.2a and 1192.3) to install an IID for a minimum of six months on any vehicle they drive. This section of the law was strengthened with the passage of Chapter 169 of the Laws of 2013; effective November 1, 2013, the period of the interlock sanction was increased from a minimum of six months to a minimum of 12 months. The implementation of the ignition interlock section of the law has been a particular focus of the New York State Governor's Office, the Governor's Traffic Safety Committee (GTSC), the Office of Probation and Correctional Alternatives (OPCA) within the Division of Criminal Justice Services (DCJS), the DMV and the state's Advisory Council on Impaired Driving.

To determine the effectiveness of Leandra's Law in reducing impaired driving, the GTSC has funded the Institute for Traffic Safety Management and Research (ITSMR) over the past few years to conduct studies of the various facets of the law. Designed to evaluate the implementation and effectiveness of the provisions of Leandra's Law, the studies have focused on the three issues described below.

Increased Penalties for Impaired Driving with Children Under Age 16 in the Vehicle

To determine the effectiveness of this provision of the law, in 2011 ITSMR conducted a study focusing on the implementation of the new violation of ADWI/Child in Vehicle (VTL 1192.2ab). The study involved analyses of the tickets issued for violation of VTL 1192.2ab during the first 18 months of the law (December 18, 2009-June 30, 2011) and their adjudication by the courts. The study also looked at crashes attributed to impaired driving where children were present in the vehicle.

Using ticket data extracted from the TSLED system (Traffic Safety Law Enforcement and Disposition), the analyses focused on drivers ticketed for 1192.2ab violations and the adjudication outcome of these tickets. TSLED includes all tickets issued for impaired driving offenses in New York State with the

exception of New York City and five western towns in Suffolk County on Long Island. The DMV driver license file, which contains information on all drivers in the state convicted of a misdemeanor or felony DWI, was the source for further analyses on the drivers convicted of these violations. These analyses included the penalties and sanctions imposed, involvement in a crash in association with the violation, and the extent to which these drivers had prior alcohol-related convictions on their driving records. The analyses of the data available on the driver license file as of August 31, 2011 resulted in the following key findings regarding drivers convicted on VTL 1192.2ab violations since December 18, 2009, the effective date of the law:

- Eight out of ten drivers convicted on ADWI/Child in Vehicle violations were convicted in the Upstate region of New York.
- The drivers convicted for violating 1192.2ab were most likely to be in the 40-49 year old age group (34%), followed by the 50-59 age group (28%).
- The drivers convicted of this violation were more likely to be male (63%) than female (37%).
- 30% of the drivers convicted for ADWI/Child in Vehicle were repeat offenders (one or more prior VTL 1192 convictions in the previous ten years).
- 17% of the convicted drivers were involved in a crash in conjunction with their arrest for ADWI/Child in Vehicle.
- 92% of the drivers convicted of 1192.2ab violations had the restriction INTERLOCK DEVICE entered on their driver license record.

For a more complete description of the study and its findings, the reader is referred to the study report titled *New York State Evaluation of Leandra's Law – ADWI with Child Under Age 16 in the Vehicle* available on ITSMR's website (www.itsmr.org).

Expansion of the Ignition Interlock Sanction: Administrative Evaluation

The ignition interlock component of Leandra's Law provides that the state's OPCA be responsible for establishing the appropriate regulations to govern the expanded use of IIDs and oversee their implementation. Each of the state's 62 counties was required to submit a plan to the OPCA that describes how it would implement and monitor the use of the interlocks that are imposed on convicted impaired drivers in their county. The OPCA is responsible for overseeing the IID monitoring process implemented at the county level; the counties are reimbursed for each DWI offender sentenced to an ignition interlock and are responsible for meeting all OPCA reporting requirements. Through the GTSC, funding was made available to support the monitoring function within each county.

To assess whether the ignition interlock expansion provision of Leandra's Law is being implemented and monitored as intended, the study examined the entire monitoring process, from the point at which the monitor is notified of a driver being sanctioned to an interlock, to the installation of the IID and finally to the de-installation of the device. In examining the monitoring process, the main objectives were to identify common practices and any issues that had an impact on the implementation.

The primary source of information on the implementation and monitoring process was a telephone survey of the county IID monitors. The focus of the survey was the person who is responsible for monitoring the drivers placed on an ignition interlock as part of a conditional discharge (CD). County personnel who only monitored drivers placed on probation who were also sentenced to an interlock were not included in the survey because they follow different monitoring guidelines that are based on probation-related protocols. In total, 59 CD monitors, representing the state's 62 counties, were

interviewed for this study; all interviews were conducted by telephone. The interviews with county monitors were conducted April - June 2011.

The survey questionnaire used in the telephone interview with the CD monitors was designed by the ITSMR project staff in consultation with staff from the OPCA. In addition to general information about the monitor, the survey gathered specific information related to the drivers being monitored; the tasks involved in the monitoring process; the installation of the IID; the monitor's interaction with the driver; and the monitor's interaction with the vendor, including any follow-up associated with vendor reports.

Key findings from the 59 monitors surveyed included:

- 50 (84%) reported that the courts "always" or "most of the time" notify them when a driver has a CD and been sentenced to an interlock device; Leandra's law requires such notification.
- 41 (69%) said that they "always" or "most of the time" contact the driver prior to installation of the interlock
- 34 (58%) reported that the majority of their drivers have the interlock installed within the required 10 days of sentencing
- 53 (90%) indicated that the installer "always" or "most of the time" provides them with documentation of installation
- 16 (27%) said that they have recommended the ignition interlock period be extended for some of their drivers
- 10 (17%) have referred drivers to alcohol and substance abuse treatment

The complete results from the telephone survey of monitors were published by ITSMR in July 2011. The report, *NYS Evaluation of Leandra's law - Expansion of Ignition Interlock: Telephone Survey of County Monitors*, is available on ITSMR's website (www.itsmr.org).

Expansion of the Ignition Interlock Sanction: Impact Evaluation

The ultimate goal of expanding the use of IIDs is to reduce alcohol-impaired driving on New York's roadways. From the implementation of the ignition interlock provision of Leandra's law on August 15, 2010 through June 30, 2015, almost 86,000 motorists convicted of alcohol-impaired driving have been ordered to install IIDs in the motor vehicles that they own or operate. Of these drivers, approximately 23,500 or 27% installed an IID in a vehicle they own or operate. Statistical reports compiled by the OPCA on the installation of IIDs can be accessed at <http://www.criminaljustice.ny.gov/opca/ignition.htm>.

Since the primary objective of this component of the study is to determine the effect of the expanded use of the ignition interlock sanction on reconviction rates, ITSMR's impact evaluation focused on the driving histories of motorists convicted of a misdemeanor or felony impaired driving violation (VTL 1192.2, 1192.2a and 1192.3) who were sentenced to an IID and had it installed. The driving records of these motorists were examined to determine the extent to which they were 1) reconvicted for impaired driving during the period of interlock installation and/or after the device was uninstalled and 2) involved in a subsequent alcohol-related crash. This report presents the results from the study of this component of Leandra's Law.

ORGANIZATION OF THE REPORT

The second chapter of this report describes the research methodology used to conduct the study. Chapter 3 presents the results from the analyses of data on two groups of drivers: 1) drivers convicted of alcohol-impaired driving and sentenced to ignition interlock (Interlock Group) and 2) drivers convicted of alcohol-impaired driving before the passage and implementation of Leandra's law (Comparison Group). A summary and discussion are presented in Chapter 4.

CHAPTER TWO: RESEARCH METHODOLOGY

This chapter presents a description of the research design and methodology used to conduct the study. As noted previously, the ultimate goal of the provision of Leandra's Law that pertains to the expanded use of ignition interlock devices (IIDs) is to reduce alcohol-impaired driving on the state's roadways. In assessing whether this goal is being accomplished, the most important measure of the effectiveness of the expanded use of IIDs is the impact on the drinking and driving behavior of the motorists who had an interlock installed on the vehicles they drive. Specifically, if the convicted drivers who had an interlock installed were compared to a similar group of convicted drivers (based on age, gender and county of conviction) who did not have an interlock installed, it would be expected that the rate of reconviction for drinking and driving would be lower among the drivers who had an interlock installed than among the comparison group.

To assess the effectiveness of the expanded use of ignition interlocks, this study addressed the following key research question:

- ❖ Was the rate of reconviction for drunk driving among the drivers who had an IID installed lower than among a comparison group of drivers who did not have an IID installed?

MEASURE OF EFFECTIVENESS

In addressing the key research question, the most reliable measure of the effectiveness of the expanded ignition interlock law would be the extent to which drivers continue to drink and drive. Since there is no practical way to determine this precisely, the establishment of a valid, reliable measure is a challenging task. In other similar studies, the number of arrests for drunk driving and/or the number of alcohol-related crashes that have occurred have been used as a measure of effectiveness. However, the number of arrests for alcohol-related driving is an imperfect measure because the chances of being stopped for drinking and driving on a given occasion are minimal. In a 2009 study conducted by ITSMR, titled *Impaired Driving in New York State: Study on How Frequently Motorists Drink and Drive*, the risk of being apprehended for drinking and driving on a single occasion was estimated to be approximately one in 500 (see www.itsmr.org for a copy of the study).

In a review of the DMV driver license file, it was decided that the number of convictions for alcohol-related traffic offenses would be the most appropriate measure since conviction data have been reliably and consistently reported over time. It was further decided that the number of alcohol-related crashes would be used as a second measure of effectiveness. Although alcohol-related crashes are a much less valid measure of the incidence of drinking and driving since they occur even less frequently than alcohol-related arrests, the decision to include them as a measure was based mainly on the importance that New York's traffic safety community places on the reduction of alcohol-related crashes and fatalities whenever any new countermeasure is implemented.

COMPARISON GROUP

In addition to selecting an appropriate measure of effectiveness, a further challenge in developing an evaluation design involved the selection of an appropriate comparison group. Since the present laws and regulations governing the expanded use of IIDs precluded assignment of convicted drunk drivers to control and experimental groups, a research design using a comparison group was developed. The determination of a comparison group presents a significant research challenge since it is important to identify and select a group of drivers who were not subject to Leandra's Law and therefore were not sentenced to an IID.

It was decided that the most appropriate comparison group would be drivers who were convicted of a misdemeanor or felony DWI (VTL 1192.2, 1192.2a and 1192.3) before Leandra's Law was implemented. Further discussion on the interlock and comparison groups is presented later in this chapter.

DATA AND DATA SOURCES

The data needed to address the study's key research question was obtained from three sources. The primary data source was the driver license file maintained by the NYS Department of Motor Vehicles (DMV). The file contains the driving records of New York licensed drivers, as well as out-of-state drivers and unlicensed drivers who have been convicted of a traffic violation or have had a reportable crash within New York State. The file also contains records of conviction for some offenses committed in other states that are subject to the interstate cooperative agreements that New York participates in. Convictions for alcohol-impaired driving offenses are subject to these agreements. The driver license file captures detailed data on drivers convicted of alcohol-impaired driving and their driving histories. Data on impaired driving convictions are maintained on the driver license file for a minimum of ten years, enabling police agencies and the courts to determine the proper charge and adjudication of subsequent alcohol violations.

The second source of data for the study was the NYS Office of Probation and Correctional Alternatives (OPCA). The OPCA is responsible for monitoring drivers sentenced to an ignition interlock device. In 2010, in accordance with the regulations (Part 358 of Title 9 NYCRR), the OPCA implemented a comprehensive data collection system in each county to monitor the drivers sentenced to an ignition interlock device. Under these regulations, each county monitor is responsible for submitting a County Monitor's Report of Ignition Interlock Device Sentencing Orders Received and Installation Status to the OPCA on a quarterly basis. This report provides a variety of data on each driver sentenced to an interlock, including the driver's name, date of birth, driver license number, sentence/order date and sentencing/ordering county. Information on whether an IID was installed as of the date of the report is also collected. The data obtained from the OPCA were critical to identifying those drivers who had been sentenced to an interlock.

The third data source was the four ignition interlock vendors who had contracts with New York State to install IIDs as of January 1, 2014: 1) Draeger, 2) Intoxalock, 3) LifeSafer and 4) SmartStart. Each of these vendors provided information on the drivers for whom they had installed and uninstalled an interlock device since the inception of the IID provision of Leandra's Law on August 15, 2010. The data provided included the driver's license number, the date the interlock device was installed and the date the device was uninstalled. The driver's license number was critical for matching the drivers with IIDs installed to the DMV's driver license file for the purpose of tracking their driving history during and after the period in which they had the device installed.

DATA ANALYSIS PLAN

The primary focus of the analyses was a comparison of the subsequent drinking and driving experience of the drivers in the Interlock Group with the drivers in a Comparison Group. A summary of how the two study groups were selected and the analyses conducted is presented below.

Selection of the Interlock and Comparison Groups

Interlock Group

Three critical components were involved in the selection of the Interlock Group. The first component was the ability to identify the convicted drivers who had been sentenced to an IID under Leandra's Law and who then had it installed. The second critical component was determining the specific dates that the device was installed and uninstalled. The third important component involved having sufficient post-ignition interlock installation driving history data to examine. To address these three critical components, the selection of the interlock study group involved a multi-step process.

The first step in the selection process involved identifying the convicted drivers sentenced to an interlock under Leandra's Law. These drivers were identified from the County Monitor's Report of Ignition Interlock Device Sentencing Orders Received and Installation Status forms submitted to the OPCA on a quarterly basis. For each driver, these forms provide a license number and indicate whether or not an ignition interlock was installed. Based on the data available from these forms, 14,835 New York State drivers were shown to have been convicted of VTL 1192.2, 1192.2a and 1192.3 violations and sentenced to an IID between July 1, 2011 and June 30, 2012. [Note: The form originally used by the counties did not capture information on the installation status and was subsequently revised. The selection of the study group was delayed until the earliest quarter when the large majority of counties were using the revised report form. It was subsequently determined that the IID installation status that was reported only reflected the information available to the monitors at the time the report was compiled and could not be used to accurately determine which drivers had actually installed an IID and when the installation occurred.]

Once the group of NYS drivers who had been sentenced to an IID between July 1, 2011 and June 20, 2012 was identified, the second step in the selection process involved matching the 14,835 drivers to the data files provided by the four ignition interlock vendors. Together, the four vendors provided data on 29,265 NYS drivers who had an interlock installed. For each driver matched, the driver's NYS license number, the date the interlock device was installed and the date it was uninstalled were extracted from the vendor's file and appended to the record created for each driver under step one. At the completion of step two, 5,201 drivers were matched to the vendor files.

The next steps in the selection process involved linking the 5,201 drivers to the DMV driver license file and determining which of those drivers were eligible for inclusion in the study. A small number of drivers were excluded from the study, including those who had surrendered their NYS license and those who were deceased. For each driver selected for the study, the driving history was extracted and made available for analysis. These final steps resulted in an Interlock Group comprised of 4,512 drivers. A breakdown of the Interlock Group participants by vendor is shown in Table 2.1 below.

TABLE 2.1 Interlock Group Number of Participants by Vendor					
	Draeger	Intoxalock	LifeSafer	SmartStart	Total
NYS Drivers	3,376	11,204	7,088	7,597	29,265
NYS Drivers Matched to OPCA Data Files	454	1,719	1,457	1,571	5,201
Drivers Linked to NYS Driver License File for Study Period (July 1, 2011- June 30, 2012)	428	1,487	1,372	1,434	4,721
Drivers Included in Study	394	1,461	1,308	1,349	4,512
% of Total	8.7%	32.4%	29.0%	29.9%	

Comparison Group

The selection of the Comparison Group involved two important criteria, both designed to avoid the confounding influence of Leandra’s Law. One was to identify a group of drivers who were convicted of a VTL 1192.2, 1192.2a or 1192.3 violation prior to the passage of Leandra’s Law in November 2009, thus not being subject to an interlock sanction. The second criterion involved selecting a 12-month time period prior to passage of Leandra’s Law that would provide a sufficient post-conviction period for analysis purposes before the law was implemented. Using the DMV driver license file to identify drivers who met these two criteria, a Comparison Group was selected that included all drivers convicted of VTL 1192.2, 1192.2a and 1192.3 violations during the 12-month period of July 1, 2008 - June 30, 2009. This selection process resulted in 26,689 drivers being selected for the Comparison Group.

Analyses Conducted

The primary objective of the analyses conducted was to measure any differences between the Interlock Group and the Comparison Group with regard to their subsequent drinking and driving behavior. To accomplish this objective, two sets of analyses were conducted.

The first set of analyses examined differences between the Interlock Group and the Comparison Group with regard to their demographic characteristics (age, gender and county). The purpose of this set of analyses was to determine the extent of any differences between the drivers in the two groups.

The second set of analyses focused on the subsequent drinking and driving behavior of the drivers in the Interlock Group and the Comparison Group. Using SAS[®] software, the driving history data for each driver included in the study were analyzed to determine whether a driver had been 1) reconvicted of a VTL 1192 impaired driving offense and/or 2) involved in a subsequent alcohol-related crash.

For the Interlock Group, analyses were also conducted to determine whether a driver was convicted of a VTL 1198 offense, which covers violations related to the installation and operation of ignition interlock devices. The primary purpose of the additional analyses related to VTL 1198 violations was to provide information to the OPCA, as well as the state’s traffic safety community, on the extent to which drivers sentenced to an IID circumvent the provisions of the ignition interlock law.

The specific time periods and analyses conducted for each of the two groups are outlined below.

Interlock Group

For the drivers in the Interlock Group, their driving histories were analyzed for the following three time periods:

- 1) Between the interlock sentence date and the interlock installation date
- 2) While on the interlock
- 3) Within the 24-month period after the date that the interlock was uninstalled, focusing on a breakdown of the 24 months into when the first subsequent arrest and conviction event occurred within 3 months, 6 months, 12 months and 24 months

For each of the three time periods, analyses were conducted to determine the number of drivers who had been arrested and convicted of a VTL 1192 violation and /or been involved in an alcohol-related crash.

For time periods 1 and 2, analyses were also conducted to determine the number of drivers who had been arrested and convicted of a VTL 1198 violation.

Comparison Group

For the drivers in the Comparison Group, their driving histories were examined for the first 24 months after their VTL 1192 conviction; the conviction had to have occurred during the one-year period of July 1, 2008 - June 30, 2009. Similar to the analyses conducted for the Interlock Group, the 24-month period after the date of their conviction was examined by breaking it down into the time segments of 3 months, 6 months, 12 months and 24 months. For those time periods, analyses were conducted to determine the number of drivers who had been arrested and convicted of a VTL 1192 offense and/or had been involved in a subsequent alcohol-related crash.

The results from the two sets of analyses are presented below in Chapter 3.

CHAPTER THREE: RESULTS OF ANALYSES

This chapter presents the results of the analyses that were conducted for the two study groups, the Interlock Group and the Comparison Group. As indicated previously, the primary objective of the analyses was to measure any differences between the two groups with regard to their subsequent drinking and driving behavior. The first section of the chapter summarizes the results from the analyses of the demographics characteristics of the drivers in each group, while the second section of the chapter focuses on the analyses conducted to examine the subsequent drinking and driving behavior of the two study groups. As reported previously in Chapter 2, the two study groups were defined as follows:

Interlock Group: Drivers who had been convicted of VTL 1192.2, 1192.2a and 1192.3 violations and sentenced to an IID between July 1, 2011 and June 30, 2012 and subsequently had an IID installed.

Comparison Group: Drivers who had been convicted of VTL 1192.2, 1192.2a and 1192.3 violations during the 12-month period of July 1, 2008 - June 30, 2009.

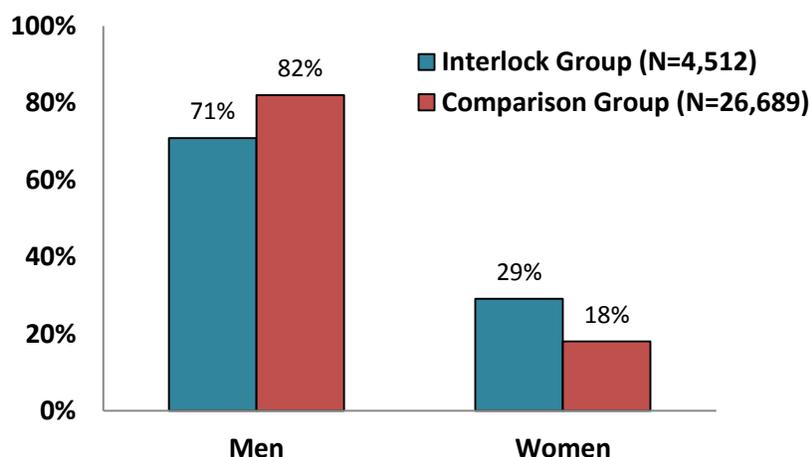
ANALYSES OF DEMOGRAPHIC CHARACTERISTICS

A series of analyses were conducted to examine various demographic characteristics associated with the drivers in each of the two study groups. The variables included the age and gender of the driver and the county in which the conviction and sentence to an interlock occurred. As noted previously, 4,512 drivers were included in the Interlock Group and 26,689 drivers were included in the Comparison Group.

Driver Gender

The analyses conducted show that a smaller proportion of drivers in the Interlock Group were men than in the Comparison Group. As shown in Figure 3.1, 71% of the drivers in the Interlock Group were men, compared to 82% of the drivers in the Comparison Group.

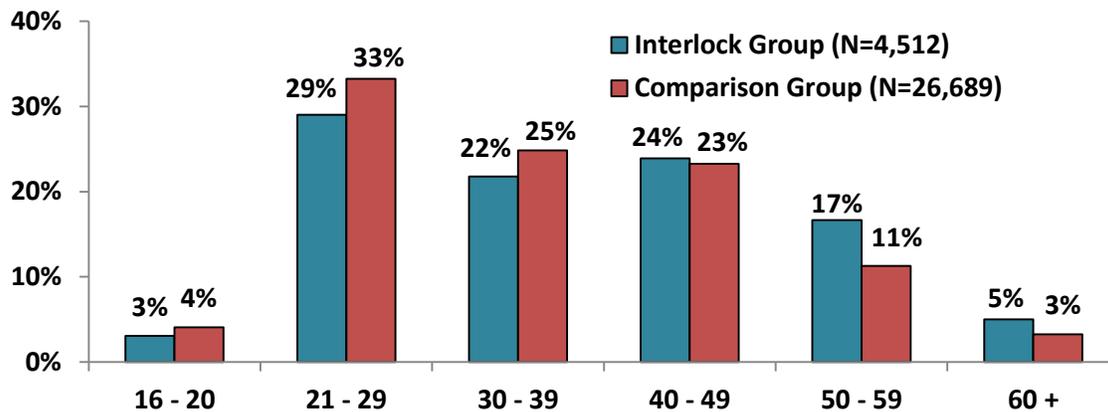
FIGURE 3.1
Drivers in the Study Groups by Gender



Driver Age

The largest proportion of drivers in both the Interlock and Comparison groups were ages 21 to 29. Figure 3.2 shows that 29% of the drivers in the Interlock Group were ages 21-29 compared to 33% of the drivers in the Comparison Group. The proportions of drivers in the 30-39 and 40-49 age groups were similar for the two groups. A larger proportion of the drivers in the Interlock Group were age 50 or older compared to the drivers in the Comparison Group (22% vs. 14%).

FIGURE 3.2
Drivers in the Study Groups by Age



County of Conviction

Analyses were also conducted by county of conviction for each of the drivers in the two study groups. The results from the analyses for the top ten counties are presented in Table 3.1. A table with the list of all 62 counties is provided in Appendix A. As indicated in Table 3.1, the same four counties are at the top of the list in both the Interlock Group and the Comparison Group, with Nassau topping the Interlock Group (11%) and Suffolk topping the Comparison Group (11%).

TABLE 3.1			
County of Conviction: Top Ten Counties			
Interlock Group (N=4,512)		Comparison Group (N=26,693)	
	%		%
Nassau	10.9%	Suffolk	11.1%
Monroe	9.6%	Nassau	8.0%
Suffolk	7.6%	Monroe	6.6%
Erie	7.5%	Erie	5.3%
Albany	3.8%	Westchester	4.6%
Orange	3.7%	Queens	4.1%
Dutchess	3.6%	Kings	3.0%
Queens	3.2%	Orange	2.9%
Ulster	2.6%	Bronx	2.8%
Ontario	2.4%	Albany	2.6%

ANALYSES OF SUBSEQUENT DRINKING AND DRIVING BEHAVIOR

Using data obtained from the DMV driver license file, the driving histories of drivers in the two study groups were analyzed to determine to what extent drivers had been reconvicted of a VTL 1192 impaired driving offense and/or involved in a subsequent alcohol-related crash. The primary purpose of the analyses was to determine whether the rate of reconviction for drunk driving among the drivers in the Interlock Group was lower than the reconviction rate among the drivers in the Comparison Group. For the Interlock Group, the analyses conducted also examined the extent to which drivers were arrested for a VTL 1198 offense, which covers violations related to the installation and operation of ignition interlock devices.

Interlock Group

As noted previously, the analyses of the driving histories with regard to subsequent impaired driving convictions for the Interlock Group focused on three time periods: 1) between the interlock sentence date and the interlock installation date, 2) while on the interlock and 3) within the 24-month period after the date that the interlock was uninstalled. Additional analyses using three-month, six-month and 12-month intervals were conducted to examine the extent to which the rate of reconviction increased over time.

In addition, the data were examined to determine to what extent the Interlock Group drivers were involved in an alcohol-related crash during any of the three time periods being studied.

Driving History Between IID Sentence Date and IID Install Date

As might be expected and is shown in Table 3.2, only a very small number of drivers in the Interlock Group were arrested for either a VTL 1192 or VTL 1198 violation between their sentence date and IID installation date and subsequently convicted. Of the 35 drivers, 21 were arrested for a VTL 1198 violation and 12 were arrested for a VTL 1192 violation. Two drivers were arrested for both a VTL 1192 and VTL 1198 offense. According to the DMV driver license file, none of the drivers in the Interlock Group were involved in an alcohol-related crash during this time period.

TABLE 3.2: INTERLOCK GROUP		
Driving History Between IID Sentence Date and IID Install Date		
(N = 4,512)		
	#	%
Drivers with VTL 1192 Arrest & Conviction	12	0.3
Drivers with VTL 1198 Arrest & Conviction	21	0.5
Drivers with both VTL 1192 & 1198 Arrests & Convictions	2	< 0.1
Total Drivers with VTL 1192 & 1198 Arrests & Convictions	35	0.8

Driving History While on IID

Similar to the driving histories of drivers during the time period between their sentence date and their IID installation date, the number of drivers in the Interlock Group arrested for a VTL 1192 or VTL 1198 offense while on the IID, and subsequently convicted, was very small. Table 3.3 shows that 44 drivers were arrested, 27 for a VTL 1192 offense, 12 for a VTL 1198 offense and five for both a VTL 1192 and VTL 1198 offense. According to the DMV driver license file, none of the drivers in the Interlock Group were involved in an alcohol-related crash while on an IID.

TABLE 3.3: INTERLOCK GROUP Driving History While on IID (N = 4,512)		
	#	%
Drivers with VTL 1192 Arrest & Conviction	27	0.6
Drivers with VTL 1198 Arrest & Conviction	12	0.3
Drivers with VTL 1192 & VTL 1198 Arrests & Convictions	5	0.1
Total Drivers with 1192 & 1198 Arrests & Convictions	44	1.0

Driving History During 24-Month Period After IID was Uninstalled

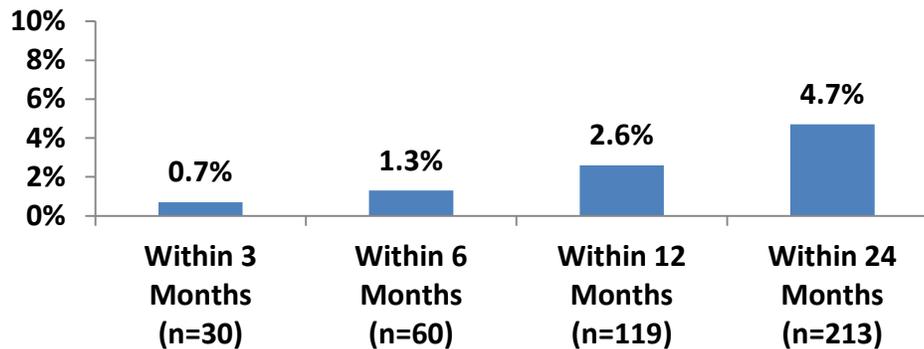
The third set of analyses examined the extent to which the drivers in the Interlock Group were arrested and convicted of a VTL 1192 offense within the 24-month period following the date their IID was uninstalled. As indicated in Table 3.4, 213 drivers in the Interlock Group were arrested and convicted of a VTL 1192 offense during the first 24 months after the IID was uninstalled, representing 5% of the 4,512 drivers in the Interlock Group. According to the DMV driver license file, four of the 213 drivers were involved in an alcohol-related crash after they had their IID uninstalled.

TABLE 3.4: INTERLOCK GROUP Driving History During 24-Month Period After IID was Uninstalled (N = 4,512)		
	#	%
Drivers with VTL 1192 Arrest & Conviction	213	4.7

For those drivers who had been arrested and convicted of a VTL 1192 violation within the 24-month period after the IID was uninstalled, a final set of analyses was conducted to examine in more detail how soon after the IID was uninstalled did the first subsequent arrest occur. As shown in Figure 3.3, and as would be expected, the proportion of drivers rearrested and convicted of a VTL 1192 violation increased steadily over the 24-month period after the IID was uninstalled. The rate of reconviction doubled

between the first three months and the first six months after the IID was uninstalled (0.7% vs. 1.3%). It doubled again between the first six months and the first 12 months (1.3 vs. 2.6%). The cumulative rate of reconviction for the 24-month period was 4.7%.

FIGURE 3.3: INTERLOCK GROUP
Drivers with VTL 1192 Arrest after IID Was Uninstalled
Rate of Reconviction



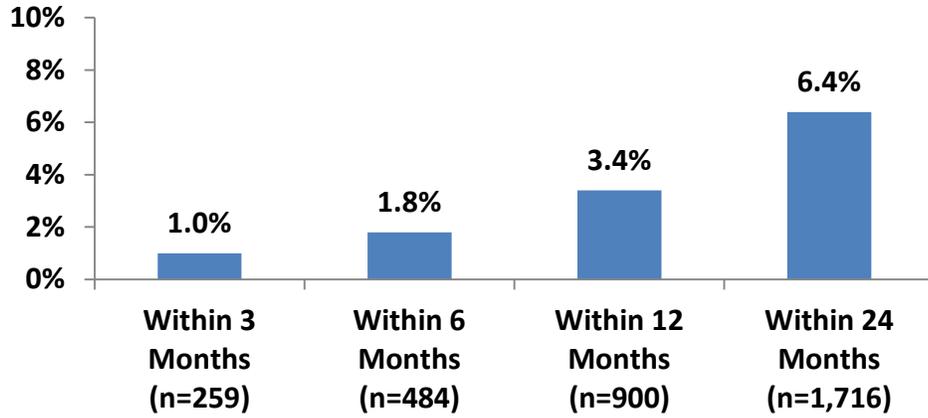
Comparison Group

The analyses of the driving histories with regard to subsequent impaired driving convictions for the Comparison Group focused on the first 24 months after their conviction that occurred during the one-year period of July 1, 2008 - June 30, 2009. As shown in Table 3.5, 6% (1,716) of the drivers in the Comparison Group were arrested and convicted of a VTL 1192 offense during that 24-month period. Further analyses of the driver license file data showed that 39 of the 26,689 drivers in the Comparison Group were involved in an alcohol-related crash during the 24-month period.

TABLE 3.5: COMPARISON GROUP		
Driving History Within the first 24 Months after the VTL 1192 Conviction that Occurred During One-Year period of July 1, 2008 – June 30, 2009 (N = 26,689)		
	#	%
Drivers with VTL 1192 Arrest & Conviction	1,716	6.4

Similar to the Interlock Group, for those drivers in the Comparison Group who had been arrested and convicted of a VTL 1192 violation within 24 months of their conviction that occurred between July 1, 2008 and June 30, 2009, additional analyses were conducted to determine how soon that first subsequent arrest occurred. Again, similar to the Interlock Group, the proportion of drivers rearrested and convicted of a VTL 1192 violation increased steadily over the 24-month period, with the rate almost doubling between the first three months and the first six months (1.0% vs. 1.8%), between the first six months and the first 12 months (1.8 vs. 3.4%) and between the first 12 months and the first 24 months (3.4% vs 6.4%). In sum, the cumulative rate of reconviction for the 24-month period was 6.4%.

FIGURE 3.4: COMPARISON GROUP
Drivers with VTL Arrest and Conviction after VTL 1192 Conviction
Between July 1, 2008 and June 30, 2012
Rate of Reconviction



CHAPTER FOUR: SUMMARY AND DISCUSSION

This chapter summarizes the results from the analyses conducted and discusses the implications of the findings. Since the primary objective of this study was to determine the effect of the expanded use of the ignition interlock sanction on the rate of reconviction, the study focused on the driving histories of motorists convicted of a misdemeanor or felony impaired driving violation (VTL 1192.2, 1192.2a or 1192.3) who were sentenced to an IID and had it installed. The driving records of these motorists were examined to determine the extent to which they were 1) reconvicted for impaired driving during the period of interlock installation and/or after the device was uninstalled and 2) involved in a subsequent alcohol-related crash. Specifically, if the convicted drivers who had an interlock installed were compared to a similar group of convicted drivers who did not have an interlock installed, it would be expected that the rate of reconviction for drinking and driving would be lower among the drivers who had an interlock installed than among the group that did not have an interlock installed. Hence, the study addressed the following key research question:

- ❖ Was the rate of reconviction for drunk driving among the drivers who had an IID installed lower than among a comparison group of drivers who did not have an IID installed?

INTERLOCK GROUP VERSUS COMPARISON GROUP

The results of the analyses to examine differences between the Interlock and Comparison Groups with regard to the demographic characteristics of age, gender and county are summarized in Table 4.1.

Driver Gender	Interlock Group (N=4,512)	Comparison Group (N = 26,689)
Men	71%	82%
Women	29%	18%
Driver Age		
16 – 20	3%	4%
21 – 29	29%	33%
30 – 39	22%	25%
40 – 49	24%	23%
50 – 59	17%	11%
60 +	5%	3%
County of Conviction (Top 4)		
Nassau	11%	8%
Monroe	10%	7%
Suffolk	8%	11%
Erie	7%	5%

Table 4.1 shows that the Interlock Group has a larger proportion of women than the Comparison Group (29% vs. 18%). While the distribution by driver age shows small differences between the two groups, the largest proportion of drivers in each group is in the 21-29 age group. Similarly, the four counties in each group with the highest number of drivers are the same: Erie, Monroe, Nassau and Suffolk.

The analyses conducted to examine the driving histories of the drivers in the Interlock and Comparison groups are summarized in Table 4.2. The table indicates that drivers in the Interlock Group were less likely to be reconvicted in the 24-month period after their IID was uninstalled than drivers in the Comparison Group who did not have an IID installed (4.7% vs. 6.4%). The difference between the 24-month cumulative reconviction rate of the Interlock Group (4.7%) and the Comparison Group (6.4%) translates into a lower rate of reconviction of approximately 27% among drivers with such convictions. According to the DMV driver license file, only a very small proportion (0.1%) of the drivers in either group was involved in an alcohol-related crash within the 24-month period.

TABLE 4.2				
Interlock Group Versus Comparison Group				
Rate of Reconviction for a VTL 1192 Offense and/or Crash Involvement				
	Interlock Group		Comparison Group	
	N = 4,512		N = 26,689	
Between Sentence Date & IID Install Date	14	0.3%	----	----
While on an IID	32	0.7%	----	----
Within 24 Months after IID Uninstalled (Interlock Group) or Conviction (Comparison Group)	213	4.7%	1,716	6.4%
Involvement in Alcohol-Related Crash within 24 Months after IID Uninstalled	4	0.1%	39	0.1%

IMPLICATIONS OF FINDINGS AND CONCLUSIONS

These findings indicate that extending the use of interlock devices to all drivers convicted of VTL 1192.2, 1192.2a and 1192.3 offenses, as mandated by Leandra’s Law, resulted in a lower cumulative rate of reconviction during the 24 months after an IID was uninstalled, compared to convicted drivers who did not have an IID installed. In considering the implications of these results, it is important to reiterate that it was necessary to use a convenience sample of drivers sentenced to an IID due to limitations in the availability of data on drivers who had an IID installed. It should also be reiterated that the IID installation rate was relatively low (29%) during the time period covered by this study. In addition, it is important to note that during this same time period, the minimum period of installation was six months; however, it was increased to a minimum of 12 months, effective November 1, 2013. While these factors, in addition to the use of a convenience sample, reinforce the need to interpret the results with caution, the findings should be of interest to the Governor’s Traffic Safety Committee (GTSC), the Office of Probation and Correctional Alternatives (OPCA), the Department of Motor Vehicles (DMV) and the state’s Advisory Council on Impaired Driving in their development and implementation of impaired driving countermeasures.

APPENDIX A

**Interlock Group and Comparison Group
County of Conviction**

County	Interlock Group		Comparison Group	
	#	%	#	%
Albany	172	3.8%	693	2.6%
Allegany	17	0.4%	132	0.5%
Bronx	59	1.3%	752	2.8%
Broome	72	1.6%	445	1.7%
Cattaraugus	49	1.1%	274	1.0%
Cayuga	35	0.8%	121	0.5%
Chautauqua	32	0.7%	325	1.2%
Chemung	64	1.4%	324	1.2%
Chenango	15	0.3%	81	0.3%
Clinton	70	1.6%	233	0.9%
Columbia	16	0.4%	154	0.6%
Cortland	26	0.6%	97	0.4%
Delaware	9	0.2%	92	0.3%
Dutchess	163	3.6%	651	2.4%
Erie	339	7.5%	1,406	5.3%
Essex	11	0.2%	125	0.5%
Franklin	9	0.2%	127	0.5%
Fulton	17	0.4%	122	0.5%
Genesee	72	1.6%	265	1.0%
Greene	9	0.2%	96	0.4%
Hamilton	0	0.0%	14	0.1%
Herkimer	22	0.5%	131	0.5%
Jefferson	40	0.9%	315	1.2%
Kings	34	0.8%	790	3.0%
Lewis	11	0.2%	55	0.2%
Livingston	85	1.9%	218	0.8%
Madison	19	0.4%	155	0.6%
Monroe	435	9.6%	1,775	6.7%
Montgomery	15	0.3%	88	0.3%
Nassau	490	10.9%	2,133	8.0%
New York	99	2.2%	619	2.3%
Niagara	66	1.5%	399	1.5%
Oneida	82	1.8%	538	2.0%
Onondaga	35	0.8%	590	2.2%
Ontario	110	2.4%	418	1.6%
Orange	167	3.7%	775	2.9%
Orleans	10	0.2%	72	0.3%
Oswego	31	0.7%	217	0.8%
Otsego	23	0.5%	134	0.5%
Putnam	26	0.6%	193	0.7%
Queens	144	3.2%	1,085	4.1%
Rensselaer	43	1.0%	159	0.6%
Richmond	51	1.1%	292	1.1%
Rockland	45	1.0%	297	1.1%
Saratoga	99	2.2%	457	1.7%
Schenectady	31	0.7%	199	0.7%
Schoharie	14	0.3%	79	0.3%
Schuyler	14	0.3%	76	0.3%
Seneca	33	0.7%	148	0.6%
St. Lawrence	26	0.6%	224	0.8%
Steuben	45	1.0%	276	1.0%
Suffolk	347	7.7%	2,955	11.1%
Sullivan	40	0.9%	205	0.8%
Tioga	29	0.6%	116	0.4%
Tompkins	71	1.6%	260	1.0%
Ulster	118	2.6%	457	1.7%
Warren	28	0.6%	234	0.9%
Washington	13	0.3%	115	0.4%
Wayne	81	1.8%	304	1.1%
Westchester	84	1.9%	1,222	4.6%
Wyoming	11	0.2%	92	0.3%
Yates	30	0.7%	70	0.3%
Unknown	59	1.3%	1,223	4.6%
TOTAL	4,512	100.0%	26,689	100.0%

