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Managing Driving After Suspension: Non-Highway Safety Suspended Drivers

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The objective of this study is to explore crash occurrences for drivers with suspension/revocation for non-highway safety reasons. Using a sample of suspended drivers in eight states, results indicate that as a group, non-highway safety suspended drivers' crash behavior differs from licensed drivers. Comparative analysis indicates heterogenic crash behavior when non-highway safety suspended drivers are placed into sub-groups based on the underlying reason for their suspension. The results provide information to managers, policymakers, and policing agencies regarding crash behavior for various groups of non-highway safety suspended drivers. The outcomes may indicate that differential managerial interventions such as graduated licensing after suspension are needed to address the role of sub-group variation.

INTRODUCTION

Traffic safety practitioners and researchers focus on the loss of the driving privilege, through suspension and/or revocation, as a profound consequence in terms of quality of life, independence, mental health, and the imposition of a financial burden on both the driver and society (Hakamies-Blomqvist, 2006; Government Accountability Office, 2010). These consequences may be evaluated rationally by both society and public sector managers, since exclusion from driving can lead to choosing an undesirable outcome (mobility loss) to prevent rare events—crashes. Traffic safety research concludes that attitudes and perceived behavioral control have substantial implications for the types of driving failures one commits, as a basis for non-compliance with rules and laws, and for a person's temporary state of psychological well-being (Groeger & Brown, 1989; Reason, 1990; McKenna, Stanier, & Lewis, 1991; Parker, West, Stradling, & Manstead, 1995; Parker, Lajunen, & Stradling, 1998; Verschuur & Hurts, 2008; Tseng, Chang, & Woo, 2013).

The psychological impact of exclusion from driving suggests that the roadway is a social situation in which people are interacting (Ross, 1960). Differing from traditional social situations, the roadway allows users to be anonymous, with interactions between drivers as brief and nonrecurring events. Communication is limited in content and is mediated by both mechanical aids, such as horns, and physical gestures with little verbal interaction due to the speed at which the social interaction occurs.

These conditions are favorable to social chaos; however, the roadway is a place of remarkable orderliness. Social control in this environment is maintained under the pretext of traffic laws and managerial sanctions (loss of driving privilege). To function, traffic laws must minimize conflict between vehicles using the roadway. To minimize conflict, driver responsibility is considered critical. The rules of responsibility, commonly identified as driving privileges, require drivers to possess a minimum level of competence in vehicle manipulation while understanding the laws regulating driving on a roadway. As an

example, a driver must be competent in acceleration and braking, but also must be competent in understanding the laws regulating the use and possession of a driver's license.

Of course, it is true that when a driver violates one of these laws the violation may not be a sufficient condition for punitive action in the form of citation or driving privilege removal (suspension). Moreover, the probability of a crash resulting from a given law violation is low. The implication of a low probability for both driver violations and crashes to receive punitive implications is a signal, to a driver and the public at large, that driver's license suspension is a serious punitive action for anti-social behaviors. As identified in the management literature, driving behaviors can be identified in similar context to workplace deviance, where individual action and behavior violate significant organizational norms and may be perceived as threatening the well-being of the organization or its individual members (Lawrence & Robinson, 2007). Thus, driving on a suspended license may be caused by provocations arising from perceived disparities between a current state and some ideal state, need, and desire that create frustration. This frustration motivates deviant behavior that is either instrumental (driving while suspended) or expressive in nature.

Managerially, suspension of a driver's license signals anti-social driving behavior. As such, driving while suspended is treated as a very serious offense in most states. This seriousness stems largely from a time when there was a direct relationship between license suspension and driving behavior. The reality today is that license suspension is widely used as a sanction for things other than highway safety (Carnegie & Eger, 2009). In fact, studies have found that suspensions for non-driving reasons are far more common than suspensions ordered to punish habitually bad drivers (Carnegie, 2007; Carnegie & Eger, 2009).

Prior research on suspended driver's license have focused on single-state analysis finding differential effects of driver behavior during the suspended time period (DeYoung, Peck, & Helander, 1997; Gebers & DeYoung, 2002; McCartt, Geary, & Nissen, 2002; McCartt, Geary, & Berning, 2003; DeYoung & Gebers, 2004). We add to this body of literature by exploring two types of recorded events, moving violation and crashes, after the driving suspension has occurred. We seek to understand if the managerial action of license suspension is congruent with the deviant (anti-social) behavior. Using data from eight states, we look at post-suspension driving behavior for two identified sub-groups, those suspended for highway safety reasons and those suspended for non-highway safety reasons. To define non-highway safety reasons, we use the descriptions found in the American Association of Motor Vehicle Administrators (AAMVA) Code Dictionary (ACD) Manual, Release 3.0.0, June 2008 (Effective November 3, 2008).

Our findings indicate that 27% of non-highway safety suspended drivers are cited after suspension. Comparing this to the universe of drivers during the time period, about 5.1% of all drivers are cited for a moving violation. When looking at crashes, 5.3% of non-highway safety suspended drivers are involved in a crash after suspension. Comparing this to licensed drivers, about 3.12% are involved in a crash. At this aggregate level, suspension of the non-highway safety groups appears to have the potential to increase highway safety through the suspension activity, although the original intent of the suspension was not highway safety. When considering sub-groups, differential affects are prevalent. Outcomes indicate that the sub-group suspended due to failure to maintain liability insurance has a crash rate of about 6.8%; that is, for this sub-group 68 out of every 1,000 drivers suspended for a lack of liability insurance are involved in a crash during their suspension period, a rate higher than licensed drivers during the time period. Contrasting the liability insurance sub-group's outcome, the sub-group of drivers suspended for child support non-payment has a crash rate of 7.8 per 1,000; that is, about 0.8% of those suspended for child support are involved in a crash while their driving privileges are suspended.

Similar to workplace deviant research as noted in Henle et al. (2005) and Robinson and Bennett (1995), the identification of differential deviant behavior and management's acceptance of the behavior provides a clarified signal to those involved in the inappropriate behavior. The variation found in crashes for non-highway safety suspended drivers provides some evidence that differential impacts based on sub-groups of non-highway safety suspended drivers may require differential treatment of the managerial sanction of license suspension.

STUDY DESIGN

To explore driver's license suspensions, a longitudinal quasi-experimental design is used. The sampling begins by defining the universe of potential state driver's licensing agencies, using the information and data provided in the National Highway and Safety Administration, U.S. Department of Transportation, Report Number DOT HS 811 092. This stratified random sample includes geographical diversity (at least two states were selected from each of AAMVA's four service regions), size diversity (sample states represent a range of jurisdictions in terms of size of licensed driver population), and suspended driver population (sample states have a large enough pool of suspended drivers to support valid sample selection). Table 1 shows the states and the AAMVA region associated with each state in the analysis.

TABLE 1
SAMPLED STATES BY AAMVA REGION

Region I	Region II	Region III	Region IV
New Jersey	Florida	Kansas	Colorado
Pennsylvania	Tennessee	South Dakota	Oregon

SAMPLING FRAME

Each state participating in this study provided data covering the five-year time period 2002–2006. The sample was obtained by randomly sampling 20,000 driver records from the universe of suspended drivers from each state. Each suspended driver was assigned a unique identification number as the basis of the sample. No other metric, such as demographic or socioeconomic status, was used to select the sample. Care was taken to assure that unique identification numbers were randomly assigned. Not all of the sampled records were useable due to errors in the drivers' identifier field. Distribution of the unusable data was consistent across all states with the exception of New Jersey, which had in excess of one-fifth of the errors (Carnegie & Eger, 2009). The final dataset included 114,626 unique suspended drivers' records across the eight states. Following the prior literature's methodology (DeYoung, Peck, & Helander, 1997; Gebers & DeYoung, 2002; DeYoung & Gebers, 2004; Carnegie & Eger, 2009), this study dichotomizes suspended drivers into highway safety related and non-highway safety related categories. To define highway safety related and non-highway safety related, this study uses the descriptions found in the AAMVA Code Dictionary (ACD) Manual, Release 3.0.0, June 2008 (Effective November 3, 2008). The ACD non-highway safety related categories can be broadly defined as categories that mandate the suspension of driving privileges for violations of law that have no relationship to an individual's ability to drive, their moving violation history, or any other factors related to the operation of a motor vehicle. The non-highway safety related group in this study is composed of 26,369 individual drivers that are identified with the beginning date of suspension, the end date of suspension, and the number of violations and crashes.

RECORDED EVENTS

With a focus on the non-highway safety suspended driver, table 2 shows the breakdown of this group of drivers and their post-suspension driving behavior. Methodologically, we treat non-highway safety suspended drivers identically to licensed drivers. We offer that a licensed driver is not violating any statute or law by driving her vehicle; however, the non-highway safety suspended driver is violating statute or law when she drives during the suspension period. Therefore, there are two simultaneous effects present with the non-highway safety suspended driver: the act of violation by driving a vehicle and then the act of being either involved in a crash or given a citation for violating a traffic law. We assume that suspended drivers not involved with either a crash or traffic citation are capable of driving a motor vehicle, although we are unable to identify the deviant action directly. Although this assumption overstates the hazard effect of post-suspension driving by ignoring the deterrence effect of not driving at

all while suspended, it allows for a conservative analysis since the entire pool of non-highway safety suspended drivers are considered to be driving.

Using moving violations and crashes as an indicator of the percentage coming in contact with the police through traffic offenses, the results show that about 32% of this group of suspended drivers comes into contact with the police in a traffic offense. When separating moving violations from crashes, about 5.3% are involved in a crash while suspended.

**TABLE 2
NON-HIGHWAY SAFETY SUSPENDED DRIVERS**

Driving Behavior	Total Suspended	Count of Drivers in Driving Behavior	Percentage
Moving Violation or Crash	26,369	8,504	32.2
Moving Violation	26,369	7,114	27.0
Crash	26,369	1,390	5.3

To put the outcomes presented in table 2 into perspective, according to data provided by the Bureau of Justice Statistics, U.S. Department of Justice (DOJ), 8.8% of licensed drivers in the United States have contact with the police during a traffic stop (Durose, Schmitt, & Langan, 2005; Durose, Smith, & Langan, 2007). Of those contacted, about 57.4% are cited for a traffic violation. Using the DOJ information, the outcome is that about 5.1% of licensed drivers are issued citations, or approximately 1 in every 20 licensed drivers. The outcome for non-highway safety suspended drivers indicates that about 1 in every 4 non-highway safety suspended drivers are cited by the police.

To compare licensed and non-highway safety suspended drivers' crash behaviors, table 3 provides data for licensed drivers involved in a crash. The data outcome found in table 3 is very similar to that found in the DOJ data where crash involvement is estimated at about 3.06% of licensed drivers (Durose, Schmitt, & Langan, 2005; Durose, Smith, & Langan, 2007). The results indicate that about 1 in every 33 licensed drivers is involved in a crash while 1 in every 20 non-highway safety suspended drivers is involved in a crash. The outcomes presented indicate that non-highway safety suspended drivers differ from licensed drivers.

**TABLE 3
ESTIMATED NATIONAL CRASHES AND LICENSED DRIVERS**

Year	Fatal	Injury	Property Damage Only	Total Crashes	Total Licensed Drivers	Percentage of Licensed Drivers in Crashes
2002	38,491	1,929,000	4,348,000	6,315,491	194,295,633	3.25%
2003	38,477	1,925,000	4,365,000	6,328,477	196,165,666	3.23%
2004	38,444	1,862,000	4,281,000	6,181,444	198,888,912	3.11%
2005	39,252	1,816,000	4,304,000	6,159,252	200,548,922	3.07%
<u>2006</u>	<u>38,588</u>	<u>1,746,000</u>	<u>4,189,000</u>	<u>5,973,588</u>	<u>202,810,438</u>	<u>2.95%</u>
Total	193,252	9,278,000	21,487,000	30,958,252	992,709,571	3.12%

Data Source: Crash data from DOT HS 810 819, January 2008; Driver's License Data from Federal Highway Administration, Highway Statistics, Table DL1C, for each year.

NON-HIGHWAY SUSPENDED DRIVER CATEGORIES

In aggregate, the data suggest that non-highway safety suspended drivers are not similar to licensed drivers, indicating that suspension based on non-highway safety reasons may provide enhanced highway safety. To explore the underpinning of the aggregate outcomes, we subdivide the data into sub-groups of non-highway safety suspended drivers. This follows prior literature in management where deviant workplace behaviors may be divided into sub-groups such as those identified in Robinson and Bennett's

(1995) typology that identified four sub-groups: those identified in production deviance, property deviance, political deviance, and personal deviance. Both property and personal deviance are considered serious, while production and political deviance are considered minor in this literature (Robinson & Bennett, 1995).

Table 4 presents the three major ACD codes represented for non-highway safety suspended drivers involved in a crash. The first major sub-group of violators is identified as drivers suspended for failure to maintain liability insurance. This sub-group has underpinned traffic safety research in which financial burden and income ability has been discussed. Much of the research and public policy has indicated that maintenance of liability insurance is a financial issue, not a highway safety issue, with an emphasis on the ability to afford insurance under a limited income stream (Cole, Dumm, & McCullough, 2001; Carnegie, 2007). In contrast, research indicating that the uninsured driver has a higher violation and crash rate than insured drivers (Kuan & Peck, 1981; Marowitz, 1990) would lead to the conclusion that failure to maintain liability insurance is a traffic safety issue not a financial concern. Although compulsory insurance and the privilege to drive debate continues, the data presented in table 4 supports the concept that suspensions due to failure to maintain liability insurance (D36) may be a highway safety issue. Our analysis indicates that about 7% of those drivers suspended for insurance reasons are involved in a crash during their suspension period. This rate is notably higher than the rate for licensed drivers.

TABLE 4
NON-HIGHWAY SAFETY SUSPENDED DRIVERS—CRASH ONLY (N=1,390)

ACD Code	Description	Percentage
D36	Failure to maintain liability insurance	6.78
W00	Non-ACD violation	2.12
D51	Failure to make required payment of child support	0.78

When looking at the second major group, ACD code W00, this sub-group includes court-ordered suspensions not driving related: non-compliance with school attendance (truancy), theft, and possession of tobacco by a minor. The results for this subgroup show that about 2% of this sub-group of suspended drivers is involved in a crash while their license is suspended. The final major ACD code sub-group, D51, consists of drivers whose license was suspended for failure to provide child support. This sub-group has a crash rate of about 1 per 1,000, indicating that about 1% of the suspended drivers in this sub-group are involved in a crash during the suspension of their driver's license.

DISCUSSION

Motor vehicle managers, law enforcement, and the courts view suspended drivers as individuals who pose a significant traffic safety risk when they continue to drive. Within the group of suspended drivers, two major groups have been identified in the traffic safety literature: those suspended for highway safety reasons and those suspended for non-highway safety reasons.

We have explored the major aggregate grouping of non-highway safety suspended drivers. Our results provide an interesting set of outcomes. If non-highway safety suspended drivers are treated as equal regardless of the underlying reason for suspension, non-highway safety suspended drivers' behavior differs from licensed drivers across the time period of our data. Our results indicate that non-highway safety suspended drivers have a higher crash rate in addition to driving while their license is suspended. This initial outcome supports motor vehicle administrators, law enforcement and the court's assumption that all suspended drivers pose a significant traffic safety risk when they continue to drive. The management and administrative intervention here is to follow the prior focus on improving education and information so that policies are equally applied to all suspended drivers, given that they all pose a potential highway safety risk greater than the licensed driver.

Our results, however, contradict this equality assumption of all suspended drivers. Although the initial results seem to point toward the outcome that all suspensions are equal, when non-highway safety

suspensions are broken down into major sub-groupings, post-suspension driving behavior of sub-groups is markedly different.

The sub-group assessment would indicate that only one sub-group, suspended for failure to maintain liability insurance, poses a highway safety risk larger than the comparable licensed driver. In our sub-group assessment, the management intervention would be to include drivers suspended for failure to maintain liability insurance as highway safety-related drivers. This managerial action could lead to a differentiation between suspended drivers, clarifying the role of highway safety associated with suspending a driver's privilege to operate a motor vehicle. Additionally, similar to graduated license programs, alternative managerial actions can be assessed. This allows management the opportunity to address evaluative information regarding suspended drivers, basing the actions on highway safety implications, thereby increasing information for policymakers, administrators, and law enforcement officials. This would be congruent with the choices presented in the *2013 Best Practices Guide to Reducing Suspended Drivers* by the AAMVA Suspended & Revoked Working Group.

Managerial intervention that assesses post-suspension driving behavior needs further expansion. Taking a step back, most of the research underpinning driving suspensions due to driving behavior (highway safety suspensions) has empirical and policy grounding, with new studies exploring the effects by sampling at a nationally representative level (Carnegie & Eger, 2009). The non-highway safety suspensions group of drivers has been virtually ignored in highway safety research and management (Government Accountability Office, 2010). Our results indicate that there may be heterogeneity within the grouping of non-highway safety suspended drivers and that a keen policy focus could impact this group of suspended drivers with potential changes in their behavior after suspension. Currently, the AAMVA Suspended & Revoked Drivers Working Group has explored some of these policy options. We recommend that safety groups, public policymakers and managers follow some of the previous and current assessments addressing what the Government Accountability Office (GAO) identifies as a lack of understanding in this group of suspended drivers. A lack of managerial action, as GAO argues, has the very real potential of leading to poor policy choice or, at least, uninformed policy choice (Government Accountability Office, 2010).

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