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First-time DWI offenders are at risk of recidivating regardless of sanctions imposed

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Abstract

Objective—Research demonstrates that punitive approaches to DWI employed by the judiciary have failed to significantly reduce recidivism. However, little is known about the deterrent effects of administrative and diversion sanctions. We examine whether such sanctions deter first-time DWI offenders.

Methods—We grouped combinations of administrative, judicial, and diversion sanctions routinely employed in the state of Maryland for processing drivers arrested for DWI into one of eight mutually exclusive disposition sequences. We applied this classification to Maryland drivers who had been licensed in the state and had precisely one DWI on their record prior to January 1, 1999. We then used a proportional hazards model to estimate the probability of remaining free of a new DWI during a 6-year period (January 1, 1999 – December 31, 2004) as a function of the disposition of the index violation, and of selected factors that could affect that probability.

Results—Drivers with a prior DWI were at relatively high risk of recidivating regardless of how they were sanctioned. Those who received administrative and alternative sanctions had a risk of recidivating similar to that of drivers who were convicted.

Conclusion—All dispositions sequences, not just convictions, indicate that first-time DWI offenders are at high risk of recidivating.

Keywords

DWI; alcohol; recidivism; first offenders; arrest

In 2008 there were about 1.48 million arrests for driving under the influence of alcohol (Federal Bureau of Investigation, 2009).¹ Two mechanisms exist for sanctioning these DWI² offenders: administrative penalties through a state Motor Vehicle Administration (MVA) or Department of Motor Vehicles (DMV) and criminal sanctions through the judiciary.

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¹FBI data cover approximately 97 percent of the population.

²The abbreviation DWI is used throughout this article to denote any instance of alcohol-impaired driving (e.g., driving while under the influence of alcohol, driving under the influence of alcohol per se, or driving while impaired by alcohol).

Administrative penalties are generally the initial procedures used to sanction alcohol-impaired drivers and hold them accountable for failing or refusing a breath alcohol test. Administrative statutes expedite license sanctions for alcohol-related traffic violations, thereby promoting swiftness of sanctions, an essential element of deterrence theory (Beccaria, 1764/1963). Instead of waiting for courts to schedule a case, hear it, and consider criminal charges against alcohol-impaired drivers, a process that can take years, administrative per se regulations allow for the immediate suspension or revocation of a driver's license in the interest of public safety (McArthur & Kraus, 1999; Wagenaar & Maldonado-Molina, 2007).

In addition to administrative processing and sanctioning, drivers may face criminal charges through the judicial system. At roadside, law enforcement officials may criminally charge drivers with violating a variety of alcohol-impaired driving laws (e.g., driving while intoxicated or driving under the influence). These drivers may then be prosecuted criminally which may lead to dismissal, conviction, or a diversion program (e.g., probation).

As of 2006, thirty-three states had explicit laws authorizing the use of diversion programs for DWI offenders (National Highway Traffic Safety Administration, 2009). Probation is the most prevalent form of sentencing in the United States for crimes in general (Bureau of Justice Statistics, 1997), and at the end of 2008, 13.6 percent³ (N=308,258) of adults granted probation for various crimes were placed on probation as a result of driving while intoxicated or under the influence of alcohol (Bureau of Justice Statistics, 2009).

The state of Maryland uses all three mechanisms to sanction DWI offenders. An alcohol-related traffic violation may result in administrative penalties, criminal penalties, and under certain conditions, an offender may be placed on probation before judgment (PBJ) following a conviction or a plea of nolo contendere.

Administrative sanctions in Maryland are handled by the MVA. Administrative per se at .10g/dL BAC became law in Maryland on January 1, 1990, and the limit was reduced to .08g/dL BAC on October 1, 2001. Drivers who fail the breath test in Maryland have their licenses suspended immediately (45 days for a first offense and 90 days for a second or subsequent offense). Those who refuse the breath test also have their licenses suspended immediately (120 days for a first offense and one year for a second or subsequent offense). Drivers who fail or refuse the breath test may request an administrative hearing and at this time, the Administrative Law Judge may dismiss the license suspension if the driver enrolls in the ignition interlock license restriction program for at least one year.

Criminal sanctions for DWI in Maryland are handled by the judiciary. Drivers criminally charged with an alcohol-related traffic offense may be prosecuted for driving while under the influence of alcohol, driving under the influence of alcohol per se, or driving while impaired by alcohol. Criminal penalties for alcohol-impaired driving in Maryland include fines, jail, and community service (Zwicker, Hedlund, & Northrup, 2005). In addition, drivers may be further sanctioned administratively by the MVA for criminal convictions resulting from DWI. Drivers criminally charged with DWI may receive the same administrative penalties used for failing or refusing the breath alcohol test (i.e., license suspension, license revocation, or an ignition interlock license restriction).

Maryland's diversion program for alcohol-impaired drivers (i.e., PBJ) allows a driver to plead guilty or nolo contendere, or to be found guilty in a criminal proceeding but have judgment stayed pending completion of a probationary period. Conditions of probation may

³A total of 4,270,917 adults were on probation in 2008 and offense type was known for 2,263,614 (Bureau of Justice Statistics, 2009).

include participation in treatment, an alcohol education program, self-help groups (e.g., Alcoholics Anonymous), and/or the ignition interlock license restriction program. Drivers who violate the terms of probation (including having another alcohol-related offense) may have the original charge reinstated and be further prosecuted for violating probation.

Scholars have examined which types of sanctions are more likely to reduce recidivism and have found that punitive approaches such as conviction or jail do not significantly deter future incidents of DWI (Taxman & Piquero, 1998; Wheeler & Hissong, 1988; Yu, 2000). Consistent with deterrence theory (Beccaria, 1764/1963), swift license sanctions such as suspension and revocation have been shown to reduce DWI recidivism (Ross, 1991; Yu, 1994; but see Yu, 2000), and less punitive, treatment-based sanctions can also reduce recidivism among drivers with an alcohol disorder (Taxman & Piquero, 1998) and those with a prior offense (Pratt, Holsinger, & Latessa, 2000; Taxman & Piquero, 1998; Yu, 2000; but see Bouffard, Richardson, & Franklin, 2010; MacDonald, Morral, Raymond, & Eibner, 2007). Yet, two questions remain largely unexplored – whether DWI offenders have differential recidivism rates based on how their case is processed through the criminal justice and administrative systems and whether the disposition sequence of their sanctions affects recidivism.

Current Research

In processing and sentencing DWI offenders, Maryland, like other states, distinguishes among drivers in terms of their number of prior alcohol-related traffic violations (priors). Offenders with no history of prior violations are termed “first offenders”. Throughout the United States, first offenders are often viewed by the state legislative and judicial branches of government as social drinkers who have only driven alcohol-impaired once (and been caught). This belief is contrary to published empirical estimates that a driver can drive alcohol-impaired 200 to 2,000 times before being arrested even once for DWI (Anda, Remington, & Williamson, 1986; Beitel, Sharp, & Glauz, 1975; Borkenstein, 1974; Hingson, 1995; Voas & Hause, 1987). Moreover, some arrested and/or convicted drivers manage to have their records completely expunged under certain conditions, and many state MVA offices routinely purge driving records after a set number of years. Therefore, it is reasonable to assume that the typical so-called *first offender* will have had an extensive history of alcohol-impaired driving by the time his or her violation is recorded in MVA’s record system.

The perceived leniency with which state legislative and judicial systems handle so-called first offenders, the low probability of arrest for alcohol-impaired driving, and the practice of expunging and/or purging driver records warrants a closer look at the sanctions DWI offenders receive, the sequence of these administrative, criminal, and probationary sanctions, and the impact this “disposition sequence” may have on reducing future alcohol-impaired driving. This study examines recidivism among first-time DWI offenders in Maryland who have been processed by the criminal and/or administrative systems, and compares their recidivism to first offenses among drivers who had no previous alcohol-related traffic violations.

Methods

To gain a better understanding of the effects of disposition sequence and a prior alcohol-related violation on subsequent drinking and driving behavior, we considered all possible combinations of administrative, criminal, and/or diversion (PBJ) sanctions through which a DWI offense can be channeled. A disposition sequence is the chronological occurrence of administrative, judicial, and/or diversion sanctions. Depending on how an offender is

apprehended and processed through the administrative and criminal systems, there are eight possible disposition sequences in Maryland (Table 1).

All data were provided by the Maryland MVA after confidentiality was guaranteed. The focal time period for new violations was the six-year period from January 1, 1999 through December 31, 2004. The number of drivers in Maryland increased during this time period from about 3.3 million drivers in 1999 to about 4.0 million drivers in 2004. Drivers who had moved from the state were excluded. Records were also removed if the license had expired at least 6 months before December 31, 2004.

Drivers were categorized as first offenders if they had a single DWI violation between 1973⁴ and 1999 or as non-offenders if they did not have any recorded DWI during this time period. For many first offenders, multiple APS, conviction, and PBJ records were found for the same date of a DWI, and these duplicates were removed from the database. We then consolidated all dispositions associated with the same violation date into one of the eight mutually exclusive disposition sequences. Drivers without a DWI were placed in the control group. More than 100 million driver records from 1973 to 2004 were screened for evidence of DWI violations, and about 22 million driver records for the study period 1999–2004 were extracted.

The current research is based on a May 21, 2006 extract from the Maryland driver record database. It can take 18 months or more for cases to work their way through the administrative and judicial systems and reach a final adjudication (Rauch, Zador, Ahlin, Duncan, & Joyce, 2005). The advantage of limiting violations to those that occurred prior to 2005 instead of extending the study period to match available data is that virtually all offenses would have been processed, adjudicated, and reached a final disposition by the date of the extract.

Analytic Strategy

We used proportional hazards models (Kalbfleisch & Prentice, 1980; SAS Institute, 1996) to estimate the probability that drivers in the study pool remained free of a subsequent DWI during the study period. We measured each driver's survival time in days from January 1, 1999 until the driver's second violation (for first offenders) or first violation (for drivers in the control group). Survival was measured without replacement; drivers with a violation during the study period were censored at the date of that violation. Drivers without a violation during the study period were censored at the end of the study period or date of death, whichever came first. Analyses were stratified on driver age.

Predictor variables in the model included gender (male) and the number of days since the initial date of the driver's inclusion in the risk set. As noted earlier, we identified eight mutually exclusive disposition sequences, and for each first offender, we determined the one that was applicable. The disposition sequence was then entered into the proportional hazards models as a set of eight covariates of which the covariate associated with the actual disposition was set to the value of 1, and the remaining seven set to 0. For drivers with no-priors, all eight covariates were set to 0.

⁴Conviction counts in the database before 1973 were small, possibly due to administrative and/or procedural reasons; so disregarding alcohol-related violations prior to 1973 (26 or more years before the start of the study period) was unlikely to affect any of the estimates.

Results

Table 2 displays by year the count of drivers with one prior DWI by the disposition sequence of that prior violation.⁵ Among the 194,671 Maryland drivers in 2004 who had one prior, 63,723 (33 percent) had initially failed an administrative per se (APS) breath alcohol test, 37,764 (19 percent) had refused an APS breath alcohol test, and 93,184 (48 percent) had been convicted with no prior APS involvement. As the final disposition, 11,217 (6 percent) and 10,283 (5 percent) drivers, respectively, failed or refused the breath alcohol test but were handled only through APS procedures and were not convicted, 62,351 (32 percent) were convicted without PBJ, and 110,820 (57 percent) drivers were convicted but received PBJ.

Table 3 displays by year the number of new DWIs by drivers with one prior violation, classified by the disposition sequence of that previous violation. Among the 4,306 arrests of drivers having their second offense in 2004 that resulted in a disposition, 2,126 had previously failed an APS breath alcohol test, 844 had previously refused an APS breath alcohol test, and 1,336 had been convicted with no previous APS involvement. As the final disposition of their previous violation, 360 (8 percent) had only been treated administratively, without a conviction, for failing the APS breath alcohol test, 219 (5 percent) had only been treated administratively for refusing the breath test, 954 (22 percent) had previously been convicted without a PBJ, and 2,773 (64 percent) had previously been convicted with a PBJ.⁶

In Table 4, we compare for each year the recidivism rates of those drivers who had one DWI classified by the initial and final disposition of that previous violation. The annual recidivism rate, which averaged .024 violations per driver during the period 1999–2004, varied over time and by the initial and final disposition of the earlier violation. The recidivism rate decreased over time from .028 in 1999 to .022 in 2004, and this downward trend was true for each of the VDCs. No adjustments for age and gender were made for the rates appearing in Table 4.

In 2004, the most recent year, the recidivism rate for DWIs varied in terms of the driver's final disposition of his or her previous violation as follows. The recidivism rate was .032 among drivers who initially failed an APS breath alcohol test but were not convicted, .021 among drivers who refused the breath alcohol test but were not convicted, .015 among drivers who were convicted and did not receive a diversion program (PBJ), and .025 among drivers who were convicted but did receive a PBJ as the final disposition.

These results appear to indicate that conviction without PBJ is a strong deterrent against future recidivism. However, the picture is more complicated because the final violation dispositions and their effects on recidivism also depend on the initial step of the disposition sequence. Among drivers who initially failed the APS breath alcohol test, those who were convicted without PBJ had the highest of all recidivism rates for 2004 (.040), compared to those who had not been convicted (.032) and those who were convicted with PBJ (.033). Among drivers who initially refused the breath test, those convicted without a PBJ had a recidivism rate of .017 violations per driver in 2004 compared to those who were not convicted (.021) and those convicted with a subsequent PBJ (.027). Among drivers with no APS involvement, those convicted without PBJ had the lowest of all the recidivism rates for 2004 (.011), and those convicted with a subsequent PBJ had a somewhat higher rate (.017).

⁵Drivers appearing in the count for 1999 also appear in the count for subsequent years; they are not mutually exclusive. The count for 1999 represents the number of drivers with one prior DWI between 1973 and 1999 by disposition sequence, and new first offenders are added to one of the eight disposition sequences each year.

⁶Percentages do not add to 100 due to rounding.

Table 5 displays the estimated hazard ratios for recidivism among drivers with one prior DWI relative to drivers with no prior DWI, classified by the disposition sequence of the first offense. These hazard ratios ranged from 6.52 for breath test failure without conviction or PBJ to 9.89 for breath test refusal plus conviction without PBJ. Even the lowest 95% CI for any of the eight estimates was 6.07. Therefore, having even one prior DWI substantially and significantly increased the risk of a subsequent DWI regardless of how the previous violation was processed and disposed of -- administratively, judicially, or through a diversion program (i.e., PBJ).

Figure 1 displays by year the probability of remaining free of a subsequent DWI for drivers with no such prior violation and for drivers with one such prior, differentiated by the disposition sequence of that previous offense. Compared to drivers with no priors, those with one prior have much steeper closely clustered declines in survival probabilities over the 6-year period, regardless of the disposition sequence of their previous violation. At the end of six years, the violation-free survival rates varied from approximately 78 percent for drivers whose prior violation resulted in a final disposition of breath test failure without conviction to approximately 67 percent for those whose prior violation resulted in a disposition of breath test refusal with conviction. Meanwhile, drivers with no prior DWI showed a survival rate of 96 percent at the end of six years. These survival curves were estimated for 35 year-old male drivers. However, the overall pattern of the survival probability curves is similar for other age groups, and for female drivers (figures not shown).

Figure 2 displays for each year the relative risk of a new DWI among drivers with one such violation, compared to similar risks among drivers who had no priors, distinguished by the disposition sequence of the first violation. These results support the patterns identified in Table 5 and Figure 1 in showing that first offenders whose dispositions of that first violation involved breath test refusal with conviction had the highest relative risk of recidivism during the study period, whereas those whose disposition involved a breath test failure without conviction had the lowest relative risk. Over time, risk of a new DWI offense decreased for all disposition sequences (see Kurlychek, Brame, & Bushway, 2006).

Discussion

Our findings indicate that prior DWI behavior is a useful predictor of future DWI behavior. This is consistent with extant criminological research which demonstrates the predictive utility of past offenses when determining future risk of offending (e.g., Gottfredson & Hirschi, 1990; Nagin & Paternoster, 1991; Paternoster, Dean, Piquero, Mazerolle, & Brame, 1997; Robins, 1966; Sampson & Laub, 1993; Wilson & Herrnstein, 1985; Wolfgang, Figlio, & Sellin, 1972). What is novel about our findings is that all offenders with a prior DWI arrest are at a relatively high risk of recidivating, regardless of the type of sanction (administrative, conviction, or PBJ), or combination of sanctions, they receive. This suggests that the deterrent effects of both lenient sanctions (i.e., administrative, PBJ) and harsher sanctions (i.e., conviction) are low.

Theoretically, DWI offenders are sanctioned in terms of their likelihood of recidivism as perceived by those in authority. Offenders whose violations are disposed of without binding convictions (e.g., through APS failure or APS refusal alone or through PBJ) are traditionally believed to pose less risk for recidivism and future criminal involvement (see also Taxman & Piquero, 1998; Yu, 2000). Accordingly, they are frequently sentenced to rehabilitative sanctions such as probation (Yu, 2000). However, the results of this study suggest that regardless of how first-time DWI offenders are sanctioned, as groups they are at substantial risk of recidivating.

Limitations and Future Directions

Given these findings, what can be done to reduce recidivism among this population? Various reasons proposed to explain the high rates of recidivism among DWI offenders also suggest mechanisms for reducing this behavior. A frequent explanation is that these drivers are problem drinkers who either abuse or are dependent on alcohol and are in need of treatment (Taxman & Piquero, 1998), in conjunction with sanctions, before they can be expected to refrain from driving while impaired by alcohol (Yu, Evans, & Clark, 2006). Perrine (1990) contends that most first offenders are problem drinkers who are similar to multiple offenders but have not yet been caught for a second DWI.

Because a sizable proportion of first-time offenders may meet criteria for alcohol abuse or dependence (Cavaola, Strohmetz, Wolf, & Lavender, 2003; Fine, Scoles, & Mulligan, 1975; Kramer, 1986; Lapham, C'de Baca, McMillan, & Lapidus, 2006; Perrine, 1990), one potential mechanism for reducing recidivism among first DWI offenders is to assess problem drinking behaviors by using effective screening scales and/or clinical evaluations (see Chang, Gregory, & Lapham, 2002). The results of these evaluations can then guide the length and intensity of sanctions and treatment based on offender needs and risk (see Andrews & Bonta, 2003; National Highway Traffic Safety Administration & National Institute on Alcohol Abuse and Alcoholism, 2006).

Evidence-based technological sanctions such as ignition interlocks could supplement current sentencing practices and treatment as a means of reducing recidivism among DWI offenders. Ignition interlocks prevent a driver from operating a vehicle while impaired by alcohol, thereby limiting a driver's ability to commit the offense. Research indicates that ignition interlock license restrictions reduce recidivism among multiple DWI offenders (Beck, Rauch, Baker, & Williams, 1999; Rauch, Ahlin, Zador, Howard, & Duncan, 2011), and the National Highway Traffic Safety Administration is currently investigating the utility of statutes and laws mandating ignition interlocks for first-time DWI offenders.

Research shows that alcohol abuse and dependence problems may increase the risk of recidivism (Yu, 2000; Yu & Williford, 1993). Unfortunately, we did not have access to data on alcohol abuse and dependence among the first offenders in our study. Nor do we know whether sanctions for their initial arrest included alcohol-focused treatment, which has been shown to reduce recidivism among DWI offenders by 7 to 9 percent averaged across all offender and treatment types (National Highway Traffic Safety Administration & National Institute on Alcohol Abuse and Alcoholism, 2006; Wells-Parker, Bangert-Drowns, McMillen, & Williams, 1995). Greater or lesser involvement in treatment may explain some of the differences in recidivism among the drivers in the eight disposition sequences. However, our sample of first offenders were at relatively high risk of recidivism both independently and compared to drivers who had no recorded arrest for DWI at baseline, regardless of how the violations of the first offenders were disposed of by Maryland's administrative, judicial, and diversion systems.

Another limitation of our study is that we examined only official indices of alcohol-impaired driving and recidivism that do not take into account DWI events that go undetected by law enforcement. As noted, empirical studies indicate that a driver may drive alcohol-impaired many times before being arrested even once. Even if the Judge has access to the offender's complete official history of alcohol-impaired driving, it is clear that criminal and administrative records do not adequately account for all instances of DWI and that such behavior is underestimated. This prevented our ability to determine whether the DWI offenders who did not have another DWI had in fact desisted (see Bushway, Piquero, Broidy, Cauffman, & Mazerolle, 2001).

Self-reported alcohol-impaired driving by the offender could provide the historical information necessary to make a more informed decision about the type of sanction that should be imposed. However, analyses using self-reports of alcohol-impaired driving can be less reliable than conviction data (Yu, 2000). Perhaps, a combination of official data and self-reports could provide a more complete history of criminal behavior (see Yu & Williford, 1993).

Conclusion

Close to 3 million people have died and approximately 100 million have been injured on roadways in the United States over the past 100 years, and a significant proportion of these fatalities and injuries involved alcohol (Sleet, Dinh-Zarr, & Dellinger, 2007). Results from this study showed that first-time DWI offenders have a high risk of recidivism, regardless of how they are processed through the criminal justice and administrative systems. Yet, appreciating that first offenders are at high risk of having a subsequent DWI is only a first step toward reducing that risk. Current procedures for handling offenders and the sanctions imposed for violating alcohol-impaired driving laws certainly deter some offenders from recidivating, but a significant problem remains.

A broad, all-inclusive definition of DWI may be more appropriate than focusing mainly on DWI convictions. Furthermore, additional strategies such as treatment and evidence-based technologies should be explored as a supplement to the weak deterrent effect of traditional administrative, judicial, and probation sentencing systems used for first-time DWI offenders. Assuming that the primary objective is to reduce recidivism, deterrence as a means to increase self-control may not be an appropriate goal for either first or multiple offenders. It has been suggested that “the focus of sentencing should shift from deterrence to incapacitation or separation of the offender from the vehicle” and that combinations of sanctions are more effective than any single sanction (National Highway Traffic Safety Administration & National Institute on Alcohol Abuse and Alcoholism, 2006, p. i; see also Jones & Lacey, 2000). Therefore, rehabilitation through treatment and incapacitating a driver’s ability to drive after drinking through the use of an ignition interlock may be more realistic approaches to reducing recidivism among first-time DWI offenders.

As a condition of relicensure in Maryland, drivers may be required to enroll in treatment or alcohol-education programs or to participate in the ignition interlock license restriction program. However, the dataset provided by the MVA did not include data on these types of requirements for the drivers examined in this study. Nor did it include information on the specific penalties imposed such as fines, jail, and community service.

To more fully understand how dispositions of prior DWI violations impact rates of recidivism and violation-free survival, it will be necessary to identify and analyze the full range of sanctions and penalties imposed and their interactions. Such research would help unravel the effects of the specific VDCs we have identified and the remedies recommended by proponents of traffic safety.

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Figure 1.
Survival analysis by year for drivers with no or one prior DWI violation by disposition
sequence of that prior violation

Figure 2.
Risk of a new DWI by year among drivers with one prior violation relative to drivers with no prior DWI, by disposition sequence of the prior violation

Table 1

Disposition sequences for DWI offenses in Maryland

Disposition sequence	Definition
APS failure	Breath alcohol test $\geq .08/.10$, not convicted
APS failure, conviction	Breath alcohol test $\geq .08/.10$, convicted
APS failure, conviction, PBJ	Breath alcohol test $\geq .08/.10$, convicted, received PBJ
APS refusal	Refused breath alcohol test, not convicted
APS refusal, conviction	Refused breath alcohol test, convicted
APS refusal, conviction, PBJ	Refused breath alcohol test, convicted, received PBJ
DWI conviction	Breath alcohol test not administered, convicted
DWI conviction, PBJ	Breath alcohol test not administered, convicted, received PBJ

Note. The administrative per se (APS) alcohol level in Maryland was reduced from .10g/dL to .08g/dL on October 1, 2001

Table 2

Number of drivers with one prior DWI by disposition sequence by year

Disposition sequence		Year							
Initial	Final	1999	2000	2001	2002	2003	2004	All	
APS failure	APS failure	7,367	8,057	8,810	9,594	10,377	11,217	55,422	
	Conviction	5,711	5,969	6,223	6,608	6,963	7,335	38,809	
	PBJ	28,361	31,492	34,469	37,835	41,281	45,171	218,609	
	All	41,439	45,518	49,502	54,037	58,621	63,723	312,840	
APS refusal	APS refusal	7,758	8,216	8,742	9,280	9,751	10,283	54,030	
	Conviction	10,571	10,673	10,778	10,919	11,051	11,191	65,183	
	PBJ	12,011	12,806	13,633	14,435	15,318	16,290	84,493	
	All	30,340	31,695	33,153	34,634	36,120	37,764	203,706	
Conviction	Conviction	42,582	42,851	43,086	43,263	43,492	43,825	259,099	
	PBJ	45,405	46,375	47,408	48,133	48,734	49,359	285,414	
	All	87,987	89,226	90,494	91,396	92,226	93,184	544,513	
All	APS failure	7,367	8,057	8,810	9,594	10,377	11,217	55,422	
	APS refusal	7,758	8,216	8,742	9,280	9,751	10,283	54,030	
	Conviction	58,864	59,493	60,087	60,790	61,506	62,351	363,091	
	PBJ	85,777	90,673	95,510	100,403	105,333	110,820	588,516	
	All	159,766	166,439	173,149	180,067	186,967	194,671	1,061,059	

Note. Disposition sequence displayed is for the prior DWI offense. The "All" column represents the sum of the number of drivers at risk for a new DWI in each of the six years.

Table 3
Number of new DWIs for drivers with one prior DWI by disposition sequence by year

Disposition sequence		Year						
Initial	Final	1999	2000	2001	2002	2003	2004	All
APS failure	APS failure	301	299	307	327	350	360	1,944
	Conviction	321	291	276	278	277	291	1,734
	PBJ	1,204	1,267	1,193	1,304	1,393	1,475	7,836
	All	1,826	1,857	1,776	1,909	2,020	2,126	11,514
APS refusal	APS refusal	199	171	187	227	196	219	1,199
	Conviction	227	212	188	172	172	188	1,159
	PBJ	375	385	381	356	371	437	2,305
	All	801	768	756	755	739	844	4,663
Conviction	Conviction	777	742	654	615	510	475	3,773
	PBJ	1,075	1,074	954	966	898	861	5,828
	All	1,852	1,816	1,608	1,581	1,408	1,336	9,601
All	APS failure	301	299	307	327	350	360	1,944
	APS refusal	199	171	187	227	196	219	1,199
	Conviction	1,325	1,245	1,118	1,065	959	954	6,666
	PBJ	2,654	2,726	2,528	2,626	2,662	2,773	15,969
	All	4,479	4,441	4,140	4,245	4,167	4,306	25,778

Note. Disposition sequence displayed is for the prior DWI offense

Table 4

Rate of recidivism by year for drivers with one prior DWI by initial and final disposition of the first offense

Disposition sequence		Year						
Initial	Final	1999	2000	2001	2002	2003	2004	All
APS failure	APS failure	.041	.037	.035	.034	.034	.032	.035
	Conviction	.056	.049	.044	.042	.040	.040	.045
	PBJ	.042	.040	.035	.034	.034	.033	.036
	All	.044	.041	.036	.035	.034	.033	.037
APS refusal	APS refusal	.026	.021	.021	.024	.020	.021	.022
	Conviction	.021	.020	.017	.016	.016	.017	.018
	PBJ	.031	.030	.028	.025	.024	.027	.027
	All	.026	.024	.023	.022	.020	.022	.023
Conviction	Conviction	.018	.017	.015	.014	.012	.011	.015
	PBJ	.024	.023	.020	.020	.018	.017	.020
	All	.021	.020	.018	.017	.015	.014	.018
All	APS failure	.041	.037	.035	.034	.034	.032	.035
	APS refusal	.026	.021	.021	.024	.020	.021	.022
	Conviction	.023	.021	.019	.018	.016	.015	.018
	PBJ	.031	.030	.026	.026	.025	.025	.027
	All	.028	.027	.024	.024	.022	.022	.024

Table 5

Estimated hazard ratios of DWI recidivism for first offenders, relative to drivers with no prior DWI, by disposition sequence of the first offense

Disposition sequence	Hazard ratios	95% CI
APS failure	6.52	[6.07, 6.99]
APS failure and conviction	8.52	[7.95, 9.14]
APS failure, conviction, and PBJ	8.73	[8.44, 9.04]
APS refusal	7.06	[6.49, 7.67]
APS refusal and conviction	9.89	[9.15, 10.69]
APS refusal, conviction, and PBJ	9.69	[9.14, 10.26]
Conviction	7.64	[7.24, 8.07]
Conviction and PBJ	7.92	[7.58, 8.29]

Note. CI=confidence interval