Pacific Institute for Research and Evaluation

AN EVALUATION OF ADMINISTRATIVE PER SE LAWS

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Final Report to
The National Institute of Justice
United States Department of Justice
Grant Number 86-IJ-CX-0081
September, 1989

Pacific Institute for Research and Evaluation
Bethesda, Maryland

ACKNOWLEDGEMENTS

This study could not have been completed without the assistance of people in each state who took on the time-consuming and task of providing the data and information needed.

The authors would like to thank:

Mr. Riley Furr
Louisiana Department of Public Safety and Corrections
Highway Safety Commission

Mr. Shelby Hargrove
Louisiana Department of Public Safety

Mr. Ronald Sennett, MBA, CDP
Mississippi Office of Highway Safety

Mr. Elden G. Spier
Ms. Rene Barnhardt
North Dakota State Highway Department
Drivers License and Traffic Safety Division

Ms. Helen Tashima
California Department of Motor Vehicles

This report is dedicated to the memory of Theresa Roth. She persevered cheerfully in the face of pain, and though her strength dwindled, her warmth and humor and sense of commitment never did.

ABSTRACT

Administrative license revocation laws provide swift and certain punishment for drunken driving offenders. The general deterrence effects of these laws have been documented. The present study examines the specific deterrence effects of administrative license revocation in three states. Recidivism rates of samples of drivers arrested for drunken driving were compared before and after the implementation of administrative license penalties in three states: Louisiana, Mississippi and North Dakota. Comparisons were also made with California, which does not have administrative license revocation.

Results of the study indicated that in Louisiana and North Dakota significant decreases in recidivism rates occurred following the implementation of the administrative penalties. In Mississippi, while no decrease in drunken driving recidivism was observed, decreases in the rates of other traffic offenses did occur. In California, the comparison state, no significant changes in recidivism rates were observed during the study period.

The study also examined the impact of the implementation of administrative license sanctions on the attitudes and practices of law enforcement agencies. In general, while officers had some complaints about excess paperwork and hearing appearances, their enthusiasm for enforcing drunken driving laws was not decreased.

REVIEW OF RELEVANT LITERATURE

INTRODUCTION

The problem of drinking and driving is enormously stubborn and complex. If progress is to be made in reducing the tragic consequences of drunken driving, approaches must be adopted which attack the problem on several fronts simultaneously. One component of this multi-front approach is the administrative per se law which allows for the immediate confiscation by the arresting officer of the driver's license of any person who is arrested with a blood alcohol content over the legal limit.

While motor vehicle administrators historically have had statutory authority to revoke or suspend the licenses of drivers who pose a threat to the public, they have not, until recently, exercised this authority. In general, they have taken no action to suspend licenses of drivers who violate drunken driving or implied consent laws until they receive formal notice from the court of conviction for these offenders. Consequently, many offenders who were arrested and produced chemical test results over the legal blood alcohol limit failed to lose their licenses because of court procedures permitting reduction in charges or pretrial diversion. Even when offenders were convicted of drunken driving, months or even years might have elapsed between the arrest and the imposition of license penalties.

The adoption of laws which make it "illegal per se" to drive with a given blood alcohol concentration has increased the objectivity of enforcement and prosecution of drunken driving. In 1976, the State of Minnesota added to its implied consent statute a provision permitting the suspension of driving privileges by the motor vehicle department in any case where the driver refused testing or the test result was at or above the legal BAC limit. In response to the interest generated in administrative per se laws, the National Highway and Traffic Safety Administration (NHTSA) developed a model law entitled "Model Revocation on Administrative Determination Law" (NHTSA, 1983). In 1983, the Presidential Commission on Drunk Driving adopted a recommendation stating:

> States should enact legislation to require prompt suspension of the license of drivers charged with driving under the influence, upon a finding that the driver had a BAC of 0.10 in a legally requested and properly administered test. The prompt suspension should also extend to those who refuse the test, as well as those who are driving in violation of a

restricted license. Such suspension may be carried out by the arresting law enforcement agency, the court upon arraignment, or the administrative agency charged with license administration. There should be reciprocity among states to assure a driver's license suspension by the home state if the driver meets these conditions in another state (Presidential Commission on Drunk Driving, 1983).

As of October, 1985, 21 states had implemented administrative per se laws. The goal of these laws is to enhance general deterrence of drunken driving by increasing the likelihood of an immediate and significant penalty for drunken driving. It is commonly accepted that the deterrence effect of any law is dependent upon public perception of swift and certain punishment.

The laws might be expected to have a variety of other effects. Changing the penalties for drunken driving might be predicted to change the nature of specific deterrence, that is, the likelihood that an offender will repeat the offense. In addition, the laws alter the roles of law enforcement agencies. Law enforcement agencies, to a significant extent, take over the role of administering penalties as well as apprehending offenders. Thus, it is logical to anticipate effects on law enforcement. Another area of interest regarding the laws is the effectiveness and efficiency with which they seem to be administered and how this varies depending on the specific characteristics of the law and its administration.

Prior to the present study, some research has been done relevant to these areas. The following section will summarize these studies.

GENERAL DETERRENCE

Campaigns designed to discourage the general public from drinking and driving have been shown to have dramatic effects on the incidence of drunken driving and alcohol related crashes, when the campaigns are well publicized (Ross, 1982). The general goal of the campaigns is to increase the public perception of the swiftness and sureness of punishment. These campaigns can take the form of increased enforcement, more conspicuous enforcement, and other means by which to increase at least the apparent risk of punishment associated with drinking and driving (Sweedler, 1984).

General deterrence of drunken driving is difficult to measure directly and even more difficult to attribute causally to any given legal or social change. Nonetheless, several studies have been carried out which attempt to measure the general deterrence effects of administrative per se laws. These studies

are of three types: general population surveys of public perceptions of the law; analysis of the occurrence of alcohol-involved crashes before and after the change in laws; and random roadside breath tests which determine the proportion of drivers on the road under the influence of alcohol.

General population surveys have found some evidence of attitudes which might contribute to general deterrence. In a survey of Minnesota drivers, Lowrey (1983) found that 75% of respondents perceived that the likelihood of punishment after being caught had increased since the adoption of the new laws. The survey also identified the possibility of license revocation as a very important deterrent to drinking and driving. A survey of drivers in Oregon indicated a belief that the risk of license suspension had increased since the implementation of an administrative per se law. However, respondents believed that only a third of drivers arrested lose their license (Jones, 1985).

Similarly, analysis of crashes indicates some improvements which might be attributable to the change in laws. These studies usually compare the ratio of alcohol-involved to other fatalities or crashes or compare the ratio of nighttime to daytime fatalities or crashes (the assumption being that crashes occurring at night are more likely to involve alcohol, even if alcohol is not specifically identified as a causal factor by police). Studies of fatalities in Minnesota and Iowa show that the fatality rate has dropped since the implementation of the administrative per se law. However, these results are not clear cut because in both states the reduction began before the change in the law and occurred at a time when fatalities were decreasing nationwide (NTSB, 1984). An analysis of crash rates in Oregon found a small but significant reduction in fatality and injury crashes attributable to the change in laws (Jones, 1985). A recent national study by the Insurance Institute for Highway Safety found a 9% reduction in fatalities during the highest risk evening and nighttime hours in those states which had adopted administrative license revocation laws (Zador, 1988).

In New Mexico, Ross (1987) found that the proportion of drivers in fatal crashes with a blood alcohol content over .05 percent decreased from 66% to 56% after the implementation of an administrative per se law.

A random roadside breath testing survey was carried out in Minnesota both before and after the implementation of administrative license action. The proportion of drivers surveyed who could be considered to be under the influence of alcohol was reduced by more than half following the implementation of the law (National Commission, 1985). This difference is difficult to attribute to the implementation of administrative per se laws, however, since a change in general social climate may have occurred along with the legal changes.

In summary, studies of the general deterrent effects of administrative per se laws give reason to believe that they may have a positive effect on drunken driving.

SPECIFIC DETERRENCE

One goal of any penalty for drunken driving is to discourage offenders from repeating the offense. Jail terms and fines are seen as such negative consequences that once offenders have experienced them they may be less inclined to drink and drive again. Education and rehabilitative programs for offenders are designed to change behavior through providing information or treatment for problems of alcohol abuse. Driver's license revocation has the dual purpose of being a negative consequence and reducing the risk of a repeat offense by reducing exposure to the danger of offending (reducing the amount of driving).

It has been pointed out in the literature that general deterrence is potentially a far more powerful prevention strategy than specific deterrence. There are so many drinking drivers and the probability of arrest is so small that even if all offenders could be prevented from repeating their offense, the rate of alcohol related crashes would decline only slightly (Reed, 1981; NTSB, 1984). Even so, offenders are at high risk of rearrest. Longitudinal studies of first offense drunken driver indicate that 18% can be expected to recidivate within the first year and 24% can be expected to recidivate within the first 2 years (Hagen, McConnell and Williams, 1980). In addition, as general deterrence becomes more effective, enforcement more vigorous and the population of arrested offenders grows, specific deterrence may become a more powerful preventive force.

The literature on the effectiveness of license suspension and revocation in preventing recidivism indicates that the overall number of subsequent crashes and rearrests for offenders whose licenses were revoked is lower than for offenders who did not receive a license penalty. Studies of multiple offenders in California found at least 30% fewer subsequent crashes and convictions among drivers who received license actions in conjunction with fines and jail sentences as compared to drivers who received fines and jail alone (Hagen, Williams and McConnell, 1978). In a more recent study of multiple offenders, offenders who participated in a one-year rehabilitation program and did not receive license actions had a rate of subsequent non-alcohol related crashes and offenses 70% higher than that for offenders who had received license actions. The alcohol-related crash and arrest rates for the rehabilitation group were slightly lower than for the group who licenses had been revoked (Sadler and Perrine, 1984).

It is generally agreed that the effectiveness of license actions in reducing recidivism is due largely to reduced driving exposure, although there is some evidence that the effect lasts beyond the revocation period, indicating that some longer lasting changes in behavior might be involved (Sadler and Perrine, 1984).

License actions do not prevent offenders from driving altogether. Surveys of offenders whose licenses have been revoked indicate that most continue to drive but they drive less than before their revocation and they try to drive more carefully (Ross and Gonzales, 1988; Hagen, McConnell and Williams, 1980).

Prior to the current study, research carried out on the specific deterrence effects of driver's license penalties was carried out in states which do not have administrative per se laws. The specific deterrence effects of more widespread license actions applied administratively were not known.

EFFECTS ON LAW ENFORCEMENT

It has been anticipated that the implementation of administrative license revocation might lead to more vigorous law enforcement (NTSB, 1984). Law enforcement agencies have been perceived to be frustrated by the fact that a large proportion of arrested offenders delay or evade penalties. Charges are sometimes dropped or reduced by the judicial system. Court backlogs or delaying tactics on the part of offenders can result in long lags between the offense and the imposition of penalties. With the implementation of administrative per se laws, law enforcement agencies are given the power virtually to ensure the imposition of a serious penalty. At the same time, however, the record-keeping burden on police is increased. In addition, there is the possibility of increased offender resistance to arrest because of the certainty that once arrested, punishment will occur. Thus, the implementation of administrative per se laws might be expected to affect arrest rates and the attitudes of law enforcement officers.

Arrest records from both Minnesota and Iowa indicate that drunken driving arrest rates have increased in response to the imposition of the new laws (NTSB, 1984). In Oregon, however, a survey of police officers indicated that "most officers (in terms of numbers of arrests) are even less convinced." This finding was explained in part by the fact that the officers do not identify suspensions as a preferred deterrent measure, believing that most offenders will drive despite the license suspension. The officers surveyed also reported some increased workload associated with the new procedures. Data were not available to indicate whether arrest rates for drunken driving had changed as a result of the new law (Jones, 1985).

AN EVALUATION OF THE EFFECTIVENESS OF ADMINISTRATIVE PER SE LAWS

The preceding review of literature pertaining to administrative per se laws indicates that the laws are indeed a promising approach to decreasing the toll of drunken driving. However, many important questions remained unanswered which the current study addresses. The study is made up of two parts:

- The Recidivism Study is designed to provide information concerning the effectiveness of administrative per se laws in bringing about specific deterrence of drunken driving.

- The Law Enforcement Study is designed to provide information concerning the impact of the laws on the attitudes and practices of law enforcement agencies.

The conclusions and recommendations which can be drawn from the findings of these studies will be discussed.

SELECTION OF STATES FOR STUDY

As of October 1, 1985, 21 states had implemented administrative license revocation laws. Since it was not feasible to carry out a study of all the states with such laws, a purposive sample of three states with similar laws was selected. The Model Revocation on Administrative Determination Law (ROAD) developed by NHTSA specifies 30 different aspects of the law. No state adheres completely to the model and no two states have adopted identical laws. It was considered crucial that the states to be included in the study be similar on several key points which would seem most likely to affect specific deterrence:

- License action is independent of the outcome of criminal charges;
- Notice of the license action is given by the arresting officer (rather than being mailed or delivered to the offender at a later time);
- The license is seized by the arresting officer;
- The length of the license action is at least 90 days.

In order to maximize the comparability across states, study states were selected in which the illegal per se blood alcohol content is .10.

Eight states met these criteria. A key factor in the selection of the states to be studied was the availability of necessary data and the willingness of key agencies to participate in the research. On this basis, three states were identified which had laws with the required characteristics and which agreed to provide the necessary data. The states are Louisiana, Mississippi and North Dakota.

In order to allow for the detection of historical effects which might change recidivism rates independent of administrative per se laws, a comparison state was also selected. California was selected as a state which had not adopted administrative per se laws but which had adopted several other changes, include an illegal per se level of alcohol , and more severe penalties (fines and jail sentences) but not license penalties.

While the laws of the three study states are similar in the areas discussed above, in other important respects they are rather different. Processes for appealing the license action vary as do other penalties imposed and provisions for limited driving permits. These differences may affect the smoothness and efficiency of the operation of the law, opportunities for offenders to continue to drive despite the license action and the severity of other sanctions experienced by offenders.

Following are descriptions of important aspects of the administrative suspension/revocation process in each of the four study states.

LOUISIANA

Administrative license suspension was implemented in Louisiana in March of 1984. The law provides for a 90 day suspension for a first offense if the offender submits to alcohol testing. The offender is eligible for a hardship permit after 30 days. (If the offender refuses testing, the suspension is for 180 days and the offender is eligible for a hardship permit after 90 days.) For a second offense, the suspension is for 365 days and there is no hardship driving permit. (A second offense for refusal to submit to testing results in a 545 day suspension with no hardship permit available.)

At the time of arrest, the arresting officer fills out three copies of a form. One copy is sent to the Office of Motor Vehicles (OMV) as official notification of withdrawal of the driver's license. The second copy serves as a temporary driver's license which is valid for 30 days. The third copy can be submitted by the offender within ten days to request a hearing. The Department of Public Safety must be able to schedule a hearing within 45 days. The temporary driving permit can be used until the hearing process is complete.

The hearing is officiated by an administrative law judge in the area in which the driver resides. The arresting officer may or may not be subpoenaed (if he or she is, the location of the hearing may be at the officer's convenience). If the officer is not present, the judge relies on the affidavit filed at the time of arrest. The driver may further appeal the suspension to district court.

Offenders must also go through judicial processing of the arrest. If they are convicted in court, a fine, jail sentence, community service and a rehabilitative program may be ordered. License suspensions may also be imposed. These suspensions are of the same length as those imposed administratively and are served concurrently.

Approximately 60% of cases which come to hearings are affirmed. The usual grounds for voiding a suspension include lack of proper notarization of the affidavit, poorly documented or inadequate probable cause for stopping the driver, or the failure of subpoenaed arresting officers to appear at the hearing. This last reason has been a particular problem. Officers are reluctant to take the time to appear at hearings, especially since they receive no compensation for appearing.

In 1985, 27,752 affidavits were filed with OMV. Of these, 23,906 (86%) resulted in suspensions. Three per cent of the total affidavits were dismissed as incomplete, 3% of the affidavits were faulty, 5% of the cases were voided at a hearing, 2% were dismissed because hearings could not be scheduled within the 45 day limit. (The 45 day limit was subsequently extended to 90 days, which may increase the proportion of cases affirmed.)

Of the 27,752 affidavits filed, 22% were for test refusal rather than for drunken driving. Approximately 13% of both refusal cases and drunken driving cases were appealed. In about half of both types of cases, the suspension was affirmed.

While hardship licenses are available for transportation to and from work, they are rarely requested. In 1985, only 6% of suspended offenders received a hardship license. There is speculation that the $110 fee for the permit discourages many offenders from applying for a permit.

Thus far, the fourteen administrative law judges state wide have been able to keep up with the hearings requested. The judges are able to use a computerized system to help them in formulating decisions and in processing and recording decisions.

MISSISSIPPI

The administrative per se law was implemented in Mississippi in July of 1983. Drivers who are arrested with a BAC over .10 receive a temporary permit valid for 30 days. There is no hearing process as such. A public safety commissioner reviews the sworn statement of the arresting officer to determine if the offender was driving on a public road, if the BAC was .10 or above and if there was probable cause for the stop. If all of these factors are positive, the suspension goes into effect. Officials reported that a "very minimal" number of suspensions are voided as a result of the review process.

The suspension for a first offense is for one year. The suspension period can be reduced to 90 days if the offender completes the drinking driver educational program. For a second offense, the suspension is for up to two years. (The Public Safety Commissioner has some discretion regarding the length of suspension.) The suspension period can be reduced to one year if the offender completes an alcohol and drug abuse assessment and state certified treatment program. In the case of offenders who refuse BAC testing, the suspension is for 90 days for a first offense and one year for a second offense.

Offenders found guilty in court of drunken driving are fined $200 to $500 for a first offense and $400 to $1,000 for a second

offense. A fine of $500 to $1,000 is imposed for test refusal. First offenders may be sentenced to up to 24 hours in jail and second offenders may be sentenced to up to 48 hours. Community service work can be substituted for jail time. Third offenders receive a jail sentence of not less than 30 days and not more than one year.

Until recently, first offenders could request that the 90 day suspension be reduced to 45 days if the inability to drive presented a major hardship. The law permitting this reduction expired in July of 1987. It is not known whether it will be reinstated. Some officials believe that the lack of any type of hardship permit has led to an increase in the number of petitions to the court for "non adjudication of guilt." If such a petition is granted, the offender is required to carry out the orders of the court which may include such things as maintaining sobriety, obtaining treatment, etc. If the offender satisfactorily carries out these orders, judgement of guilt is held in suspense and at the end of a prescribed period, the offense is removed from the offender's record. If the offender is successful in petitioning for non adjudication of guilt, there is no license suspension at all. While the number of such cases is currently small, officials believe that this method of defense is growing in response to the absence of hardship driving permits.

NORTH DAKOTA

The administrative per se law was implemented in North Dakota in 1983. Drivers who are arrested with a BAC of .10 or greater are given a temporary permit valid for 25 days. If they wish to request a hearing, they must do so within ten days of arrest. The hearing must occur within the duration of the 25 day permit. Hearings are officiated by a hearing officer in the county in which the arrest occurred. The arresting officer is required to attend. Approximately 20% of arrested drivers request hearings. In most of these cases the suspension is upheld (77% were upheld in 1985-86). The typical reasons for dismissal of the suspension are inadequacy of probable cause and problems with testing procedures. Very rarely are cases dismissed because the arresting officer does not appear. This may be because the hearings are scheduled at the convenience of the officers. The 23% dismissal rate is an improvement over the early implementation period. In 1983, 35% of cases were dismissed. Since that time, a campaign to educate law enforcement officers concerning arrest procedures has increased the rate of suspensions upheld.

The administrative penalty for a first offense is a 91 day suspension. After 30 days, offenders are entitled to request a limited permit enabling them to drive to work. Approximately 60%

of offenders obtain a work permit. The penalty for a first time test refusal is a one year revocation with no opportunity for a work permit. A second drunken driving offense mandates a one year revocation with no work permit. A second refusal entails a two year revocation.

Offenders who are found guilty in judicial processing are fined a minimum of $250 for a first offense. They are also ordered to undergo an evaluation to determine the type of rehabilitation needed. These evaluations are carried out either by a private licensed agency or by a state run human service agency. Based on the results of the evaluation, offenders are required to attend an education program, outpatient alcohol treatment or inpatient alcohol treatment. Offenders must prove that they have enrolled in either the education program or outpatient treatment before they are eligible to receive a work permit. If inpatient treatment is required, they cannot receive a permit until the program has been completed. There is no mandatory jail for a first offense.

Second offenders are fined a minimum of $500 and receive a sentence of four days in jail or ten days of community service. The rehabilitation requirements are the same as for a first offense.

CALIFORNIA

California has no administrative per se law. The illegal per se blood alcohol level in California, as in the study states, is .10. The penalties for a first conviction for driving under the influence include a fine of $390 to $1,000, possible jail term of 96 hours to six months, restricted driving privilege for up to six months. Probation usually requires a defendant to participate in an alcohol education program. Penalties for a second offense include a $390 to $1,000 fine, a mandatory minimum jail sentence of 48 hours (or ten days of community service), license suspension for 18 months (restricted driving privilege can be granted after 30 days). Participation in a rehabilitative program is usually required as a condition of probation.

Although license suspension is a possible judicial penalty in California, it is rarely used. Fewer than ten percent of first offenders have their license suspended by the court.

SUMMARY OF CHARACTERISTICS OF ADMINISTRATIVE PER SE LAWS IN STUDY STATES

	LA.	MISS.	N.D.
Date of Implementation	3/84	7/83	7/83
Type of license action	susp.	susp.	susp.
Length of license action			
First offense	90 days	90 days	91 days
Multiple offense	365 days	365 days	365 days
Test refusal	180 days	365 days	365 days
Hardship permit available	yes	no	yes
When eligible	after 30 days		after 30 days
Other penalties imposed (first offense)			
Fine	$300	$200-$500	$250
Rehabilitation	yes	yes	yes
Jail	instead of fine	up to 24 hrs.	none

RECIDIVISM STUDY

As discussed in the literature above, research indicates that license suspension is effective in reducing crash and recidivism rates. Much of the effect may be due to decreased exposure to risk. However, the deterrence literature also asserts that swift and sure consequences for an offense may lead to increased deterrence. Administrative license revocation is designed to increase the swiftness and sureness of the license penalty. The current study was designed to measure the effectiveness of administrative license revocation in decreasing recidivism rates.

Methods

In order to measure the effects on recidivism, two samples of convicted drunken driving offenders were drawn in each of the study states: One sample prior to and one after the implementation of the administrative per se law in that state. The offenders in these samples were then followed to determine whether or not they had been involved in another drunken driving offense during the following three years. Comparisons were then made to determine whether the pre and post samples differed in the rates of recidivism.

Because of differences in the driving records system in each state and differences in the dates of implementation of administrative license revocation, the sampling techniques differed from state to state. Following is a description of the sampling method used in each state.

MISSISSIPPI

The Mississippi pre law sample was randomly drawn from all individuals convicted of a drunken driving offense in the period September, 1979 through August, 1980. This group was followed until January, 1983 (follow up time ranges from 2 years and 4 months to 3 years and 4 months). The post law sample was randomly drawn from all individuals convicted of a drunken driving offense in the period September 1983 to August 1984 and followed until January of 1987 (the same length of time as the pre-law sample). Both samples were constructed with the constraint that equal numbers of subjects enter the analysis from each month of the target year pre and post law. In this way any effects due to perturbations in the seasonal pattern of arrests between pre and post law sampling periods was minimized. The entry date into the sample was the date of conviction.

In the pre law period, 1,161 offenders were sampled out of approximately 7,000 convictions. In the post law period, 1,133 offenders were sampled out of approximately 15,000 license actions. No individual who appeared in the pre law sample also appeared in the post law sample.

Analyses of DWI recidivism rates were carried out using survival analysis techniques widely applied to the analysis of recidivism data (Lawless, 1982; Maltz, 1984; Gruenewald and West, 1989). These analysis techniques provide estimates of recidivism rates unbiased by the censoring pattern of the data acquired during the study (see also Kalbfleisch and Prentice, 1980; Miller, 1981). Specifically, Kaplan-Meier estimates of the survival functions for both pre and post law samples were directly compared to determine which sample demonstrated the greatest recidivism rate. Overall non-parametric tests of this difference were used to assess its statistical significance. In addition, Cox proportional hazards models were used to assess the differential impact of measurable demographic features of the samples on recidivism rates pre and post law. The differences in recidivism rates pre and post law were then re-examined in this context, controlling for possible demographic biases in the original analyses.

LOUISIANA

Because of idiosyncrasies in the record keeping system of Louisiana the sample in this state was drawn from arrested rather than convicted drunken drivers. The Louisiana pre law sample was randomly drawn from all individuals with a drunk driving arrest from September of 1982 to August of 1983. This group was followed until September of 1986 (with follow up times of from 3 to 4 years). The post law sample was randomly drawn from individuals with drunken driving arrests from the period September, 1984 to August, 1985 with a slightly shorter follow up period to May, 1988 (follow up times of from 2 years 8 months to 3 years 8 months). Once again, both samples were constructed with the constraint that equal numbers of subjects enter the analysis from each month of the target year pre and post law. In this way any effects due to perturbations in the seasonal pattern of arrests between pre and post law sampling periods were minimized.

In the Louisiana data there is some overlap between the follow up period of the pre law sample and the post law sample. This overlap occurred because of the relative recency of implementation of the administrative license suspension law in Louisiana and limitations on the historical availability of data from this state. Hence, while the initial offense that put the offender in the pre law sample was handled under the old statutes, subsequent offenses may have been subject to administra-

tive suspension.

The pre law sample included 989 arrested drunken drivers. (Information on the total number of arrests during that period was not available.) arrests during the entry period. The post law sample included 1,036 offenders (out of about 22,000 offenses in the post law sample period). In the pre law sample 551 individuals (55.7% of those arrested) were convicted on their entry offense. In the post law sample 648 individuals (62.5% of those arrested) were convicted on their entry offense. No individual who appeared in the pre law sample also appeared in the post law sample.

The basic analytic strategy applied to the Mississippi data was also applied to the Louisiana data. However, the survival analyses were conducted in two ways. First, data from the time of initial arrest, regardless of conviction status, to subsequent arrest and conviction were analyzed. These analyses provide an overall assessment of the impact of the administrative per se law on individuals arrested for drunken driving and an estimate of the effects of arrest convictions on subsequent DWI behavior. Second, the data were re-analyzed including only individuals arrested and convicted on both their entry and subsequent offenses. These analyses provide an assessment of the impact of the administrative per se law on individuals arrested and convicted of drunken driving offenses.

NORTH DAKOTA

The North Dakota pre law sample was randomly drawn from all individuals convicted of a drunken driving offense in the period September, 1979 through August, 1980. This group was followed until September, 1983 (follow up time ranges 3 to 4 years). The post law sample was randomly drawn from all individuals convicted of a drunken driving offense in the period September 1983 to August 1984 and followed until September of 1987 (the same length of time as the pre-law sample). Both samples were constructed with the constraint that equal numbers of subjects enter the analysis from each month of the target year pre and post law. The entry date into the sample was the date of conviction.

In the pre law period, 1,500 offenders were sampled out of approximately 6,000 convictions. In the post law period, 1,500 offenders were sampled out of approximately 7,000 convictions. No individual who appeared in the pre law sample also appeared in the post law sample.

The recidivism analysis was carried out in the same way as for the state of Mississippi.

CALIFORNIA

Four samples of individuals were drawn from data available from the state of California. Each of the four samples corresponds to a sample drawn for each of the three states in which a change in the administrative per se law took place. One pair of samples corresponds in time to the samples drawn from the states of North Dakota and Mississippi. The second pair of samples corresponds to the samples drawn from the state of Louisiana. Each of these pairs will be described separately.

Comparison Samples for North Dakota and Mississippi. The California pre law sample for comparison with North Dakota and Mississippi was randomly drawn from all individuals convicted of a drunken driving offense in the period January, 1980 through August, 1980.[1] This group was followed until September, 1983 (follow up time ranges 3 years to 3 years 8 months). The post law sample was randomly drawn from all individuals convicted of a drunken driving offense in the period January, 1984 to August, 1984 and followed until September of 1987 (the same length of time as the pre-law sample). Both samples were constructed with the constraint that equal numbers of subjects enter the analysis from each month of the target period pre and post law. The entry date into the sample was the date of conviction.

It should be noted that the data available from the state of California did not cover exactly the same period for the entry offense as the original data from the states of North Dakota and Mississippi. The California data was left truncated at January of the entry period. While this difference in sampling structure will bias direct comparisons of recidivism rates to the states of North Dakota and Mississippi (due to differences in the seasonal structure of the samples), it will not affect comparisons within California itself for the time periods pre and post law. Since it is the latter comparisons which hold interest in this study, this bias has been ignored.

In the pre law period, 1,053 offenders, and in the post law period, 1,101 offenders were sampled for this analysis by the California Department of Motor Vehicles. No subject who appeared

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[1]The term "random" is used advisedly here. The state of California Department of Motor Vehicles supplied convenience samples to the researchers for the relevant time periods. These samples represent all subjects entered into their computerized tracking system within the month of August of the target years. For purposes of statistical inference, these groups of individuals were treated as random samples of all individuals arrested and convicted of DWI offenses in the state of California for the target years.

in the pre law sample also appeared in the post law sample.

The recidivism analysis was carried out in the same way as for the states of North Dakota and Mississippi.

Comparison Samples for Louisiana. The California pre law sample for comparison with Louisiana was randomly drawn from all individuals convicted of a drunken driving offense in the period January, 1983 through August, 1983. This group was followed until September, 1986 (follow up time ranges 3 years to 3 years 8 months). The post law sample was randomly drawn from all individuals convicted of a drunken driving offense in the period January, 1985 to August, 1985 and followed until May of 1988 (follow up time ranges from 2 years 8 months to 3 years 4 months). Both samples were constructed with the constraint that equal numbers of subjects enter the analysis from each month of the target period pre and post law. The entry date into the sample was the date of conviction.

It should be noted that, as in the other comparison samples, the data available from the state of California did not cover exactly the same period for the entry offense as the original data from the state of Louisiana. The California data was left truncated at January of the entry period.

It is important to also note that no arrest information was available from the state of California Department of Motor Vehicles to enable a parallel comparison to the arrest data from Louisiana. Thus, the proper comparison to be made between these states is that between corresponding analyses of arrests and convictions only.

In the pre law period, 837 offenders, and in the post law period, 1,015 offenders were sampled for this analysis by the state of California Department of Motor Vehicles. No individual who appeared in the pre law sample also appeared in the post law sample.

The recidivism analysis of the arrest and conviction data was carried out in the same way as for the state of Louisiana.

RESULTS

MISSISSIPPI

Demographic data available from the state of Mississippi included the sex, race and date of birth of each offender. In the pre law sample 6.3% of the offenders were female, while in the post law sample this percentage increased somewhat to 8.2% (a non-significant difference, $X^2 = 3.15$, df = 1, N = 2294, p = .076). The majority of individuals were identified as "white" in both the pre law (62.5%) and post law (62.8%) samples (another non-significant difference, $X^2 = .04$, df = 1, N = 2294, p = .845). Individuals in the pre law sample were slightly older at their entry offense than offenders from the post law sample (35.3 versus 33.3 years, a small but significant difference, t = 3.627, df = 2291, $p < .001$).

Figure 1 presents the Kaplan-Meier estimates of the cumulative failure functions representing re-convictions on a drunken driving offense for the pre and post law samples. In Mississippi, no difference is apparent in the rate at which offenders commit a subsequent offense. In both groups, after 100 days, approximately 10% have been convicted of another offense. After about three years, about 33% have been convicted for another offense. The nonparametric Breslow-Gehan statistic, testing the difference in failure rates between groups, confirmed that no significant difference was present ($X^2 = .001$, df = 1, N = 2285, p = .976).

Since there were some differences in the demographic compositions of the pre and post law samples (e.g., age), a Cox proportional hazards regression model was used to analyze these data. The model tested whether significant differences appeared between pre and post law hazard rates when the differential effects of demographic variables were statistically controlled.[2] The results of the overall regression appear in Table 1.

The results of this analysis show that only the sex of the offender was significantly related to the hazards of subsequent recidivism. That is, the risk of recidivism was significantly

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[2]Throughout this discussion the term "hazards" is used interchangeably with the phrase "risks of recidivism". Both are used to distinguish the risks of recidivism analyzed using the Cox proportional hazards model, h(t), from the (unknown) underlying distribution of failures, f(t). Both are often confusingly referred to as "failure rates". However, $h(t) = f(t)/S(t)$ (Lawless, 1982).

Table 1

Cox Proportional Hazards Regression Model:

First DWI Conviction to Second DWI Conviction

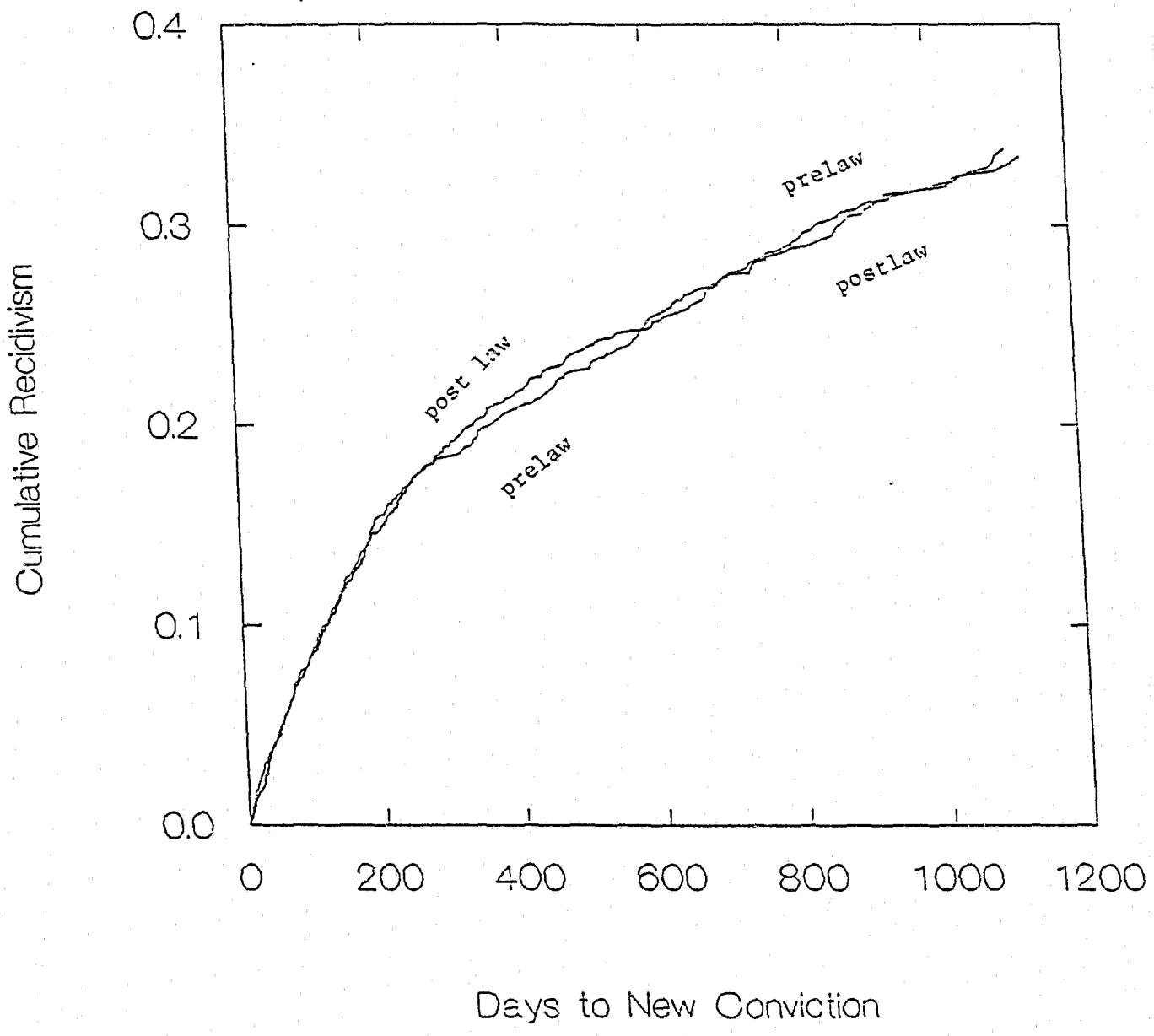
(Mississippi, N = 2285)

Covariate:	Estimate:	S.E.:	T:	p:
Sex	-.669	.187	-3.573	.0002
Race	.028	.076	.368	.3594
Age	-.002	.003	-.605	.2709
Group*	.013	.074	.178	.4286

*Pre law versus post law sample.

figure 1

Mississippi DWI Recidivism Analysis



lower among females than among males.[3] After three years about 33% of the males and only 20% of the females had committed a new drinking and driving offense. There were no significant differences in risks of recidivism between the pre and post law samples.

A different picture emerges when convictions for all other traffic offenses are analyzed from the time of the individuals' entry DWI offense (Figure 2). For other offenses, in the pre law sample there is about a five month lag before other traffic violations begin to appear on the records of DWI offenders. After about three years, approximately 37 percent of the pre law sample have committed some other offense. In the post law group, 7 months pass before other offenses appear. After three years, about one third of the sample have committed some other offense. These functions are significantly different (Breslow-Gehan X^2 = 8.633, df = 1, N = 2293, p = .003).

A Cox proportional hazards regression analysis was also performed using these data. The results of this analysis appear in Table 2. As shown by this analysis, females are significantly less at risk than males to have another traffic offense. In addition, older individuals are less at risk of having a conviction for another traffic offense, and the post law group shows significantly lower risks of recidivism than the pre law group.

These analyses show that after the change in the law, offenders go on to commit further drunken driving offenses at about the same rate as before the law changed. However, they are inhibited from committing other traffic offenses for a longer period of time.

LOUISIANA

Demographic data available from the state of Louisiana included the sex, race, blood alcohol content (BAC) at the entry arrest and date of birth of each offender. In the pre law sample 7.8% of the offenders were female, while in the post law sample this percentage increased somewhat to 7.9% (a non-significant difference, X^2 = .01, df = 1, N = 2025, p = .914). The majority of individuals expressed a racial identity of "white" in both the pre law (69.4%) and post law (70.6%) samples (another non

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[3]The proportional hazards assumption for this and all subsequent Cox models was examined by rerunning each analysis stratifying on each categorical variable in every model. The coefficients of the stratified models were checked to determine if the stratified effects and unstratified effects were comparable. Failure to obtain comparable coefficients between models diagnoses a failure of the proportional hazards assumption (Steinberg and Colla, 1988).

figure 2

Mississippi Recidivism Analysis
Non DWI Offenses

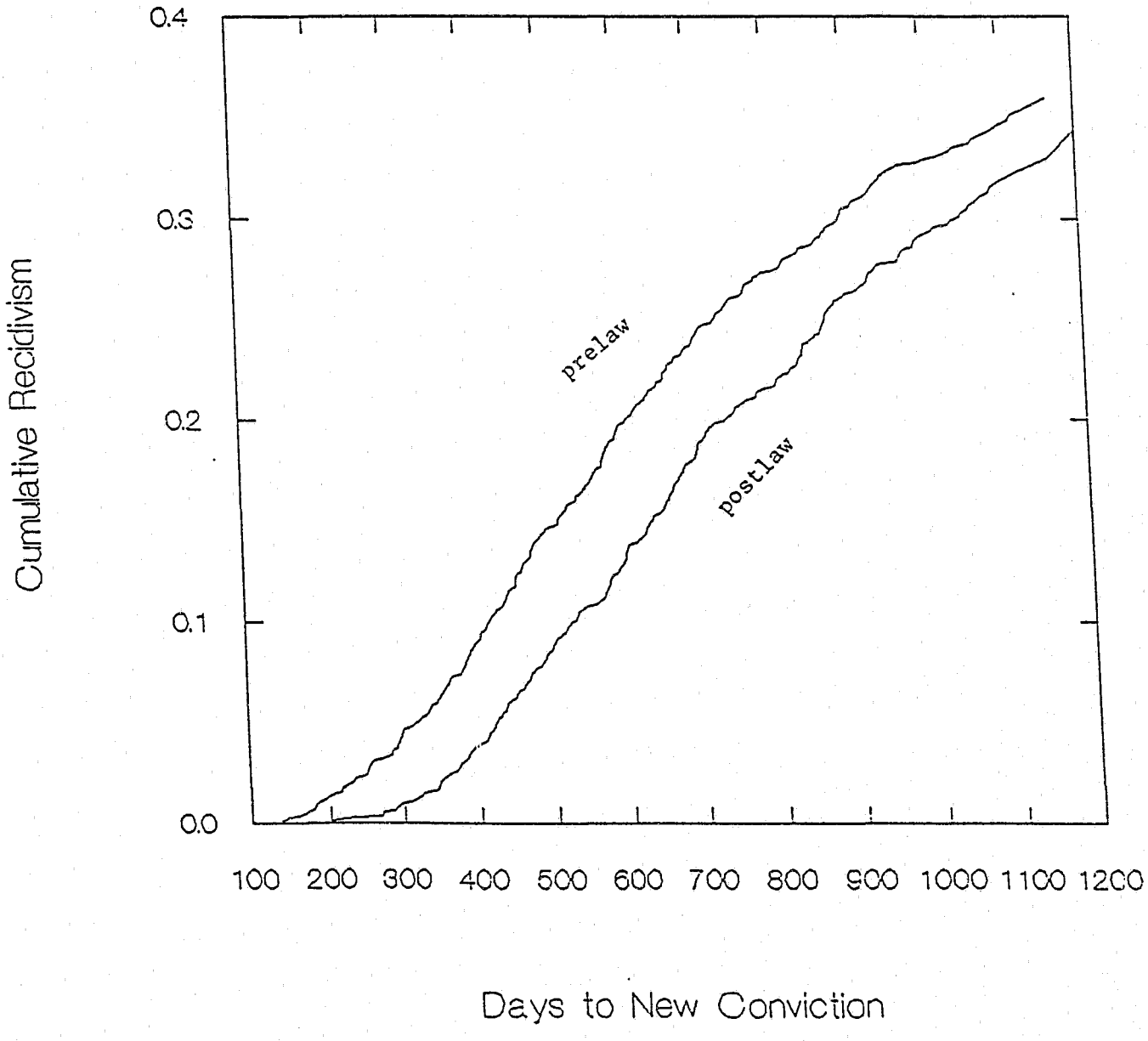

Table 2

Cox Proportional Hazards Regression Model:

First DWI Conviction to Next Non-DWI Conviction

(Mississippi, N = 2293)

Covariate:	Estimate:	S.E.:	T:	p:
Sex	-.534	.179	-2.984	.0014
Race	-.076	.078	-.970	.1660
Age	-.023	.003	-7.027	.0001
Group	-.198	.075	-2.654	.0042

significant difference, X^2 = .34, df = 1, N = 2018, p = .560). Individuals in the pre law sample were slightly younger at their entry offense than offenders from the post law sample (31.6 versus 31.8 years, a non-significant difference, t = -.303, df = 2021, p = .762). And, finally, the BACs at arrest on the entry offense were slightly lower in the post law sample (.164 versus .170, a significant difference, t = -2.437, df = 1763, p = .015).

The first analysis of recidivism data from the state of Louisiana examined the time interval from arrest for a DWI offense to conviction on a subsequent offense before and after the implementation of the administrative per se law. Since the sample for Louisiana was constructed on the basis of arrest rather than conviction records, this analysis affords the opportunity to examine the differential effects of arrest versus arrest and conviction upon subsequent DWI behavior.

Figure 3 presents the Kaplan-Meier estimates of thecumulative failure functions representing convictions for a subsequent DWI offense. Small differences in recidivism rates appear between the pre and post law samples. At the end of three years, approximately 19% of the pre law group had been convicted of another drunken driving offense versus approximately 18% of the post law group. The difference between these two failure functions was not significant (Breslow-Gehan X^2 = .947, df = 1, N = 1757, p = .330).

A Cox proportional hazards model was used to further examine these data, statistically controlling for a number of potential biases in the previous analysis. Particularly, as noted in the discussion of the Louisiana sampling plan, there were differences in the rates of convictions for DWI offenses before and after the implementation of the administrative per se law. 56% of those arrested were convicted on a drunken driving offense in the pre law sample, while 63% of those arrested were convicted in the post law sample. This difference was significant (X^2 = 9.788, df = 1, N = 2025, p = .002) and suggests that the slightly lower recidivism rate observed in the post law sample may have been due to this higher rate of conviction.

In addition, the proportional hazards model was used to test whether there were unique effects of conviction on a DWI arrest in the post law sample, after the administrative per se law had gone into effect. That is, a direct test of the specific deterrence effect of the law could be provided in this context.

The results of applying the Cox proportional hazards regression model to these data appear in Table 3. Three demographic variables strongly affect risks of recidivism in the Louisiana samples: Older individuals, those with lower BACs at the first arrest, and females have less risk of recidivism than younger individuals, those with higher BACs, and males. After

Louisiana Recidivism Analysis
All DWI Arrests

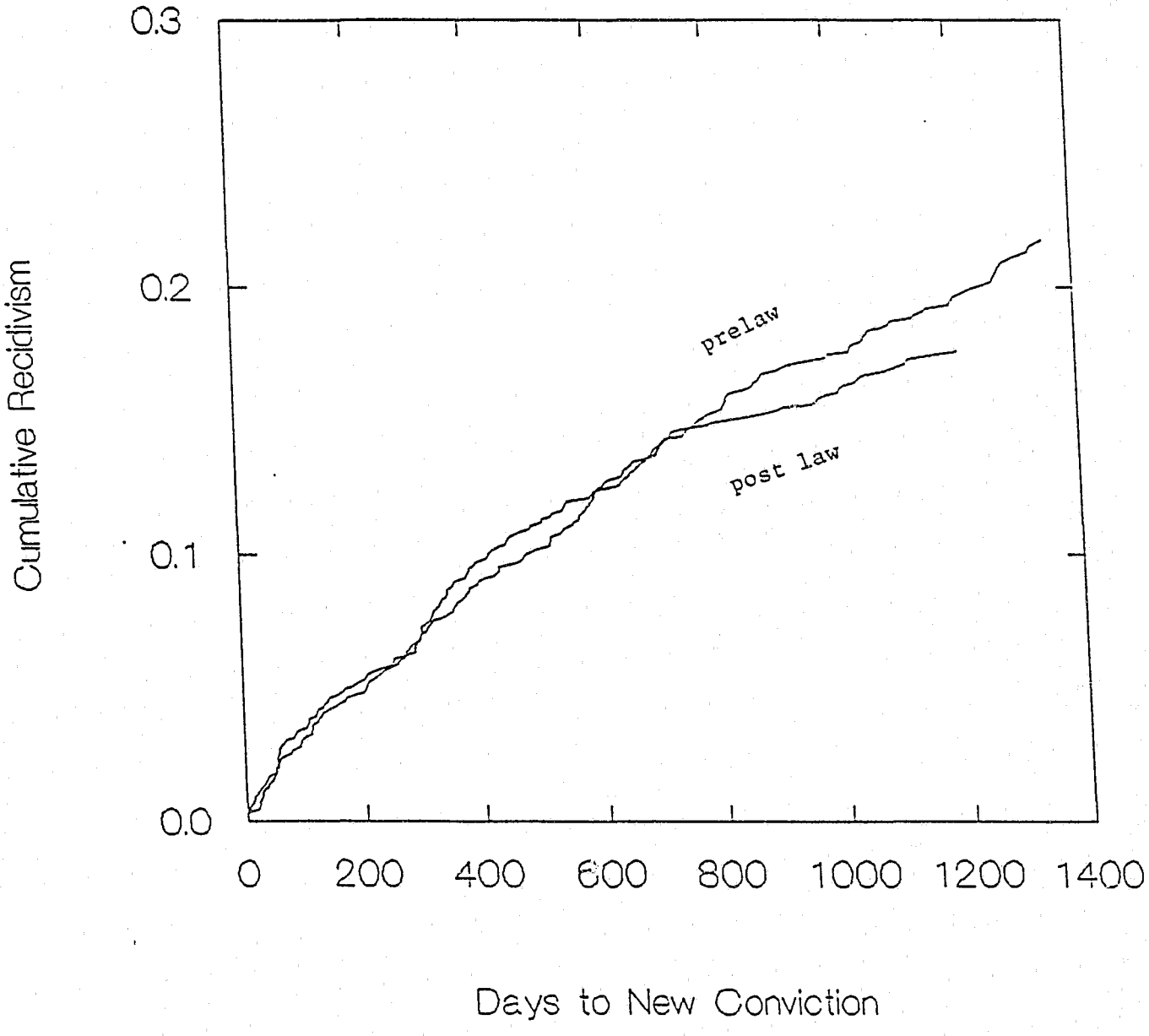

Table 3

Cox Proportional Hazards Regression Model:

First DWI Arrest to Next DWI Conviction

(Louisiana, N = 1757)

Covariate:	Estimate:	S.E.:	T:	p:
Sex	-.505	.243	-2.077	.0188
Race	-.104	.125	-.829	.2033
Age	-.021	.006	-3.692	.0001
BAC	4.993	1.144	4.363	.0001
Group	.267	.171	1.559	.0594
Conviction on Entry Offense*	.193	.153	1.262	.1038
Group by Pre-Conviction Interaction	-.615	.223	-2.758	.0029

*Whether or not a conviction occurred on the entry offense.

three years about 19% of the males and 12% of the females had been convicted of another offense. There were no significant differences in risk of recidivism between pre law versus post law groups or between those individuals arrested versus those arrested and convicted at the first offense.

The interaction term in the proportional hazards regression model between groups (pre law versus post law) and conviction status on the entry offense represents the differential effects of convictions before and after implementation of the administrative per se law. This effect in the model is highly significant, showing that convictions after the implementation of the administrative per se law significantly reduce the risks of subsequent DWI recidivism.

Figure 4 displays the differential effects of convictions for a drunken driving offense on subsequent DWI recidivism before and after the implementation of the administrative per se law in Louisiana. Individuals arrested and not convicted for a drunken driving offense are not included in this analysis. As the figure shows, by two years into the follow-up period the functions have diverged. At this point, about 15% of the pre law sample and 12% of the post law sample have been convicted of a new DWI offense.

As noted in the methods section above, there was some overlap of the follow-up period of the pre law sample with the implementation of the administrative per se law in Louisiana. This overlap occurred at from one to two years after the entry point of individuals into the pre law sample. An examination of the cumulative hazard functions underlying the recidivism rates in the sample of pre law individuals exposed to the potential legal consequences of drunken driving under the administrative per se law shows that risks of recidivism in this group approximate those of the post law sample. Figure 5 presents the log cumulative hazard plots for these three group of subjects. The upper plot presents the cumulative risks of recidivism for the pre law sample uncontaminated by exposure to the administrative per se law. The middle plot presents the cumulative risks for the post law sample. The bottom plot presents the cumulative risks for the pre law sample exposed to the administrative per se law. Over time it is clear that the cumulative risk of recidivism in this last group approximates the risk of the post law group, not the pre law group. This observation supports the evidence that the law reduces rates of recidivism.[4]

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[4]The overlap in follow-up between the pre and post law samples is such as to reduce the observed difference in recidivism rates between the two groups. Thus, the real differences between groups may be larger than the observed differences portrayed in Figure 4.

Louisiana Recidivism Analysis
DWI Convictions Only

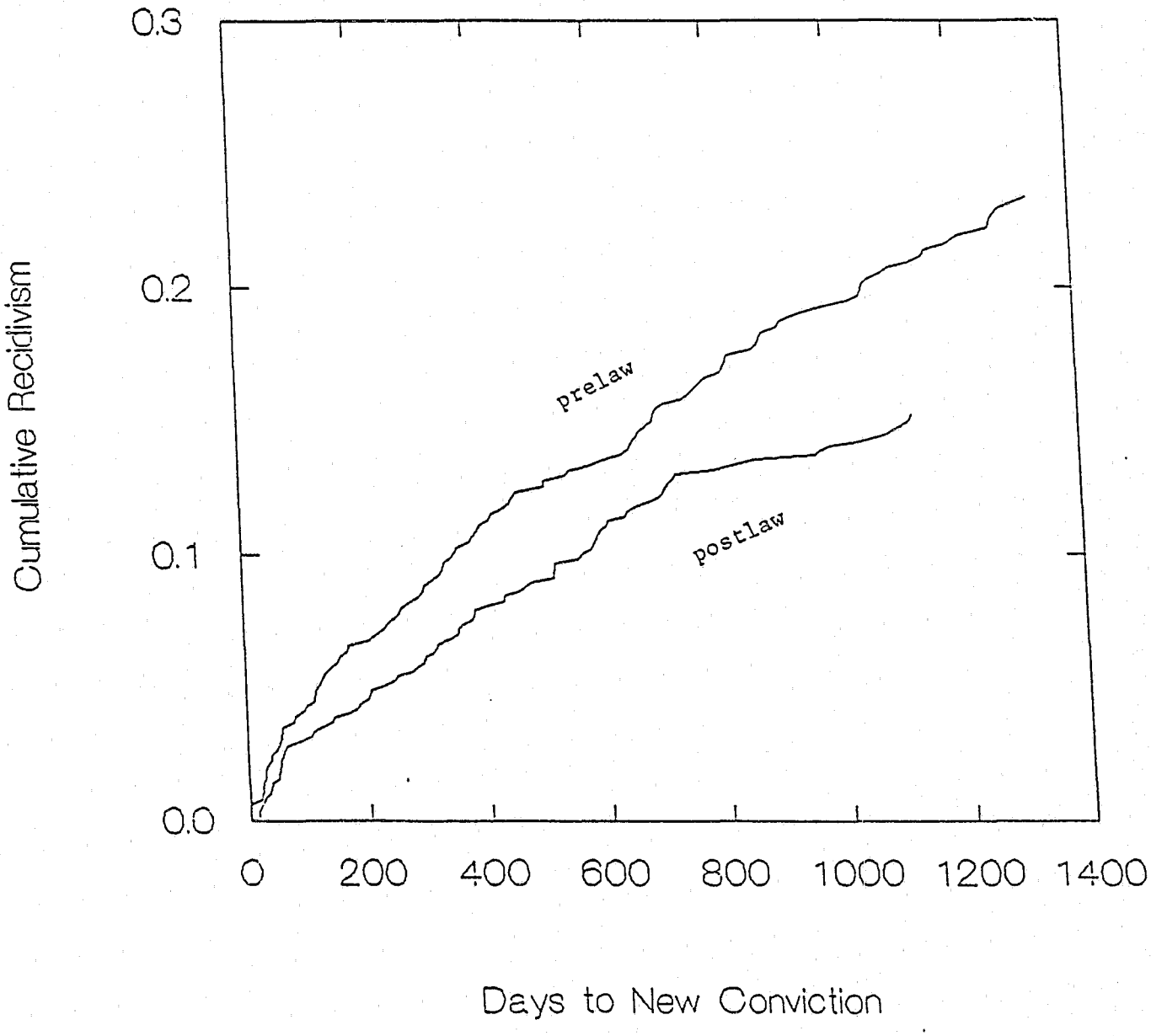
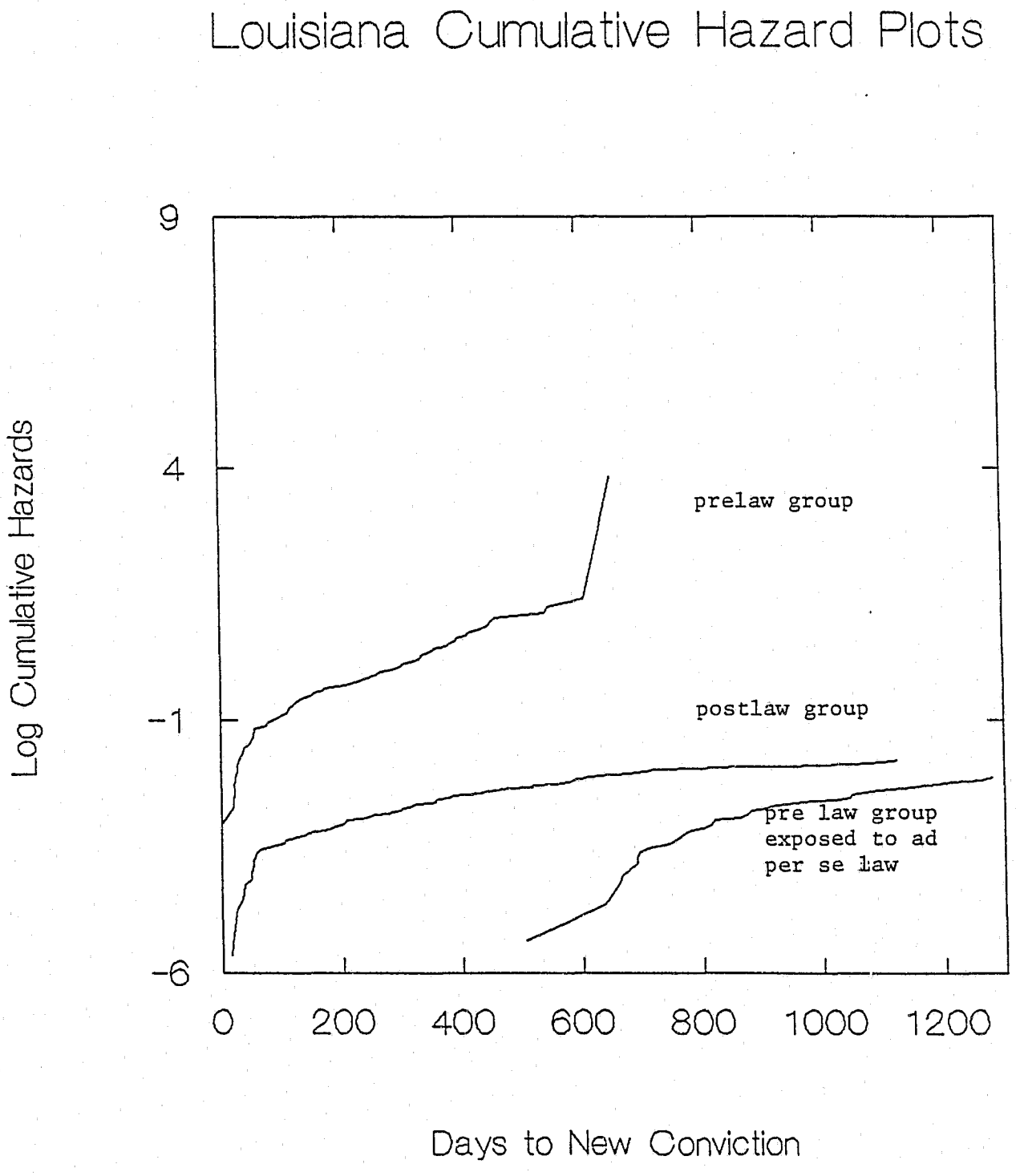


figure 5


Louisiana Cumulative Hazard Plots
9
4
-1
-6
Log Cumulative Hazards
prelaw group
postlaw group
pre law group
exposed to ad
per se law
0
200
400
600
800
1000
1200
Days to New Conviction

The analyses of the Louisiana data show that there are no differences in recidivism rates between the pre and post law samples when examined in terms of simple arrests for drunken driving. Examined more specifically in terms of convictions for a drunken driving arrest, however, a deterrent effect appears after implementation of the administrative per se law. This deterrent effect is also apparent in data from the pre law group exposed to the administrative per se law intervention.

NORTH DAKOTA

Demographic data available from the state of North Dakota included only the sex and date of birth of each offender. In the pre law sample 11.5% of the offenders were female, while in the post law sample this percentage increased to 16.1% (a significant difference, $X^2 = 12.91$, df = 1, N = 2999, p = .001). Individuals in the pre law sample were also slightly older than offenders from the post law sample (30.7 versus 30.2 years, a non-significant difference, t = 1.151, df = 2997, p = .250).

Figure 6 presents the Kaplan-Meier estimates of the cumulative failure functions representing re-convictions on a drunken driving offense for the pre and post law samples. In North Dakota a significant difference is apparent in the rate at which offenders committed subsequent offenses. After one year about 8% of the pre law and 5% of the post law sample have recidivated. After three years about 29% of the pre law and 17% of the post law sample have recidivated. The nonparametric Breslow-Gehan statistic, testing the difference in failure rates between groups, confirmed that a significant difference was present ($X^2 = 45.454$, df = 1, N = 2995, p = .001).

As for the other states, a Cox proportional hazards regression model was performed on these data testing whether significant differences appeared between pre and post law hazard rates when the differential effects of demographic variables were statistically controlled. The results of the overall proportional hazards regression appear in Table 4. They show that the sex of the offender was significantly related to risks of recidivism. The risk of recidivism was significantly lower among females than among males. After three years about 27% of the males and only 15% of the females had committed a new drinking and driving offense. There was also, as expected, a significant difference between rates of recidivism for the pre and post law samples.

These analyses show that after the change in the law, offenders go on to commit further drunken driving offenses at a lower rate in North Dakota. It should be noted that the reduction in recidivism continued well past the period of license suspension, indicating long term changes in driving habits on the part of offenders.

figure 6

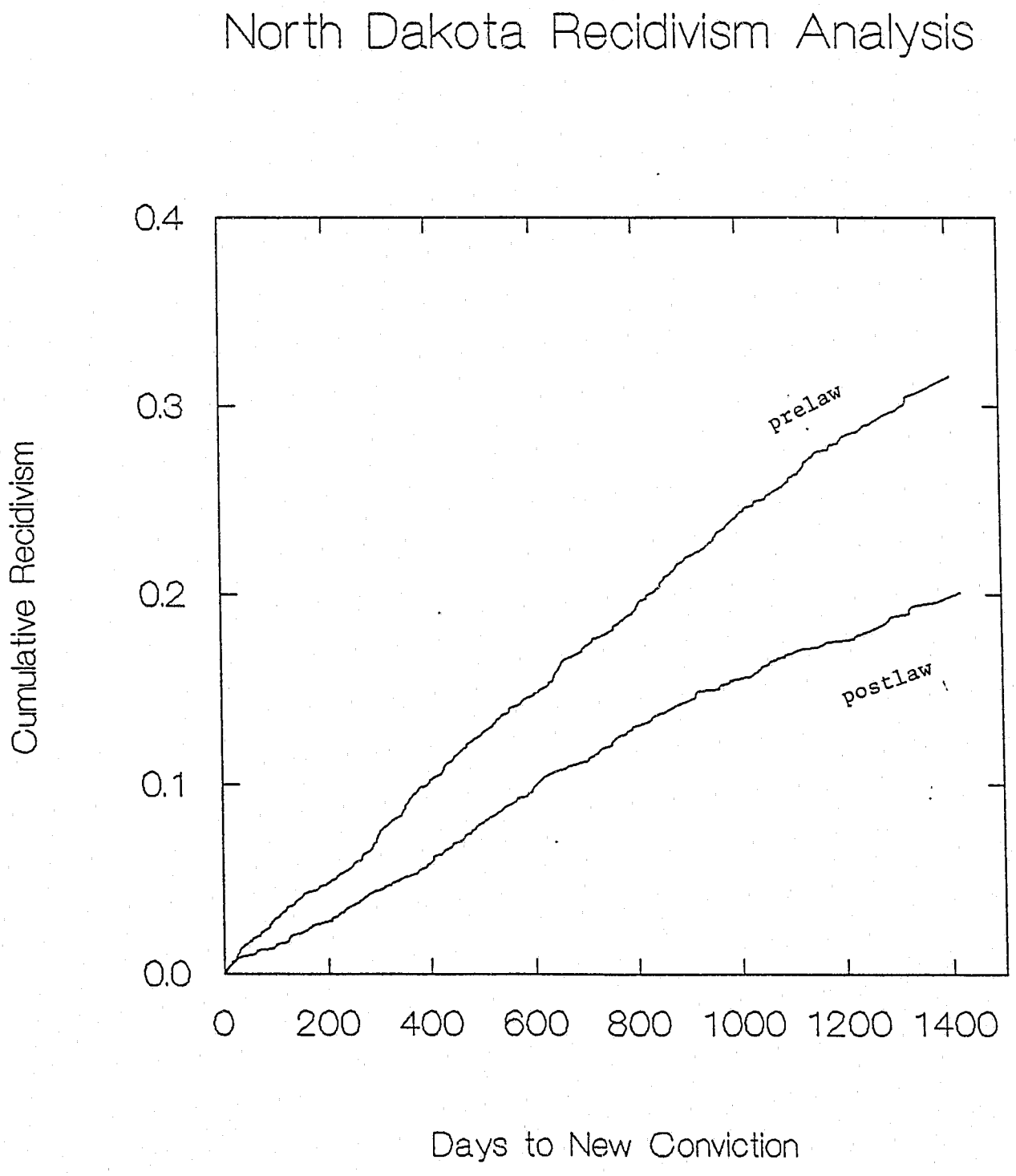

North Dakota Recidivism Analysis
0.4
0.3
0.2
0.1
0.0
Cumulative Recidivism
prelaw
postlaw
0
200
400
600
800
1000
1200
1400
Days to New Conviction

Table 4

Cox Proportional Hazards Regression Model:

First DWI Conviction to Next DWI Conviction

(North Dakota, N = 2995)

Covariate:	Estimate:	S.E.:	T:	p:
Sex	-.589	.136	-4.325	.0001
Age	-.004	.003	-1.410	.0793
Group	-.506	.077	-6.589	.0001

CALIFORNIA

As noted in the methods section, data from the state of California were used to provide baseline historical comparisons of recidivism rates from a state in which the administrative per se law was not implemented. The obvious expectation was that, when comparisons were made in recidivism rates between cohort years matching those in Mississippi, Louisiana and North Dakota, no differences in recidivism rates would be detected over corresponding historical intervals. Two separate analyses were conducted. The first matched the temporal intervals observed in the analyses of data from Mississippi and North Dakota. The second matched the temporal intervals observed in the analyses of data from Louisiana.

Comparison Samples for North Dakota and Mississippi. These comparison samples from California were developed in the same manner as those for North Dakota and Mississippi. Discussions of this process, and the exceptions unique to California, were presented in the methods section.

In California, demographic data were available on only the sex and date of birth of the offenders. In the pre law sample there were fewer females than in the post law sample (10.8% versus 13.1%, a non-significant difference, $X^2 = 2.59$, df = 1, N = 2154, p = .107). Individuals in the pre law sample also tended to be younger than individuals in the post law sample (32.9 versus 33.0 years, a non-significant difference, t = -.199, df = 2152, p = .843).

Figure 7 presents the cumulative failure functions estimated from the pre and post law samples. The Kaplan-Meier estimates show that there was little difference in recidivism rates. After three years, approximately 27% of the pre law and 22% of the post law samples had been convicted of another drunken driving offense. The Breslow-Gehan statistic confirmed that this difference was not significant ($X^2 = 1.949$, df = 1, p = .163).

Table 5 presents the results of the Cox proportional hazards regression using these data. Both the sex and age of subjects at their initial offense were strong predictors of recidivism. After three years 24% of males and only 18% of females had been convicted of another drunken driving offense. Older subjects exhibited lower risks of recidivism than younger subjects. Differences in recidivism rates between the pre law and post law samples remained non-significant, although the data do suggest a modest decline in recidivism rates over the sample intervals.

Comparison Samples for Louisiana. The comparison samples from California were developed in the same manner as those for

figure 7

California Recidivism Analysis:

North Dakota and Mississippi Comparisons

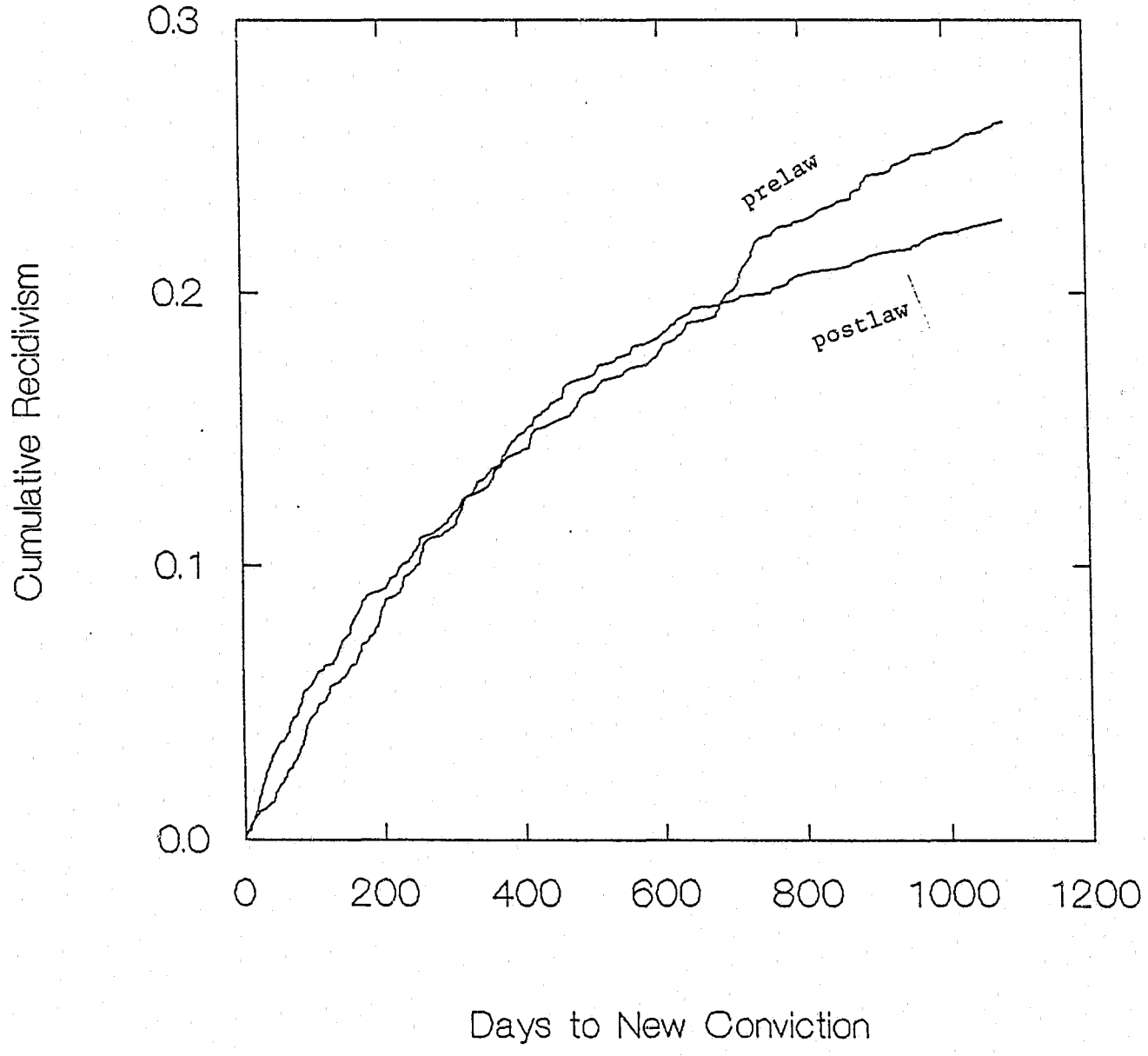


Table 5

Cox Proportional Hazards Regression Model:

First DWI Conviction to Next DWI Conviction

(California Match to Mississippi and North Dakota, N = 2154)

Covariate:	Estimate:	S.E.:	T:	p:
Sex	-.608	.166	-3.652	.0001
Age	-.014	.004	-3.265	.0005
Group	-.134	.087	-1.537	.0618

the Louisiana analysis based on conviction records for both the original and subsequent offenses. Because the California sample was drawn only on the basis of convictions, the appropriate historical comparison to the Louisiana data is with respect to recidivism rates measured from the initial conviction to the subsequent re-conviction (Figure 4). Discussions of the characteristics of this particular sample appear in the Louisiana results section. Explanations of the sample selection process, and the exceptions unique to California, were presented in the methods section.

In the corresponding California samples, demographic data were again available on only the sex and date of birth of the offenders. In the pre law sample there were fewer females than in the post law sample (14.5% versus 16.1%, a non-significant difference, $X^2 = .91$, df = 1, N = 1852, p = .341). Individuals in the pre law sample also tended to be older than individuals in the post law sample (32.7 versus 32.4 years, a non-significant difference, t = .519, df = 1850, p = .604).

Figure 8 presents the cumulative failure functions estimated from the pre and post law samples. The Kaplan-Meier estimates show that there was little difference in recidivism rates. After three years, approximately 22% of the pre law and 20% of the post law samples had been convicted of another drunken driving offense. The Breslow-Gehan statistic confirmed that this small difference was not significant ($X^2 = .400$, df = 1, p = .527).

Table 6 presents the results of the Cox proportional hazards regression using these data. Again, both the sex and age of subjects at their initial offense were strong predictors of recidivism. After three years 22% of males and only 17% of females had been convicted of another drunken driving offense. Older subjects exhibited lower risks of recidivism than younger subjects. Differences in recidivism rates between the pre law and post law samples remained non-significant.

Discussion

The results reported here indicate that administrative revocation can be an effective means of reducing recidivism among arrested drinking driving offenders. A specific deterrent effect of administrative per se laws seems indicated in both Louisiana and North Dakota. In these states, the post law samples recidivated less than the pre law samples. The decreases in recidivism continued well past the period of license suspension, indicating long term changes in the driving behavior of offenders. In addition, the data from California indicated that there were no contemporaneous historical changes in patterns of recidivism to which the observed significant differences could be attributed.

figure 8

California Recidivism Analysis:

Louisiana Comparison

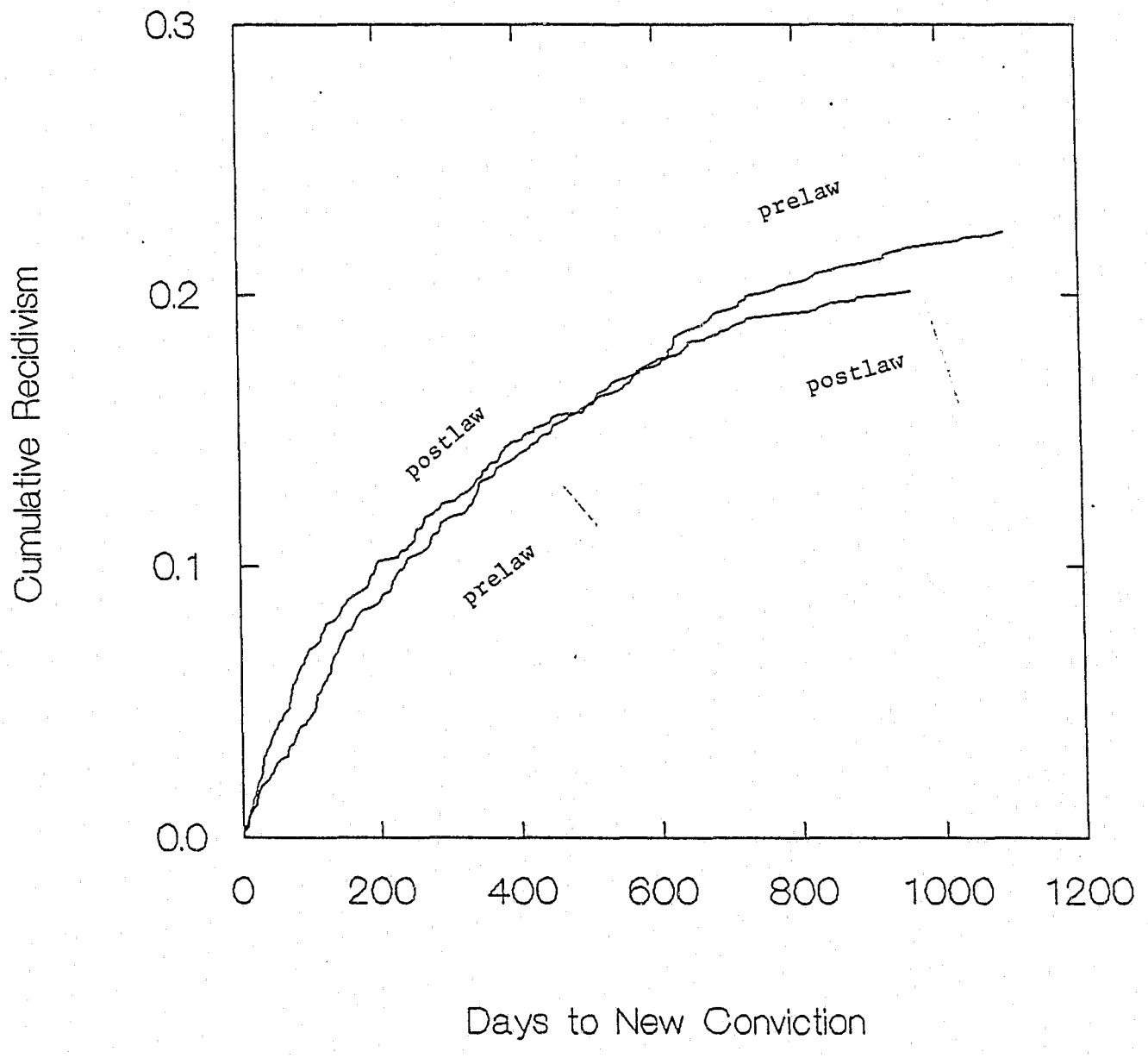


Table 6

Cox Proportional Hazards Regression Model:

First DWI Conviction to Next DWI Conviction

(California Match to Louisiana, N = 1852)

Covariate:	Estimate:	S.E.:	T:	p:
Sex	-.593	.171	-3.470	.0003
Age	-.012	.005	-2.434	.0075
Group	-.086	.101	-.845	.1977

Despite the failure to demonstrate a specific deterrent effect of the administrative per se law in Mississippi, data from this state suggest that administrative license penalties may make offenders more cautious drivers (as evidenced by convictions for other traffic offenses), bearing out self reports of offenders in previous studies (Ross and Gonzales, 1988). Thus, the license actions required by this state's administrative per se law do, at least temporarily, suppress the incidence of other driving offenses. It should be noted, however, that the effect of these license actions appears to be to temporarily suppress the appearance of these violations, not to reduce the subsequent rate of recidivism (see Figure 2). The pre and post law failure functions are virtually identical, although the latter is displaced in time from the former, reflecting the temporal delay in onset of recidivism with the implementation of the administrative per se law.

We can only speculate regarding why administrative revocation does not appear to have a specific deterrence effect in Mississippi and why the effects are small in Louisiana. One possibility is that some differences in recidivism may be obscured by a reporting artifact. In the pre law period in the states described above, arrests for drunken driving are not reflected in the driving record unless the arrest resulted in a conviction. In the post law period, the arrest would appear in the driver record if it resulted in license action, regardless of whether or not the judicial process resulted in conviction. Thus, it is possible that some of the offenders in the pre law sample were arrested subsequently without these arrests appearing in the driver record. This might also have occurred in the post law sample, but at a lesser rate.

In Mississippi and North Dakota, it is not possible to establish what proportion of arrests are ultimately recorded in the driver record. In the Louisiana sample this information is available, since the sample was selected from arrest records rather than from driver records. The sampling frame included all arrested drivers with Louisiana licenses who tested at a BAC of .10 or above or who refused to be tested. When their driver's records were retrieved, convictions for drunken driving were found on only 56% of the records of the arrested drivers from the pre law period. In the post law period, license actions were found on the records of almost 90% of the arrested drivers. This finding indicates that in the pre law period, 44% of arrested offenders who tested over the legal limit (or who refused testing) received no penalty for drunken driving (at least as indicated on the driver record). It must be assumed that either charges were not filed against them or that they were not convicted. In the post law period, only 10% of arrested drivers escaped without penalty.

This finding is important to the interpretation of the recidivism rates. It could be the case that some of the specific deterrence effects of the law are masked by the increased likelihood that an arrest would be reflected in the driver record. This finding is also important from the perspective of general deterrence. It has frequently been stated that general deterrence is primarily dependent on the public belief that committing an offense is likely to result in a penalty. Clearly, the implementation of administrative license suspension in Louisiana (and most probably in the other states with such laws) has greatly increased the probability that once arrested, offenders will be penalized.

LAW ENFORCEMENT STUDY

The potential for effects on the law enforcement agencies involved in the implementation of administrative per se laws is considerable. As discussed in the review of literature above, anecdotal reports from states which have the laws indicate that the change in the law has led to increased enthusiasm for enforcement. Officers are able to see that the arrest has had immediate consequences for offenders. On the other hand, evidence also exists that officers may not perceive the law as having a major impact on drunken driving. In addition, the law involves an increased record-keeping burden on enforcement agencies and may increase the offender's resistance to arrest. The requirement of testifying at hearings may also involve an additional burden on law enforcement officers.

In order to examine the subjective responses of law enforcement officers to the administrative license suspension law, a study of law enforcement was carried out in Louisiana. A sample of officers in leadership positions was interviewed and sample of line officers was surveyed by mail.

INTERVIEWS

Six officers in leadership positions were identified by the Alcohol Program Manager in the Louisiana Highway Safety Commission. The officers were selected because their positions made them particularly knowledgeable about drunken driving enforcement. The sampling strategy was purposive, including officers from the Louisiana State Patrol, city police departments and parish sheriff's offices in both urban and rural areas. Respondents were interviewed by telephone. The officers interviewed had between eight and twenty years experience in Louisiana law enforcement, with one to three years in their current position.

The DWI enforcement methods used in the different police agencies varied. Some agencies reported a very unagressive approach, making arrests in the case of crashes in which there was probable cause to believe alcohol was involved, or when routine patrols observed erratic driving. Other agencies employed special patrols (funded by NHTSA) during weekend and evening hours with the primary purpose of apprehending drunken drivers. Some agencies used road blocks to detect drivers under the influence of alcohol. Training of officers in the detection and apprehension of drunken drivers also varied. Some agencies provided no special training while in others, officers had received training in cues to detect intoxicated drivers and the use of horizontal gaze nystagmus as a field sobriety test.

Respondents reported the use of considerable individual discretion in deciding how much emphasis to place on DWI enforcement as opposed to other traffic enforcement. For example, one

officer said that he often did not even bother to ticket drivers who had committed violations but who did not appear to be intoxicated so that he would have more time to apprehend drunken drivers.

Responses varied regarding estimates of the additional paperwork involved with administrative suspensions. Some officers did not find a significant additional burden while others said that the burden was substantial and the process should be streamlined. Some reported that there was a general sentiment among officers that more paperwork is involved with arresting a drunken driver than with reporting a homicide.

There was general agreement that the change in the law had been sufficiently well publicized such that offenders know that their license will be taken. However, none of the respondents reported changed behavior on the part of arrested drivers because of the immediate license loss. They reported that drivers tend to be belligerent in any case because of the intoxication.

There were mixed reports regarding the problems associated with appearing at administrative hearings. Some officers said that scheduling of hearings caused problems. For example, if the officer was subpoenaed as a witness for a hearing scheduled when he was unable to be there, the charges would be dropped. One officer stated, on the other hand, that the hearing gave him an opportunity to review the case and practice testifying so that he could do a better job in a court appearance. Lack of overtime pay for testifying at hearings was named as barrier to testifying

Officers emphasized the degree to which prosecutorial practices affect their attitudes towards enforcement. For the most part, the officers felt that in recent years prosecutorial practices had improved regarding drinking drivers. They reported that there are still problems with prosecutors who show favoritism in the case of friends and prominent citizens, but, as one officer put it, "It's not like it used to be where anyone with a hundred dollars in his pocket could get out of it." However, the officers still felt that some prosecutors and judges were excessively lenient or made the officers' jobs more difficult. As one respondent put it, "The only difference between a defense attorney and a DA is an election."

Officers were especially disturbed by a lack of respect from the courts. "It doesn't matter how much you train them about how important enforcement is. If a guy has one experience where after he testifies he sees the DA and the defense attorney walk out of the courtroom laughing at him, that really takes the steam out of him." One officer was philosophical, saying that he couldn't be concerned about whether the DA was doing his job. He was only concerned about whether <u>he</u> was doing <u>his</u> job. He also

pointed out that he didn't expect to get a conviction every time because of the evidentiary gap between the "probable cause" required to make an arrest and the "beyond reasonable doubt" required to make a conviction.

Respondents emphasized the importance of good relationships with prosecutors, saying that if the prosecutors are confident that they have followed appropriate arrest procedures and can testify well in court, they will pursue cases that at one time would have seemed too risky. Adequate training is a key component, since officers must be knowledgeable about prescribed arrest procedures and required evidence.

The respondents did point out some problems in the law regarding hearings and prosecutions. One problem was that if an offender requested a hearing, the defense attorney was given a copy of the arrest report which they otherwise would not have access to. Therefore, some offenders requested hearings even if there was no reason to believe that the license penalty would be removed just so that their attorney would be able to review the arrest report in detail and find any technical flaws which could be attacked in a court trial.

The most frequently mentioned problem with the current law was that the penalties for driving without a valid license were not sufficiently severe. Therefore, even though the administrative penalty is consistently applied, it may not be a sufficient deterrent for some offenders since they can continue to drive without a license with relative impunity. Another problem mentioned was that the current law encourages test refusal for repeat offenders. While the penalty for refusal on a first offense is longer than the penalty for first offense drunken driving, the penalty for a second drunken driving offense is greater than for test refusal. Thus, the officers reported that the habitual drunken driver is much more likely to refuse testing and therefore elude the most serious penalties.

In contrast to the general sentiment that penalties are too lenient, one officer did say that he thought that hardship driving permits should be more readily available. He pointed out that some people need to be able to drive in order to work. "The punishment should be the same for everyone, and here you have some people who pay a fine and put up with some inconvenience and then there's this other guy who loses his job. That's not equal punishment."

Despite these problems, the respondents' attitudes towards the law were primarily positive. "It makes my job so much more enjoyable to be able to yank that license, because you know that it's a penalty that scares people--more than the fine, more than picking up the garbage. . . . We used to say, 'you can beat the rap but you can't beat the ride,' meaning that even if the DA and

the judge let you down, at least you gave the guy something to think about. Now they get to watch you take that license. Sometimes I ask them if they want to kiss it goodby."

Some of the officers also believed that the implementation of the law has had a general deterrence effect, saying that it was harder to find drunken drivers now. One officer said that he used to worry that if he didn't arrest a few drunken drivers on each shift that he wasn't doing his job. "Then I realized that it's not because I'm not doing my job, it's because I have been doing my job. We've all been doing our jobs. Me, the DA's, the judges, the news media, all of us."

SURVEY OF LINE OFFICERS

As part of the telephone interview described above, the officers in leadership positions were asked if they would be willing to distribute a written survey to the other officers in their agencies. All agreed to do so. Out of an estimated 200 officers at the six different agencies, 73 questionnaires were returned. A listing of the types of agencies surveyed and the return rate from each appears in Table 7.

TABLE 7

AGENCY TYPE	SURVEYS SENT	SURVEYS RETURNED
State Police	40	23
City police dept.	80	23
Sheriff dept. in urban county	30	10
Sheriff dept. in rural county	10	7
Small city police dept.	50	10
	210	73

In general, the attitudes of the line officers seemed somewhat less enthusiastic than the attitudes of the officers in leadership positions. About half (52%) of the officers thought that the law had not been very well publicized while only 21% thought that it had been sufficiently publicized. The remaining

respondents took a neutral position. Only about half (52%) of the respondents thought that people in general would be deterred from drinking and driving because of the administrative suspension law. As far as specific deterrence, 63% thought that the law would have some effect on recidivism.

One problem which was anticipated to cause complaints among line officers was increased paperwork associated with arrests and a consequent increase in the time to process an arrest. Over half (56%) of the respondents said that the change in the law had increased the length of time required to process a drunken driving arrest. Of those who said that it had increased the length of time, the average increase reported was 23 minutes.

Another anticipated problem was the necessity for officers to testify at administrative hearings. In fact, most officers (60%) had not testified at a hearing in the previous year and an additional 23 % had appeared at only one or two hearings. Of those who had appeared, there were frequent complaints that the appearances took away from their time off or else took them away from enforcement duties. In addition, there were complaints that no compensation was given for these hearing appearances.

Despite these reported problems, about half (53%) of the respondents reported that the change in the law had no effect on their enthusiasm towards making DWI arrests, while 34% reported that it had increased their enthusiasm. The remaining 11% reported that administrative suspension had decreased their enthusiasm. Most respondents (58%) reported that the attitudes of their fellow officers were generally positive towards the law. An even higher percentage (63%) reported that they themselves had a generally positive attitude. Only 15% of the respondents said that fellow officers had a negative attitude and 16% said that they themselves had a negative attitude.

When asked to identify the major benefits of the law, officers mentioned the immediacy of punishment, improved general deterrence (especially among social drinkers, as opposed to alcoholics whom, it was felt, would not be affected by the law) and the removal of some drinking drivers from the road. Frequently mentioned problems with the law were that the penalties are still too light and that offenders continue to drive on suspended licenses.

When asked how the law could be improved, frequently mentioned improvements were more well designed streamlined forms to decrease paperwork, stiffer penalties, including increased use of jail sentences and increased penalties for driving under suspension.

SUMMARY AND CONCLUSIONS

Based on this small sample of law enforcement officers in Louisiana, it appears that for officers in leadership positions in drinking/driving enforcement, the law is viewed with quite a bit of enthusiasm. Line officers are more restrained in their enthusiasm. Both groups of officers identified a number of problems with the law. Some of these problems are directly related to the work done in enforcement. In most cases, these problems could be solved by minor adjustment in the legislation or in departmental policies. For example, paperwork could be streamlined and funds could be allocated to pay officers for hearing appearances. (In fact, these funds were recently made available in Louisiana.) Other identified problems have to do with officers' perceptions of what would increase specific and general deterrence. For example, officers believe that increased penalties for driving with a suspended license would decrease recidivism and possibly improve general deterrence. It is not known whether such changes in penalties would bring about the desired effects. These changes could only be brought about by more major legislative action.

CONCLUSIONS AND RECOMMENDATION

Administrative license penalties provide an easily applied and appropriate sanction for drunken driving. In the states included in this study, administering the law has not presented major difficulties. The states seem to have implemented reasonably efficient processing of offenses and hearing procedures. Law enforcement officers had some complaints about their role in implementing administrative license penalties and some reservations about their effectiveness in reducing drunken driving. However, over one third of the officers surveyed said that the change in the law had increased their enthusiasm for arresting drinking drivers and only 11% said that the change had decreased their enthusiasm.

Therefore, it would appear that administrative license penalties have not caused significant problems in the study states. Moreover, findings from the study in Louisiana indicate that the law seems have the desired effect of increasing the swiftness and certainty of punishment in that a much higher proportion of offenders receive some sort of sanction for drunken driving under the new law than under the previous law. It appears that, in this state at least, administrative penalties are effective in eliminating much of the capriciousness with which judicial penalties are often applied.

The study did reveal some aspects of the law which can cause difficulties. First, problems with evidence or hearing procedures can allow some offenders to circumvent license actions. Improved training of law enforcement officers and fine tuning of administrative processes can alleviate these problems. Second, cumbersome paperwork can reduce the enthusiasm and effectiveness of law enforcement. This problem can be addressed through careful design of reporting processes and training of officers in their use.

From a traffic safety perspective, the results of the recidivism study are encouraging. In two out of the three states studied, the law has significantly decreased recidivism. In North Dakota, where the effect was the greatest, the three year recidivism rate decreased from 29% to 17%. This finding, combined with previous studies which have shown the general deterrence effectiveness of administrative license penalties should provide convincing evidence that such laws are valuable countermeasures which can reduce the number of intoxicated drivers on the roads and thus the number of alcohol-related crashes and deaths.

Administrative license is also highly appealing from the perspective of fairness and justice. The use of reasonable and appropriate penalties, consistently applied, is a worthwhile social goal. Administrative license revocation seems to take a large step towards that goal.

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