An Assessment of Alternative Sanctions for DWI Offenders

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ABSTRACT

In this study, two alternatives to incarceration as punishment for DWI were evaluated using quasi-experimental designs. Recidivism rates for repeat DWI offenders receiving intensive supervision probation with treatment or in-home confinement with electronic monitoring were compared with offenders receiving the traditional jail sanction in Milwaukee, Wisconsin and Los Angeles County, California respectively. After adjusting for other factors associated with recidivism, it was found that those offenders receiving the alternative sanctions experienced lower one-year recidivism rates than their comparison groups.

INTRODUCTION

Repeat DWI (driving while intoxicated) offenders are a continuing traffic safety problem. About a third of all drivers arrested or convicted of DWI each year are repeat offenders, according to data gathered from 12 states. And one out of eight intoxicated drivers in fatal crashes has had a prior DWI conviction within the past three years [Fell, 1995]. The increasing problem of jail overcrowding often puts judges in the difficult position of trying to reduce recidivism, and overcrowding, without knowing which alternative sanctions are effective.

The National Highway Traffic Safety Administration [Jones, Wiliszowski, Lacey, 1996] conducted a study to examine the effectiveness of two alternative programs for repeat offenders -- an intensive supervision probation (ISP) program in Milwaukee, Wisconsin, and an electronic monitoring (EM) program in Los Angeles County, California.
The Milwaukee County Pretrial Intoxicated Driver Intervention Project became operational in 1992. It is coordinated by the Wisconsin Correctional Service (a non-profit corporation) in cooperation with the District Attorney’s office. The program is a pre-trial program aimed specifically at putting repeat DWI offenders in treatment shortly after arrest, with ongoing monitoring and supervision throughout the pretrial period.

By participating in the program, offenders are offered (but not guaranteed) the hope of a reduced jail sentence. The program tries to reduce impaired driving by addressing the drinking habits and drinking problems of its clients. It provides frequent, regular monitoring of clients in combination with an individual assessment of their needs and referral to appropriate treatment providers. Most offenders contact their monitor twice a week, but the number of contacts will vary depending upon individual needs and time in the program. The average stay in the program is 4-5 months. The program has a capacity of about 50 new clients per month.

The Los Angeles County Electronic Monitoring/Home Detention Program is coordinated by the Los Angeles Pretrial Services Division. This program also became operational in October 1992. The program is for repeat DWI offenders (and also other non-violent offenders) immediately after conviction and sentencing. Eligible offenders are sentenced to home confinement enforced by electronic monitoring devices in lieu of active jail sentences. The nature of the restrictions vary by client. For instance, some are allowed to leave home for work or school. The offenders are contacted at random three to four times per day to verify their presence at home. Some are required to provide breath samples to verify that they have not been drinking. The average cost per day to participate in the program is $15, but is paid on a sliding scale. Average home confinement duration for the study group was 83 days. The program has caseload of 40 to 50 repeat DWI offenders per month. Both the ISP and EM programs are still operating.

METHODS

The major focus of the evaluation of these programs was their effect on the future drinking-driving behavior of program participants, that is, the program impact. The measure used for future drinking-driving behavior was the time from a client’s entry in the program to another
arrest or conviction for an alcohol-related traffic violation.

The primary technique used for the impact analysis was survival curve analysis. This technique allows the study of complex time patterns of recidivism, for example, a recidivism rate that is initially low, but higher later. The formal factor reflecting the evaluation design was a variable indicating whether the subject belonged to the treatment group or the comparison group. Factors available for use in controlling for differences between the treatment and comparison groups (that is, the analytical «matching» of the two groups) were number of prior alcohol-related driving offenses, age, sex, race, marital status, the jail sentence imposed for the index offense, and the fine imposed for the index offense. Of course other factors may also influence recidivism and the fact that we were not able to control for all such factors is a limitation of this type of study design.

In the survival analysis, the time from conviction of the index offense to the first «failure» (for example, an arrest for DWI) was used as the dependent variable. The time-varying recidivism (that is, probability of a failure) as a function of group (treatment or comparison) was of primary interest. The analysis was designed to indicate whether there was any difference in recidivism with respect to group and if so, the direction and amount of the difference, and also the probability \( p \) that the difference was due to chance alone. The analysis also ascertained whether various subgroups (for example, young drivers and old drivers) had differing recidivism times with respect to group. The statistical techniques contained in the SAS® LIFEREG and PHREG procedures were used in the analysis.

As a secondary analysis technique, logistic regression analysis was used. This was done mainly as a check on the survival analysis. Here, the dependent variable was a function of the probability that a subject will have recidivated after some given time, \( T \), where \( T \) is held constant for a given analysis. Again, recidivism probability as a function of group (treatment or comparison) was of primary interest, but the recidivism probability of various subgroups of the treatment and comparison groups were also of interest.

In addition to the recidivism data, the «bottom line,» or cost-effectiveness of the programs relative to traditional sanctions, especially incarceration was examined. Cost estimates for the programs were obtained from the program management staff, and estimates for jail costs were
obtained from correctional agencies.

RESULTS

MILWAUKEE INTENSIVE SUPERVISION PROBATION PROGRAM - Impact Analysis -
In Milwaukee, a total of 506 of the treatment group subjects were listed in the DMV driver records file. The comparison group contained 1,452 subjects and differed significantly from the treatment group with respect to three characteristics (age, race, and number of priors), confirming our suspicion that group differences would have to be taken into account in the analyses. Compared to the comparison group, the treatment group was slightly older, had a larger percentage of non-whites, and had a larger percentage of drivers with three or more priors.

A large number of analyses were performed. The primary analyses used the survival analysis technique and were based on the arrest data from the DMV. Arrests classified as alcohol-related (including DWI as well as a number of other offenses) were used in determining recidivism time. Additional analyses were run for DWI offenses only. The study period for recidivism was November 12, 1992 (the date the first subject entered the ISP program) through December 12, 1994 (the cutoff date for the DMV data). The index date for a given treatment-group subject was the date that subject was admitted to the ISP program. The index date for a given comparison subject was the date of that subject's first arrest occurring on or after August 14, 1992, an arbitrary date chosen to make the arrest exposure-period of the comparison group comparable to that of the treatment group. Recidivism time for each subject was computed as the time between the index date and the date of the first subsequent alcohol-related arrest (or first DWI arrest).

Using raw data, the one-year recidivism for the treatment group was 5.9% compared to 12.5% for the comparison group. These differences are highly significant \( p=0.0001 \), where \( p \) is probability that the difference was due to chance alone, but do not account for any possible differences in the characteristics of the two groups which may influence recidivism.

Therefore, the recidivism data were examined analytically to see which characteristics significantly affected recidivism and to make appropriate adjustments to the recidivism of the
two groups to account for such characteristics. Characteristics studied were: age, sex, race, marital status, number of prior alcohol-related driving offenses, the jail sentence imposed for the index offense, and the fine imposed for the index offense. Both the LIFEREG and the PHREG procedures were used and gave essentially the same results.

Characteristics of the subjects found to have a significant effect on recidivism were group (treatment or comparison), age, number of priors, and length of jail sentence. All of these had $p$'s in the 0.0001 - 0.002 range, and all of the non-significant factors had $p$'s in the 0.30-0.40 range.

Figure 1 shows the modeled recidivism of the treatment group compared with that of the comparison group when the other significant independent variables are set at their mean values, i.e., age=36, priors=2.5, and jail sentence=64 days. With these adjustments, the one-year recidivism for the treatment group becomes 5.6% compared to 10.7% for the comparison group ($p=0.0002$). The secondary analysis using logistic regression yielded essentially the same results.
Program Cost - Cost figures for the first year of ISP operation were estimated by the Wisconsin Correctional Service (WCS) which administered the program. It found that the total project costs for that year amounted to $227,000. WCS also compared the jail sentences of the first 216 program participants with the sentences of non-participants. For the groups compared, a total of 4,598 days of jail time were saved by the program.

DWI offenders are held in the Milwaukee County House of Corrections which calculated its daily cost per inmate at $28.26. Thus, the gross savings in jail costs were 4,598 * $28.26 or $140,113. However, about two-thirds of the offenders were employed (on work-release) during their incarceration and had to pay the House of Corrections $15.00 per day. This reduced the savings in jail costs to $90,593.

Thus, the program costs for the first year of operation were about 2.5 times the jail costs saved by the program. Undoubtedly, some of the program costs could be attributed to start-up, but it seems highly unlikely that deducting start-up costs would make the program costs balance the savings in jail costs. The ISP program has begun assessing program participants on a sliding scale fee based on their ability to pay to defray the cost of their participation. The program is scheduled to become self-sufficient in 1996.

LOS ANGELES COUNTY ELECTRONIC MONITORING PROGRAM - Impact Analysis -
A total of 639 of the 712 treatment group subjects were listed in the DMV driver records file. The comparison group contained 18,419 subjects and differed significantly from the treatment group with respect to three characteristics, indicating that group differences would have to be taken into account in the analyses. Compared to the comparison group, the treatment group was slightly older, had a larger percentage of females, and had a larger percentage of drivers with three or more priors. In Los Angeles County some courts rarely used the EM program for DWI offenders. Recidivism rates for non-EM offenders from courts which rarely or never used EM for DWI offenders were compared with those from courts which used EM more frequently. Those rates essentially did not differ and the two groups were combined to form the final comparison group.

A large number of analyses were performed. The primary analyses used the survival analysis technique and were based on the arrest data from the DMV. Convictions classified as alcohol-
related (including DWI as well as a number of other offenses) were used in determining recidivism time. The study period for recidivism was October 1, 1992 (the date the first subject entered the EM program) through August 28, 1994 (the cutoff date for the DMV data). The index date for a given treatment subject was the date that subject was admitted to the EM program. The index date for a given comparison subject was the date of that subject's first conviction occurring on or after June 30, 1992. Recidivism time was computed as the time between the index date and the date of the first alcohol-related conviction.

Using raw data, the one-year recidivism for the treatment group was about 3.4% compared to 6.0% for the comparison group. These differences are statistically significant ($p=0.01$), but, again, do not account for any possible differences in the characteristics of the two groups which may influence recidivism. Further analyses were conducted taking into account group differences. Characteristics studied were: age, sex, number of prior alcohol-related driving offenses, and a variety of the variables contained in the ZIP-code file.

Characteristics of the subjects found to have a significant effect on recidivism were group (treatment or comparison), age, sex, household income, percent with at least a high school diploma, and percent Asian. Number of priors was not significant.

Figure 2 shows how the modeled recidivism of the treatment group compares with that of the comparison group when the other independent variables are set at their mean values, i.e., age=35, priors=2, household income=$35,000, percent with at least a high school diploma=46, and percent Asian=9. Subject sex was treated as a 0-1 variable in this analysis, with male=1, female=0, and mean =0.936. With these adjustments, the one-year recidivism for the treatment group becomes 4.3% compared to 6.1% for the comparison group.
Program Cost - The Los Angeles County EM program was designed to be self-sufficient, with the clients paying the cost of the monitoring. Thus, the primary potential cost of the program to the County was limited to the salaries and office space for no more than five full-time equivalent County employees. The private contractors who provided the EM services reimbursed the County for the salary costs of the County employees. The remaining minimal cost was outweighed overwhelmingly by the reduction in the cost of jail time realized because of the substitution of EM for jail. The average time each client from the treatment group studied in this project spent in the EM program was about 83 days, with no additional time spent in jail. At a cost per day of about $50 (Los Angeles County estimate), this would amount to a savings of about $2.7 million had the 639 clients spent the same amount of time in jail. At the more likely level of an average of 30 days in jail the savings would have been nearly $1 million for this phase of the program.

DISCUSSION

Two alternatives to jail for repeat DWI offenders were studied in this project. The first program, operated in Milwaukee County, Wisconsin, is an intensive supervision probation program. The program involves an in-depth assessment of each client's drinking-related problems, referral to a tailored treatment regimen, and regular and frequent monitoring and supervision of the client during the pre-trial period.
The second program, operated in Los Angeles County, California, uses home detention with electronic monitoring as substitute for a jail sentence.

Both programs were effective in reducing recidivism significantly. The ISP program in Milwaukee County reduced a moderate alcohol-related arrest recidivism rate by about one-half, from about 11% to 5.5% after one year. The EM program reduced a low alcohol-related conviction recidivism rate by about one-third, from 6% to 4% after one year. If all of the 506 ISP subjects studied had not participated in the program and received traditional sanctions, we would expect that 28 more of them would have been re-arrested for an alcohol-related traffic offense within one year of their index arrest. Similarly, if the 639 EM subjects studied had not participated in the program and received traditional sanctions, 12 more of them would have been re-convicted for an alcohol-related traffic offense within one year of their index arrest.

Contacts with program staff and clients provided some insights into why the two programs were successful in reducing recidivism. The most compelling of these was that the programs «watched over» their clients for an extended period of time, providing structure, support, and guidance. In addition, participation in the EM program provided a degree of incapacitation which effectively prevented drunk driving.

The ISP program was not designed initially to be self-sufficient from a cost standpoint, and related costs resulting from reduced jail time did not outweigh the cost of the program. Data suggested a net cost of about $91,000 for the first 216 clients entering the program, or an average of about $421 per client. However, the program providers plan to make the program self-sufficient in mid-1996 by having the clients pay for ISP services on a sliding scale based on ability to pay. The Los Angeles County EM program was designed to be self-sufficient, with the clients paying the cost of the monitoring. Data suggested a substantial savings in jail costs for the 639 offenders tracked in this project.

Both Intensive Supervision Probation and Electronic Monitoring offer viable alternatives to jail for repeat DWI offenders. The two approaches do not present any serious operational problems, and appear to be amenable to tailoring to meet the unique needs of a jurisdiction.
For example, the ISP program as implemented in Milwaukee County should also work in a post-conviction mode, with the final determination of the length of any jail sentence to be made after the successful completion of the program.

Combinations of the two programs also appear feasible, for example, a variant incorporating electronic monitoring for higher-risk clients in an ISP program. Both Intensive Supervision Probation and Electronic Monitoring should be considered seriously by jurisdictions desiring to reduce the pressures on their correctional facilities and, at the same time, to increase the traffic-safety effectiveness of their traffic law system.

REFERENCES


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