EDUCATION/TREATMENT INTERVENTION AMONG
DRINKING DRIVERS AND RECIDIVISM

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ABSTRACT

Beginning in October of 1979 the Colorado State Legislature mandated that all drivers convicted of drinking and driving would be evaluated prior to sentencing to determine the extent of their substance abuse. Based upon this evaluation, certified Alcohol/Drug Evaluation Specialists (ADES) could make referral recommendations to any of three possible education/treatment interventions or a combination of education and treatment.

The present study was designed to assess and report on the features of this process and its outcome, including the profiles of clients sentenced to each intervention, differences among interventions according to client type, differences between demographic subgroups, education/treatment success rates and, most importantly, recidivism according to intervention and client profile. Recidivism was defined as rearrests for drinking and driving subsequent to the arrest which brought the individual into the study.

A total of 3,498 subjects were randomly selected throughout Colorado's 22 jusicial districts from the data base furnished when ADES evaluate convicted drinking drivers. The population was drawn two to three and a half years after the arrest which lead to the evaluation. Information on their evaluation/treatment participation and termination status was subsequently provided by the district which monitored their probation. Driving histories, before and after the focal point arrest, were then obtained from the Division of Motor Vehicles. The final data set thus included demographics, arrest information, alcohol severity, referral recommendations, judge's case dispositions, actual participation, education/treatment termination status and recidivism.

Overall, ADES and judges agreed on nearly nine out of every ten cases seen regarding client disposition. The most notable area of disagreement occurred in the no education or treatment referral area where approximately one-half went to jail instead. As expected, clients differed greatly according to the intervention in which they were sentenced. Client severity, in rank order from the most to the least severe, was as follows: Level II Treatment and Therapeutic Education, no referral to education/treatment, Level II Therapy, Level II Therapeutic Education, and last, Level I Education. Demographic differences among interventions were also noted, as were differences between demographic groups according to client severity.

A rather surprising finding was the observation that clients did not always participate in the intervention to which they were sentenced. In fact, referrals to Level II Therapy rarely entered this modality as the majority enrolled in Level II Therapeutic Education. The most plausable explanation for such a discrepancy was the lack of understanding and consensus in the field between these two interventions when the program first began.

-i-

In all, 84% of the clients sentenced to an intervention successfully completed it although ADES' involvement was required in one out of every four cases. Greater success rates were found in interventions of less intensity where the less severe client was sentenced. Success rates, from the most to the least successful, were: Level I Education (95%), Level II Therapeutic Education (93%), Level II Treatment (84%) and, finally, Level II Treatment and Therapeutic Education (79%). Demographics were also found to relate to success in education/ treatment. Overall, the most meaningful predictors of success were, in order of predictive power: The Mortimer-Filkins, prior arrests, indigence status, sex and education.

Analyses of recidivism data revealed that 90% of the subjects in the study were not rearressted for drinking and driving during the two to three and a half years they were at risk. Expectedly, less severe clients were less likely to become recidivists. The recidivism rate was greatest for those subjects referred to education and/or treatment but who failed to enroll. Unexpectedly, they were followed on this criterion by those not referred to and enrolling in an intervention, whether or not it was successfully completed. The best predictors of rearrest for drinking and driving were, in rank order, as follows: education/treatment termination status, the Mortimer-Filkins, whether or not the client was Black, blood alcohol concentration when first arrested, marital status, conviction charge, and whether or not the subject was Native American.

These results were viewed as very compelling in their support of education and/or treatment alternatives for drinking drivers. Based upon these findings recommendations for future action were proposed, including the requirement that every convicted drinking driver be referred to an appropriate intervention.

TABLE OF CONTENTS

TABLES

ACKNOWLEDGEMENTS

EDUCATION/TREATMENT INTERVENTION AMONG
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Robert Booth, Ph.D.

Prior to 1970 there were few, if any, alternatives available to the judiciary in regard to rehabilitative sanctions for alcohol involved traffic offenders. Fines, jail, and license restraints were the approaches typically utilized. However, since 1971 screening, referral and education/treatment programs have proliferated with the overall goal of rehabilitating these offenders (Jones and Joscelyn, 1978).

Criteria to measure the effectiveness of education/treatment alternatives have included changes in knowledge and attitudes, changes in lifestyle as related to drinking behavior and traffic safety measures (i.e., subsequent offenses and/or accidents involving alcohol). While these latter criteria have their problems in that they measure only detected or observed deviance (Black and Reis, 1970), they are, from both the court's as well as from the public's perception, perhaps the ultimate measure of success.

The following paper utilized rearrest for drinking and driving as recorded by the Division of Motor Vehicles as the measure of recidivism for drinking drivers. Of particular concern was the analysis of recidivism according to type of intervention (i.e., Level I Education, Level II Therapeutic Education, Level II Therapy, Level II Therapeutic Education and Therapy, none required), recognizing the fact that different client profiles would be reflected in different interventions. Also of interest was an assessment of the relationship between a host of independent variables (e.g., arrest data, severity, demographics) and recidivism. It should be noted that this was not a "controlled" study in the sense of assignment of subjects to interventions or the comparibility between interventions, but rather an attempt to assess the "normal" process that takes place in determining the needs of drinking drivers and those events which subsequently occur.

Since October 1, 1979, all drivers convicted, pleading guilty or no contest, or receiving a deferred prosecution of sentence for an alcohol related traffic offense must be evaluated to determine the extent of their substance abuse. This procedure is mandated by statute and is performed prior to sentencing. The evaluations are conducted by individuals trained and certified by the Colorado Department of Health's Alcohol and Drug Abuse Division and work by contractual agreement through the Judicial Department's probation offices.

The evaluation process evolves around a structured interview in which the defendant's written responses to diagnostic instruments, including a drinking/drug history questionnaire, the Mortimer-Filkins and a background questionnaire, are discussed. Blood aclohol concentration, prior arrests/convictions and prior alcohol or drug education/treatment experiences, along with other variables, are utilized to assess the extent of use and abuse. After completion of the evaluation the defendant is categorized as either a problem, incipient problem or social user. The classification criteria are as follows.

Problem Drinker/Drug User

A. A client who exhibits any one of the following indicators:

   1. Two or more previous alcohol/drug related arrests and/or convictions
   2. BAC of greater than .25
   3. Loss of control of alcohol/drug use
   4. Self admission of problem drinking/drug use
   5. Prior diagnosis of problem drinking/drug use by a competent authority
   6. Organic brain disease associated with alcohol/drug use

B. A client who exhibits two or more of the following indicators:

   1. One prior alcohol/drug related arrest and/or conviction
   2. Mortimer-Filkins score greater than 12
   3. BAC greater than .15
   4. Employment problems due to alcohol/drug use
   5. Previous contact with social and/or medical facilities for problems associated with alcohol/drug use
   6. Blackouts associated with alcohol/drug use
   7. Passing out associated with alcohol/drug use
   8. Withdrawal symptoms
       a. Tremulousness
       b. Alcoholic Hallucinosis
       c. Auditory Hallucinations
       d. Convulsive Seizures
       e. Delerium Tremens
   9. Medically diagnosed physical complications
       a. Alcoholic Liver Disease
           - Fatty Liver
           - Hepatitis
           - Cirrhosis
   10. Psychological dependence on alcohol/drugs
   11. Personality changes associated with alcohol/drug use
   12. Family and/or social problems associated with alcohol/drug use

Incipient Problem Drinker/Drug User: A client who exhibits one of the indicators listed under "B" above.

Non-Problem/Social Drinker/Drug User: A client who exhibits none of the above listed indicators.

Referral recommendations are based upon clinical assessment and involve the following criteria: needed intervention, if any, including whether it should be outpatient, inpatient or both; whether adjunctive treatment such as A.A. and/or disulfirum should be utilized; whether group and/or individual sessions are preferable; and demographics such as the client's age, gender, race/ethnicity, sexual orientation, address, income and other presenting physical and/or psychiatric problems (Timken, 1981). The interventions reviewed in this paper are based upon programs developed in the late 1970's and include Level I Education, Level II Therapeutic Education and Level II Treatment (Timken, 1978). Clients may be sentenced to both Level II Therapeutic Education and Level II Treatment if their substance problem is severe enough.

Level I is didactic alcohol education with an emphasis on traffic safety. It is to be utilized only for the social/non-problem drinker, and may range from four to eight sessions each of which must be two hours in length. Although topics are standardized, the programs vary widely in regard to format and presentation.

Level II Therapeutic Education combines alcohol education and group process. It is designed to be affective and far more structured and treatment oriented than Level I. This intervention is used for incipient problem and problem drinkers needing education. The program is eight to twelve sessions in length with each session from two to three hours long. Topics are standardized and the group size is held to twelve clients.

Level II Treatment is designed for incipient problem and problem drinkers who need therapy. Service may be provided on a combined inpatient and outpatient basis or in an outpatient setting alone. The length of treatment must be for a minimum of four months with a minimum of either 26 or 40 hours over the time period. The number of hours is determined by whether the client is assessed as an incipient problem or problem drinker/drug user. Specific techniques are left to the discretion of the individual provider or agency and thus vary widely. However, the Alcohol and Drug Abuse Division does mandate that all programs utilize standardized differential diagnostic procedures, maintain complete clinical charts and utilize only certified counselors. For those problem drinkers sentenced to both Level II Therapeutic Education and Treatment the therapy portion must be conducted above and beyond the educational services.

METHODOLOGY

The sample was randomly selected in December, 1984 from the total number of clients evaluated for education/treatment between July, 1981 and December, 1982. Due to variations in the number of evaluations among judicial districts, the percentage of clients selected within each district was a function of the number of clients evaluated (range = 126 - 4209). In smaller districts up to 50% of the population was selected while large districts had as few as $7\frac{1}{2}$% selected (see Appendix for percentages and numbers). In all, 3498 subjects were randomly slected from a total of 29,213 evaluations.

A computer tape with subjects' name, date of birth and, if available, drivers license number was then sent to the Colorado Division of Motor Vehicles (DMV) in order to obtain data on driving violations. These data included the violation code and date of occurrence. It should be noted that in Colorado DMV collects and stores information in DUI/DWAI* arrests whether or not a conviction results. Violations were subsequently recoded according to type of offense (e.g., non-moving, speeding, DUI/DWAI) and referenced from the date of the arrest which

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* DUI (Driving Under The Influence); DWAI (Driving While Ability Impaired).

brought them into the study. In other words, the alcohol evaluator's report from which the 3498 subjects were selected included the date of DUI/DWAI arrest. This same offense and date should also have been cited in the DMV record of the subject. With this date (and violation) as the point of reference, pre and post offenses were counted for nine categories of violations (see Appendix). Overall, 2705 matches were obtained between the alcohol evaluator's report and that of the Division of Motor Vehicles for a rate of 77%. This population constituted the sample analyzed in the study.

To determine education/treatment completion, if such were part of the disposition, evaluators from the 22 judicial districts were sent a list of those clients sampled from their district. Evaluators were asked a number of questions (see Appendix), the most important of which included actual education/treatment participation and status at termination. Depending upon the question posed, information was obtained on 80%-93% of all subjects. The most common reason for lack of information was because the evaluation was a "courtesy" (i.e., the subject was evaluated in one district but sentenced in another). Survey data from evaluators were subsequently edited and keypunched.

The three data sources (i.e., the evalutor's original report, the survey questionnaire and the clients' DMV record) were merged to form a continuous record by subject to be analyzed. Data elements included demographics (e.g., age, sex, race), arrest information (e.g., BAC, accident involvement, secondary drug use), severity (e.g., Mortimer-Filkins, years of alcohol use, prior treatment experiences), evaluators' recommendations and judges' case dispositions, actual education/treat-ment participation, termination status, prior driving violations (including DUI/DWAI) and post driving violations, in particular, DUI/DWAI recidivism.

RESULTS

There were a number of questions the study sought to address. The most important of these concerned the relationship between various inter-ventions and recidivism (i.e., rearrest for DUI/DWAI). Other areas of interest were: (1) profiles of clients sentenced to different inter-ventions or no intervention (are more severe clients being sentenced to more intense interventions and are there demographic differences?); (2) the relationship between demographics and severity (are various demographic groups more severe?); (3) what, if any, relationship exists between demographics/severity and treatment outcome (do different demo-graphic groups do better in treatment and how does severity relate to treatment outcome, in addition, are there differences according to type of intervention on these variables?); (4) what are the treatment success rates within interventions?; and, (5) what is the correlation between recommendations by evaluators and case dispositions by judges?

-4-

SAMPLE CHARACTERISTICS

Since one of the primary ways of looking at the population under study is through the type of intervention required, the sample will be analyzed according to those dispositions.

Before presenting these figures, however, it might be informative to first show the degree of correspondence between evaluators' recommendations and judges' sentences according to intervention. Table 1 illustrates this relationship.

Overall, evaluators and judges agreed on 87% of the DUI/DWAI cases seen in the study. The greatest correspondence between the two occurred in Level I Education (90%), Level II Therapeutic Education (88%) and Level II Therapeutic Education and Therapy (87%). The lowest rate of agreement was observed among those not sentenced to any education/ treatment intervention (78%). It should be noted that nearly one-half of those not sent to treatment were sentenced to jail instead.

Table 2 presents demographic data and Table 3 severity according to education/treatment requirements. (NOTE: Figures under "sample total" are based upon the total and not just the 2342 subjects for whom sentence intervention was known. Missing intervention data for the 363 remaining subjects were due to "courtesy" evaluations, bench warrants and death.) Overall, clients were most likely to be referred to one of the Level II interventions (73%) in the following rank order: Therapeutic Education and Therapy (35%), Therapeutic Education only (25%) and, finally, Therapy only (13%). Referral to Level I comprised 19% of those convicted while 7% were not required to participate in any education/therapy intervention. In view of the fact that subjects were in this study due to a DUI/DWAI conviction this frequency of Level II referral is not unexpected. Moreover, 43% of the 174 not referred were sent to jail and served an average of 68 days. Another 28% were also sentenced to jail but the time was fully suspended.

As Table 2 illustrates, subjects averaged approximately 31 years of age in the total sample, with the oldest represented by those not referred to any education/treatment ($\overline{X}$ = 34) and the youngest by those sentenced to Level I Education and Level II Therapeutic Education ($\overline{X}$ = 29). Males dominated the population by nine to one across every intervention except Level I Education where there was a 15% female representation. Ethnically, more than three-fourths of the total sample was white, followed by Hispanic (17%). Comparing interventions and ethnicity, Native Americans had their greatest representation among those sentenced to Level II Therapy (6%), blacks and Hispanics within the Level II Therapeutic Education and Therapy population (3% and 22%, respectively) and whites among those referred to Level I Education (85%).

According to marital status, 30% of the total population was married at the time of arrest, a figure fairly consistent across interventions. Single clients had their greatest representation among both Level I Education and Level II Therapeutic Education groups (50% each), although they comprised the largest group of clients in every intervention.

TABLE 1

RECOMMENDED TREATMENT BY SENTENCE TREATMENT

SENTENCE

RECOMMENDATION	LEVEL I ED.	LEVEL II THER. ED.	LEVEL II TREATMENT	LEVEL II TREAT. & THER. ED.	NONE REQ.	TOTAL
Level I Ed.	90.4%	3.3%	0	.9%	5.2%	428 18.8%
Level II Ther. Ed.	6.3%	87.9%	1.6%	1.9%	2.3%	572 25.2%
Level II Treatment	.3%	6.6%	80.8%	5.0%	7.3%	317 14.0%
Level II Treatment & Ther. Ed.	1.9%	5.1%	1.6%	87.0%	4.4%	888 39.1%
None Req.	7.5%	3.0%	3.0%	9.0%	77.6%	67 2.9%
TOTAL	446 19.6%	585 25.7%	281 12.4%	810 35.7%	150 6.6%	2272 100.0%

TABLE 2

SENTENCE X DEMOGRAPHICS

ITEM	NONE REQ.	LEVEL I ED.	LEVEL II THER. ED.	LEVEL II TREATMENT	LEVEL II T.E./TREAT.	SAMPLE TOTAL
	N=175	N=453	N=595	N=296	N=823	N=2705
	%	%	%	%	%	%
Age						
14-20	10.9	15.3	15.3	15.2	11.5	13.3
21-25	19.5	30.5	30.8	25.0	25.0	26.7
26-30	16.1	17.9	20.7	21.3	22.8	21.0
31-40	27.6	22.8	19.2	19.9	20.9	21.6
41-77	25.9	13.5	14.0	18.6	19.7	17.5
Mean	34.49	29.51	29.23	30.93	31.42	30.77
Median	32.00	26.00	26.00	27.00	28.00	28.00
Sex						
Male	88.5	84.8	89.6	90.5	90.4	88.9
Female	11.5	15.2	10.4	9.5	9.6	11.1
Race						
White	75.9	85.0	81.2	75.7	71.3	77.0
Black	2.9	2.4	2.0	1.0	3.4	2.9
Hispanic	17.2	11.7	15.5	15.9	21.9	17.4
Native American	2.9	.7	.7	6.4	2.8	2.2
Other	1.1	.2	.7	1.0	.6	.4
Marital						
Single	39.9	50.1	50.2	47.8	39.7	45.1
Married	30.1	28.5	29.1	27.5	31.4	29.8
Div/Wid/Sep.	30.1	21.4	20.7	24.7	29.0	24.9
Highest Degree						
None	37.0	18.7	26.2	29.5	32.0	29.7
High School/GED.	45.7	50.2	49.3	55.5	49.3	49.3
A.A./Voc/Tech	9.8	18.4	17.1	8.9	13.3	13.7
BA/Adv.	7.5	12.7	7.4	6.2	5.4	7.3
Income Assistance						
No	90.2	91.7	90.3	88.2	84.5	88.3
Yes	9.8	8.3	9.7	11.8	15.5	11.7
Indigent						
No	83.9	98.3	90.7	90.6	78.6	87.0
Yes	16.1	1.7	9.3	9.4	21.4	13.0

Those divorced, widowed or separated had their highest percentage among the no intervention (30%) and Level II Therapeutic Education and Therapy (29%) populations. Overall, 70% of the clients in the study had at least a high school degree. Level I Education referrals reported the lowest percentage without a degree (19%) and, correspondingly, the highest with at least an A.A. degree (31%). Non-referrals, on the other hand, had the highest percentage with no degree (37%), followed by those sentenced to Level II Therapeutic Education and Therapy (32%). According to both the income assistance and indigent items, 12%-13% of the total sample was in need of financial assistance, most frequently among those sentenced to Level II Therapeutic Education and Therapy, the most expensive of interventions, and the least frequently among those referred to Level I Education, the least expensive intervention.

Although nearly all subjects were arrested for DUI (97%), fewer than one out of four were subsequently convicted of the charge as the majority (76%) were convicted of DWAI. Level II Therapeutic Education referrals followed by Level II Therapy referrals had the highest DUI arrest rate (98% each), while the no intervention group had the lowest (92%). At conviction, the largest DUI percentage rate was observed within the Level II Therapy population and the smallest among Level I (19%) and Level II Education referrals (21%).

Slightly more than one out of five subjects in the total sample were involved in an accident at the time of arrest with the highest frequency occurring among Level II Therapeutic Education referrals (23%). The lowest rate was found in Level I Education and among those not sentenced to education/treatment (18%).

Blood alcohol concentration (BAC) and the Mortimer-Filkins, as previously mentioned, are two variables employed in assessing the intervention most appropriate for the client. Hence, differences are to be expected and in the direction portrayed on Table 3. Overall, clients averaged a .177 BAC with the highest found in those sentenced to Level II Therapeutic Education and Therapy ($\overline{X}$ = .196) and the lowest among Level I referrals ($\overline{X}$ = .131). Those not referred also had a high BAC ($\overline{X}$ = .181), however, as noted earlier many of these subjects went to jail. According to Mortimer-Filkins scores Level II Therapeutic Education and Therapy clients had the most problems with alcohol ($\overline{X}$ = 14.98) and Level I Education referrals the least ($\overline{X}$ = 7.83). Again, non-referrals also reported significant alcohol related problems ($\overline{X}$ = 13.33).

In the toal sample approximately one out of four clients had previously been arrested for DUI/DWAI. The highest frequency occurred among the Level II Therapeutic Education and Therapy group (41%) followed closely by those not referred (36%). As expected, Level I and Level II Education referrals reported the lowest prior DUI/DWAI arrest percentages (4% and 8%, respectively). The high prior arrest rate for non-referrals most likely accounts for the percentage sentenced to jail (43%) and not treatment. Although Level II Therapeutic Education and Therapy referrals had an even higher rate of priors and were sent to treatment, 30% of this group also did time in jail. However, they averaged 21.33 days served compared to 68.14 for the non-treatment group. In addition, 46% had their jail time fully suspended compared to 28% for their counterparts

TABLE 3

SENTENCE X ARREST/SEVERITY

ITEM	NONE REQ.	LEVEL I ED.	LEVEL II THER. ED.	LEVEL II TREATMENT	LEVEL II TREATMENT & THER. ED.	SAMPLE TOTAL
	N=175 %	N=453 %	N=595 %	N=296 %	N=823 %	N=2705 %
Arrest Charge						
DUI	92.0	95.4	98.0	97.6	96.7	96.6
DWAI	4.0	4.0	2.0	1.0	2.7	2.0
Other	4.0	.7	0	1.4	2.7	1.4
Conviction Charge						
DUI	24.1	19.2	21.0	34.9	25.0	23.9
DWAI	74.7	80.6	78.7	65.1	74.6	75.7
Other	1.1	.2	.3	0	.4	.4
Accident						
No	81.3	81.3	76.9	79.1	77.9	77.7
Yes	18.8	18.7	23.1	20.9	22.1	22.3
BAC						
.10-.149	32.0	70.1	21.7	19.2	14.6	28.5
.150-.199	34.4	25.5	49.0	46.3	34.6	37.2
.200-.249	16.8	3.8	16.9	27.9	33.0	23.7
.250+	16.8	.6	2.4	6.6	17.8	10.5
Refused	19.6	24.8	13.3	12.8	15.4	15.6
Mean	.181	.131	.163	.181	.196	.177
Median	.170	.130	.170	.180	.200	.170
Mortimer-Filkins						
0-11	47.9	83.3	68.0	45.4	33.0	51.8
12-15	18.3	10.9	15.2	20.3	24.3	18.7
16+	33.7	5.8	16.8	34.4	42.7	29.5
Mean	13.33	7.83	10.01	13.07	14.98	12.42
Median	12.00	8.00	10.00	12.00	14.00	11.00
Prior Arrests						
None	63.7	96.1	92.5	72.4	59.2	76.1
1	20.2	3.7	6.7	18.1	29.9	17.6
2 Or More	16.2	.2	.7	9.6	10.9	6.3
Mean	.590	.041	.076	.392	.547	.325
Median	.000	.000	.000	.000	.000	.000
Drinker Type						
Social	24.1	81.2	21.3	.3	.6	20.3
Incipent Problem	20.1	13.9	63.5	46.6	8.9	27.3
Problem	55.7	4.9	15.1	53.0	90.5	52.3

Actual BAC based upon samples taken, exclusive of those who refused.

not referred. In all probability, these differences in case disposi-
tions could be explained by differences in prior treatment experiences.
It would be anticipated that non-referred subjects had been through
treatment one or more times in the past and, consequently, were sent to
jail in lieu of treatment for the event that brought them into the
present study. Level II Therapeutic Education and Therapy referrals,
on the other hand, probably had not experienced such a degree of past
treatment, thus they were referred to therapy. Unfortunately, data are
not available to substantiate this interpretation.

The last variable shown on Table 3, drinker type, is consistent with
that of BAC and the Mortimer-Filkins. Level II Therapeutic Education
and Therapy referrals had the highest problem drinker percentage (91%)
and Level I referrals the lowest (5%). In fact, barring unforeseen
circumstances, there should be no problem drinkers sentenced to Level I
Education. Non-referrals were evaluated as having the second highest
problem drinking rate (56%) followed by Level II Therapy referrals
(53%). Overall, nearly one-half of those involved in the study were
classified as problem drinkers.

In summary, there are obvious and expected differences between inter-
ventions according to client severity as well as demographic distinctions
between groups. Referrals to Level I Education, the least intense
intervention, had the lowest BAC, Mortimer-Filkins, prior arrest and
accident involvement rates among all subjects while Level II Therapeutic
Education and Therapy referrals had the highest BAC, Mortimer-Filkins
and prior arrest rates. Non-referrals to treatment or education had
the second highest rates on these measures but were more likely to be
sentenced to jail, due probably to having previously gone through the
treatment system.

Level II Therapeutic Education only referrals and Level II Therapy only
referrals fell between these extremes with the former more closely
approximating Level I clients and the latter those in Level II Therapeutic
Education and Therapy in terms of their profiles. Drinker type,
expectedly, was a direct reflection of the intensity of the intervention.

Demographically, Level I Education and Level II Therapeutic Education
referrals were the youngest and non-referrals the oldest among those
sentenced. The Level I group also reported the highest percentages of
females, Anglos, single individuals, advanced degreed clients and the
lowest indigency rates. By contrast, non-referrals, followed closely
by Level II Therapeutic Education and Therapy referrals, had the highest
rate of divorced, widowed or separated clients and the lowest levels of
education. This Level II population also had the most indigents and the
highest percentage of Blacks and Hispanics. Although very few Native
Americans were in the study, their greatest representation occurred,
by far, within the Level II Therapy population.

DEMOGRAPHICS AND SEVERITY

As the previous discussion has pointed out, there do appear to be differences between interventions, as well as non-intervention, on the demographic and severity measures presented. The next area to be assessed concerns the relationship between demographics and severity, regardless of intervention. Table 4 begins this presentation.

As other studies have shown, younger drivers have more problems with drinking and driving than older drivers. Nearly 26% of those 14-20 were involved in an accident at the time of arrest compared to 22% for the total sample. Those in their early twenties reported the second highest accident rate (24%). According to BAC, Mortimer-Filkins and prior arrests, older drivers had more problems associated with drinking than their younger counterparts. In fact, generally there was an inverse relationship between age and each of these variables. Expectedly, older drivers were also more likely to be classified as problem drinkers than younger drivers. Little difference was noted on arrest and conviction charges according to age, as the majority of all groups was arrested for DUI and convicted of DWAI.

On every variable except accident involvement females were less severe than males (Table 5). They had lower BAC levels when arrested (although more refused the test) and lower Mortimer-Filkins scores. They were less likely to have had a prior arrest and were classified as social or incipient drinkers more frequently. Differences in arrest and conviction charges were slight but showed males more likely to be arrestd for and convicted of DUI rather than DWAI when compared to females.

According to accident involvement at the time of arrest, Black drivers had the highest percentage followed by "other" (Table 6). Interestingly, in light of the remaining severity indicators, Native Americans had the lowest accident rate. Turning to BAC, Mortimer-Filkins and prior arrests, on the other hand, Native Americans appeared the most severe followed by Blacks and Hispanics. Consistently, Native Americans also had the highest percentage of problem drinkers followed by Blacks and Hispanics. While differences in arrest charges were slight, those on conviction were notable. In fact, one-half of the Native Americans in the sample were convicted of DUI compared to less than one out of four in the total population.

Single and married clients had the greatest accident involvement at the time of arrest, approximately 5% more than those divorced, widowed or separated (Table 7). Interestingly, on all other measures those divorced, widowed or separated were far more severe. They were more likely to have had a BAC in excess of .20, as well as refused the test, a Mortimer-Filkins score above 15, at least one prior DUI/DWAI arrest and, expectedly, they were more likely to be classified as a problem drinker. While this group had a slightly lower DUI rate at the time of arrest than those who were single or married they were more likely to be convicted of DUI.

TABLE 4

AGE X SEVERITY

ITEM	14-20	21-25	26-30	31-40	41+
Accident					
% Yes	25.7	23.8	21.7	19.1	22.0
BAC ***					
% 0-.149	42.3	32.3	21.7	25.8	22.1
% .150-.199	35.9	39.8	41.0	32.9	35.0
% .200-.249	18.5	21.2	25.4	27.1	26.2
% .250+	3.4	6.7	11.9	14.2	16.8
% Refused	11.3	13.2	14.3	18.8	18.1
Mortimer-Filkins ***					
% 0-11	56.6	56.6	53.1	47.0	44.7
% 12-15	15.2	16.9	19.2	20.6	20.9
% 16+	28.2	26.5	27.6	32.4	34.4
Prior Arrests ***					
% 0	90.4	79.9	71.7	75.3	65.4
% 1	8.7	16.1	21.4	17.1	22.8
% 2+	.9	3.9	6.9	7.6	11.8
Drinker Type ***					
% Social	25.7	22.5	17.3	21.4	15.1
% Incipent Problem	33.0	30.4	29.0	22.0	23.0
% Problem	41.3	47.1	53.7	56.6	61.9
Arrest Charge					
% DUI	95.5	96.7	96.7	96.2	97.4
% DWAI	3.6	1.7	1.9	2.2	1.1
% Other	.8	1.7	1.4	1.5	1.5
Conviction Charge					
% DUI	24.2	24.7	22.8	23.0	25.2
% DWAI	74.9	75.0	77.2	76.7	74.4
% Other	.8	.3	0	.3	.4
N	359	721	569	583	473

*	P <	.05
**	P <	.01
***	P <	.001

TABLE 5

SEX X SEVERITY

ITEM	MALE	FEMALE
Accident		
% Yes	22.0	25.1
BAC		
% 0-.149	28.8	25.5
% .150-.199	37.0	39.4
% .200-.249	23.9	22.5
% .250+	10.3	12.6
% Refused	15.1	16.3
Mortimer-Filkins		
% 0-11	51.6	53.0
% 12-15	18.6	19.3
% 16+	29.9	27.7
Prior Arrests ✱✱✱		
% 0	74.6	87.9
% 1	18.7	8.5
% 2+	6.7	3.5
Drinker Type		
% Social	19.8	24.7
% Incipent Problem	27.3	28.3
% Problem	53.0	43.0
Arrest Charge		
% DUI	96.8	95.0
% DWAI	1.8	3.3
% Other	1.4	1.7
Conviction Charge		
% DUI	24.4	20.0
% DWAI	75.2	80.0
% Other	.4	0
N	2403	300

✱   P < .05

✱✱   P < .01

✱✱✱ P < .001

TABLE 6
RACE X SEVERITY

ITEM	ANGLO	BLACK	HISPANIC	NATIVE AMERICAN	OTHER
Accident					
% Yes	21.6	28.9	24.7	16.9	26.7
BAC *					
% 0-.149	29.4	25.8	24.5	12.8	27.3
% .150-.199	37.4	32.3	36.8	40.4	45.5
% .200-.249	23.2	24.2	26.3	23.4	27.3
% .250+	9.6	17.7	12.4	23.4	0
% Refused	14.4	10.1	20.0	14.5	21.4
Mortimer-Filkins **					
% 0-11	53.8	42.9	46.3	33.3	50.0
% 12-15	18.5	14.3	19.2	26.7	12.5
% 16+	27.8	42.9	34.5	40.0	37.5
Prior Arrests ***					
% 0	78.8	72.4	67.5	52.5	81.3
% 1	16.4	17.1	21.1	32.2	18.8
% 2+	4.8	10.5	11.4	15.3	0
Drinker Type					
% Social	22.5	14.3	13.6	8.3	6.3
% Incipent Problem	28.8	18.2	23.7	11.7	50.0
% Problem	48.7	67.5	62.7	80.0	43.8
Arrest Charge					
% DUI	96.5	98.7	96.6	93.3	100
% DWAI	2.3	0	1.3	1.7	0
% Other	1.2	1.3	2.1	5.0	0
Conviction Charge ***					
% DUI	23.2	17.9	24.5	50.0	31.3
% DWAI	76.4	80.8	75.3	50.0	68.8
% Other	.3	1.3	.2	0	0
N	2080	78	469	60	16

* $P < .05$

** $P < .01$

*** $P < .001$

TABLE 7
MARTIAL STATUS X SEVERITY

ITEM	SINGLE	MARRIED	DIVORCED WIDOWED SEPARATED
Accident *			
% Yes	23.5	23.3	18.8
BAC **			
% 0-.149	32.2	26.2	24.0
% .150-.199	36.5	39.2	36.6
% .200-.249	23.1	24.1	24.8
% .250+	8.2	10.5	14.6
% Refused	13.3	14.9	19.3
Mortimer-Filkins ***			
% 0 -11	57.7	54.3	37.8
% 12=15	16.5	20.3	20.6
% 16+	25.8	25.4	41.6
Prior Arrests ***			
% 0	80.7	75.2	68.7
% 1	15.1	18.2	21.6
% 2+	4.2	6.6	9.8
Drinker Type ***			
% Social	22.7	20.0	16.4
% Incipent Problem	31.4	26.1	21.6
% Problem	45.9	53.9	61.9
Arrest Charge			
% DUI	96.6	97.0	95.9
% DWAI	2.3	1.9	1.6
% Other	1.1	1.1	2.5
Conviction Charge			
% DUI	22.7	23.0	27.4
% DWAI	76.9	76.8	72.1
% Other	.3	.2	.4
N	1219	806	675

*   P < .05

**   P < .01

*** P < .001

TABLE 8

DEGREE X SEVERITY

ITEM	NONE	HIGH SCHOOL	AA/VOC/TECH	BA/ADV
Accident				
% Yes	20.9	22.3	23.4	24.7
BAC				
% 0-.149	27.9	27.6	32.5	28.0
% .150-.199	36.0	39.3	34.6	34.8
% .200-.249	24.4	23.1	24.8	24.2
% .250+	11.8	10.0	8.0	13.0
% Refused	14.7	15.7	16.1	12.5
Mortimer-Filkins ***				
% 0-11	42.2	53.5	57.2	67.5
% 12-15	22.5	17.4	18.3	12.9
% 16+	35.3	29.1	24.5	19.6
Prior Arrests **				
% 0	72.4	77.9	74.7	81.6
% 1	19.1	16.5	19.6	15.3
% 2+	8.5	5.6	5.7	3.2
Drinker Type ***				
% Social	13.8	21.3	24.0	32.8
% Incipent Problem	25.2	27.5	32.2	26.7
% Problem	61.0	51.3	43.9	40.5
Arrest Charge				
% DUI	96.0	96.9	96.7	95.9
% DWAI	2.3	1.8	2.2	2.1
% Other	1.8	1.3	1.1	2.1
Conviction Charge				
% DUI	25.4	24.3	20.7	22.6
% DWAI	73.9	75.5	79.1	76.9
% Other	.6	.2	.3	.5
N	799	1327	368	195

```
*     P  <  .05
**    P  <  .01
**    P  <  .001
```

TABLE 9

INCOME ASSISTANCE AND INDIGENCY X SEVERITY

ITEM	INCOME ASSISTANCE		INDIGENCY	
	YES	NO	YES	NO
Accident	*	*		
% Yes	26.6	21.0	23.2	22.7
BAC			***	***
% 0-.149	24.2	28.3	22.2	29.6
% .150-.199	37.4	38.7	34.0	38.5
% .200-.249	27.0	22.5	25.3	22.8
% .250+	11.4	10.5	18.6	9.1
% Refused	16.3	15.1	18.8	15.4
Mortimer-Filkins	***	***	***	***
% 0-11	41.8	52.8	35.8	54.2
% 12-15	17.2	18.5	17.2	19.0
% 16+	41.0	28.7	47.0	26.8
Prior Arrests	***	***	***	***
% 0	71.7	76.6	63.9	78.7
% 1	16.7	17.7	23.6	16.1
% 2+	11.5	5.7	12.5	5.2
Drinker Type	***	***	***	***
% Social	12.6	21.5	4.6	24.1
% Incipent Problem	23.7	27.3	19.4	28.2
% Problem	63.7	51.2	76.1	47.4
Arrest Charge	***	***		
% DUI	94.6	96.7	97.2	96.6
% DWAI	1.8	2.1	.7	2.2
% Other	3.6	1.2	2.1	1.2
Conviction Charge			**	**
% DUI	27.4	24.9	29.1	21.8
% DWAI	71.8	75.0	70.9	77.7
% Other	.7	.2	0	.4
N	278	2108	285	1905

*   P < .05

**   P < .01

*** P < .001

Subjects with a college or advanced degree had the highest accident rate among those included in the study while those without any degree had the lowest (Table 8). Differences between groups on BAC were slight, however, here too those with at least a Bachelors tended to have higher alcohol content levels. According to Mortimer-Filkins scores and prior arrests, subjects without a degree were the most severe and those with a college or advanced degree the least severe. Similarly, this latter group had the lowest problem drinker percentage and the former the greatest among those sampled. Differences according to education on arrest charge were neglible, while conviction rates revealed that those with less education had slightly more DUI convictions.

Both income assistance and indigence figures on every variable revealed that subjects with lower economic status were more severe than those better off economically (Table 9). They were more likely to have been in an accident, to either have refused the blood alcohol test or test above .20, to have a Mortimer-Filkins score of 16 or more, and they were more likely to have been classified as problem drinkers. In addition, they had a higher DUI conviction rate than those not in need of economic assistance although differences in arrest charge were only slight.

Summarizing, the least severe subjects in this study were those aged 14-20 followed by those 21-25, female, Anglo, single or married, with at least a BA Degree, not receiving income assistance and not indigent. The most severe, on the other hand, were 41 years of age or more, male, Native American or Black, divorced or separated, without a high school degree, on income assistance and/or indigent. These severity figures appear consistent with the type of intervention ordered by the courts. In addition, although demographic differences on arrest charges were slight, those at conviction were more pronounced: demographic subgroups with severe profiles were more likely to be convicted of DUI than those with less severe profiles. Finally, the most powerful variables employed in this analysis were, in order, prior DUI/DWAI arrests, drinker type, Mortimer-Filkins and BAC. The least powerful were arrest charge, conviction charge and accident involvemnt.

SENTENCE VERSUS ACTUAL PARTICIPATION

In the previous discussion on sample characteristics intervention was determined by the modality to which the client was sentenced. As expected, clients with greater severity were sentenced to interventions of greater intensity. However, the intervention in which the client actually participated was not always the same as that of the sentence. Table 10 illustrates this discrepancy.

Over 80% of the clients sentenced to Level I Education participated in that intervention while 14% went to a more intense modality. This is not surprising since clients who seek rehabilitation may participate in more than what the court might order. Among those sentenced to Level II Therapeutic Education, however, only 60% actually entered that intervention while 23% went to Level I Education. Although 10% participated in more than what was required, this figure for Level I is disturbing and difficult to explain.

TABLE 10

TREATMENT SENTENCE -VS- ACTUAL PARTICIPATION

PARTICIPATION

SENTENCE	LEVEL I EDUCATION	LEVEL II THER. ED.	Level II TREATMENT	Level II TREAT & THER ED	NONE BUT REQUIRED	NONE REQUIRED	N
Level I Education	83.1%	6.7%	1.9%	5.3%	3.1%		419
Level II Ther. Education	23.0%	60.9%	3.5%	7.0%	5.6%		514
Level II Treatment	7.0%	50.4%	20.2%	19.8%	2.7%		258
Level II Treat. & Ther. Ed.	1.6%	8.9%	7.3%	77.3%	5.0%		744
None Required	9.2%	5.2%	3.3%	21.6%	3.3%	57.5%	153
N	510	545	137	717	91	88	2088

An even greater discrepancy between sentence and participation was found within the Level II Therapy group as only 20% actually entered this modality. Although another 20% went to both Education and Therapy, surprisingly, 50% entered Level II Therapeutic Education. The most plausable explanation for such a discrepancy is due to past confusion over the difference between Level II Therapeutic Education and Level II Therapy. This confusion existed in the Division of Alcohol and Drug Abuse, in judicial districts, among treatment and/or education facilities and, undoubtly, within the client population as well. During the period in which the sample was selected the Alcohol/Drug Driving Safety (ADDS) Program was under the Division of Highway Safety. They established the curriculum and requirements for each of the four Level I/ Level II interventions. Programs had to follow these if they were to be certified and receive referrals from Judicial. In addition, they had to be licensed by the Division of Alcohol and Drug Abuse, whose requirements included client-counselor ratios, treatment plans, progress notes, level of counselor certification as determined by education and experience, etc. It is small wonder that many were confused, in particular over the distinction between Level II Therapeutic Education and Level II Therapy. While Level I Education was clearly not therapy, Level II Therapeutic Education was, or was not, depending upon one's perception. This condition has, hopefully, been clarified with the transfer of the ADDS program to the Division of Alcohol and Drug Abuse.

Level II Therapy and Education, the last intervention displayed, showed a correspondence of 77% between sentence and participation. A total of 18% participated in less than required while 5% did not participate at all. Interestingly, among those not sentenced to education or treatment nearly 40% went anyway, most often to Level II Therapy and Education. In all probability since nearly half of those not sentenced to an intervention went to jail, they had lost their driving privileges as well. In order to receive a restricted driving license or to have their license returned, satisfactory completion of treatment is required by the Division of Motor Vehicles regardless of what the court might order in terms of treatment. This should account for the majority of those who participated although not required.

In light of these discrepancies and with the view that in assessing different interventions it is more important to look at what clients actually took part in rather than what they were supposed to take part in, subsequent analyses of client profiles within interventions will utilize actual participation over sentence requirements. However, prior to this discussion it would appear appropriate to describe the characteristics of clients according to actual participation and to assess what, if any, significant differences there were among those who participated in less than required, as required, or more than required.

As indicated in Table 11, the youngest subjects tended to be those participating in Level I Education and Level II Therapeutic Education. Among those who actually participated in some form of education or therapy the oldest were found among the Level II Therapy group although, similar to the analysis of sentence and demographics, the "none required" group was the oldest. Males dominated all groups with

TABLE 11

PARTICIPATION X DEMOGRAPHICS

ITEM	NONE REQ.	LEVEL I ED.	LEVEL II THER. ED.	LEVEL II TREATMENT	LEVEL II TREAT & THER ED	SAMPLE TOTAL
	N=146	N=521	N=589	N=148	N=934	N=2705
	%	%	%	%	%	%
Age ***						
14-20	11.6	25.5	14.4	11.5	11.7	13.1
21-25	17.0	29.4	30.2	18.2	24.6	26.2
26-30	19.7	19.2	21.6	19.6	23.0	21.4
31-40	25.9	21.7	18.0	24.3	21.9	21.3
41-77	25.9	14.6	15.8	26.4	18.7	18.0
Mean	34.45	29.63	29.69	33.61	31.41	30.75
Median	32.00	27.00	26.00	31.00	28.00	28.00
Sex *						
Male	91.8	85.8	90.3	85.1	89.9	88.9
Female	8.2	14.2	9.7	14.9	10.1	11.1
Race ***						
White	76.6	84.8	80.0	70.3	70.6	76.2
Black	3.4	1.9	2.2	1.4	4.0	2.9
Hispanic	16.4	11.7	15.4	17.6	23.3	18.0
Native American	6.8	1.0	1.5	10.8	1.6	2.4
Other	.7	.6	.8	0	.5	.6
Marital **						
Single	37.7	49.0	48.8	35.4	42.3	44.7
Married	32.2	28.8	29.8	30.6	31.7	30.5
Div/Wid/Sep	30.1	22.1	21.4	34.0	12.7	24.8
Highest Degree ***						
None	39.7	22.1	28.3	32.7	34.4	30.3
High School/GED	43.2	51.3	47.7	51.0	49.1	49.0
A.A./Voc/Tech	9.6	15.8	16.7	10.2	10.8	13.3
BA/Adv.	7.5	10.8	7.3	6.1	5.7	7.4
Income Assistance ***						
No	89.1	93.8	90.1	89.0	84.4	88.5
Yes	10.9	6.2	9.9	11.0	15.6	11.5
Indigent ***						
No	91.0	97.8	91.3	89.7	76.6	86.8
Yes	9.0	2.2	9.7	10.3	23.4	13.2

   * P < .05
  ** P < .01
 *** P < .001

the highest represenation of females found among Level II Therapy participants. In terms of ethnicity, the highest percentages of clients in all modalities were Anglo. Their greatest representation was observed in Level I Education. The highest percentage of Hispanic and Black clients was found in the combined Level II Therapy and Education modality. Native Americans participated in Level II Therapy far more often than any other modality. Single individuals had their highest representation in Level I Education and Level II Therapeutic Education and the least in Level II Therapy. Divorced, widowed, or separated persons tended to participate in Level II Therapy most often and in both Level II Therapy and Therapeutic Education the least. Those with high school diplomas or GEDs represented the largest percentages of clients in all modalities, while their lowest percentage was found among those not required to participate in any intervention. Clients with no degree had their highest representation among the "none required" group, followed by the combined Level II Therapy and Education modality, while those with AA degrees were most likely to have participated in one of the education-only interventions. Those with Bachelor's or graduate degrees had their greatest representation in Level I Education. The highest representation of clients on income assistance was found among those who participated in both Level II Education and Therapy and the lowest among Level I Education participants. Indigent clients followed the same pattern.

Table 12 presents data on participation according to severity indicators. While the vast majority of the sample was arrested on a DUI charge, most were convicted on a charge of DWAI. If the arrest charge was DUI, participation most often included Level II Therapeutic Education or Level II Therapy and Education yet if the conviction charge was DUI, participation tended toward Level II Therapy only. A DWAI arrest most likely resulted in participation in Level I Education while a DWAI conviction resulted most often in Level II Therapeutic Education. If an accident was involved in the incident leading to the arrest Level II Education, followed closely by Level II Therapy and Education, were the most frequent modalities clients participated in while Level II Therapy was the least utilized.

As expected, the hihgest average BAC was found among those who participated in Level II Therapy and Education and the lowest was found among Level I Education participants. The lowest average Mortimer-Filkins test scores were found among Level I Education clients but the highest average scores were those of Level II Therapy participants rather than those who participated in both Level II Therapy and Education. Individuals with two or more prior DUI/DWAI arrests tended to participate in Level II Therapy or nothing most often, while those with only one prior arrest tended toward Level II Therapy and Education or Level II Therapy only. Interestingly, participants in Level II Therapy had slightly more prior arrests than those who participated in both Level II Therapy and Education.

Of those individuals not required to participate in education or therapy over half were classified as problem drinkers. Of those who participated in Level I Education nearly three-quarters were classified as social

TABLE 12

PARTICIPATION X ARREST/SEVERITY

ITEM	NONE REQ.	LEVEL I ED.	LEVEL II THER. ED.	LEVEL II TREATMENT	LEVEL II TREAT. & THER. ED.	SAMPLE TOTAL
	N=144	N=519	N=583	N=149	N=929	N=2705
Arrest Charge***	%	%	%	%	%	%
DUI	91.8	95.8	97.5	95.9	97.1	96.5
DWAI	3.4	3.7	1.7	3.4	1.3	2.2
Other	4.8	.6	.8	.7	1.6	1.3
Conviction Charge***						
DUI	27.2	21.3	18.2	39.9	25.3	23.7
DWAI	71.4	78.5	81.7	59.5	74.4	76.0
Other	1.4	.2	.2	.7	.3	.3
Accident***						
No	78.8	92.1	73.6	85.6	74.7	77.1
Yes	21.3	17.9	26.4	14.4	25.3	22.9
BAC***						
0-.149	35.0	63.0	22.5	21.8	15.5	28.6
.150-.199	35.0	27.9	50.4	40.9	33.4	37.4
.200-.249	17.0	6.8	21.9	19.1	33.6	23.1
.250+	13.0	2.2	5.2	18.2	17.5	10.9
Refused	20.6	21.5	11.9	6.0	13.9	15.6
Mean	.174	.138	.173	.188	.187	.176
Median	.170	.140	.170	.180	.200	.170
Mortimer-Filkins***						
0-11	49.0	81.2	58.7	30.4	34.9	52.0
12-15	23.8	11.3	16.8	18.2	23.2	18.6
16+	27.3	7.6	24.6	51.4	41.9	29.4
Mean	12.81	8.28	11.18	16.12	14.81	12.42
Median	12.00	8.00	10.00	16.00	14.00	11.00
Prior Arrests***						
0	61.8	93.6	89.2	58.3	62.6	76.0
1	23.6	5.6	9.4	25.0	27.8	17.7
2	14.6	.8	1.4	16.7	9.6	6.3
Mean	.611	.072	.122	.667	.498	.325
Median	.000	.000	.000	.000	.000	.000
Drinker Type***						
Social	22.4	73.3	6.3	5.4	2.9	20.8
Incipient Problem	23.8	15.2	67.7	11.5	10.8	27.0
Problem	53.7	11.5	26.0	83.0	86.3	52.2

Actual BAC based upon samples taken, exlusive of those who refused.

drinkers. Participants in Level II Therapeutic Education tended to
have been classified as incipient problem drinkers, while the vast
majority of participants in Level II Therapy, as well as combined
Level II Therapy and Education, were classified as problem drinkers.

One method of analyzing differences between what clients were sentenced
to versus what they actually participated in is to look at whether therir
participation was less than, more than, or as required. Table 13 breaks
out these categories according to demographic variables.

Younger clients (14-20) were most likely to participate in the inter-
vention they were sentenced to, although if not following the terms of
their sentence they were the least likely to take part in more than re-
quired. Those 26-30 had the lowest correspondence between sentence and
participation and they had the highest percentageof participating in
less than required. The age group with the highest percentage of
participating in more than required were those 31-40. Females were
more likely than males to follow the terms of their sentence and they
had a slightly higher percentageof participation in an intervention
of greater intensity than required.

In terms of race, Hispanics and Blacks were most likely to participate
in the requirements of their sentence and Native Americans the least
likely. Aside from "other", Native Americans also had the highest per-
centage of participation in less than their sentence. Only slight
differences were observed on the marital status variable while those
on highest degree were more prominent. Clients without a degree had
the lowest correspondence between sentence and participation and were
the most likely to participate in less than their sentence specified.
Those with an AA degree, on the other hand, had the highest agreement
on sentence and participation and were the least likely to participate
in less than required. The highest percentage participating in more
than the sentence was found among clients with a college degree or more.

Finally, according to both the income assistance and indigent variables,
those on assistance and/or declared indigent were more likely to follow
the terms of their sentence than those not receiving assistance and/or
not indigent. The former were also more likely to participate in more
than their sentence required.

Table 14 presents these same comparisons according to severity indica-
tors. On both arrest and conviction charge the most notable difference
between sentence and participation occurred among those in the "other"
offense category. These clients, though drinking, were typically
charged with driving with a suspended license. They had the highest
percentage of following the terms of their sentence. Clients arrested
for DWAI were more likely to participate in less than required, as
were those arrested for DUI. DUI convictions were also the least
likely to follow the terms of their sentence and they had the highest
rate of participating in less than required.

Cleints involved in an accident at the time of the incident were far
more likely to follow the sentence than those not in the accident.

TABLE 13

DEMOGRAPHICS AND SENTENCE -VS- PARTICIPATION

ITEM	PARTICIPATION LESS THAN SENTENCE	PARTICIPATION SAME AS SENTENCE	PARTICIPATION MORE THAN SENTENCE
Age	%	%	%
14-20	23.2	70.3	6.5
21-25	21.8	66.6	11.6
26-30	24.4	65.5	10.1
31-40	18.5	67.8	13.8
41-77	20.6	68.4	11.0
Sex			
Male	22.0	67.1	10.9
Female	17.7	70.9	11.4
Race *			
White	22.2	66.8	11.0
Black	20.0	70.0	10.0
Hispanic	16.3	71.9	11.7
Native American	37.3	54.9	7.8
Other	38.5	61.5	0
Marital			
Never Married	22.1	68.1	9.8
Married	21.2	67.0	11.8
Div/Wid/Sep	21.3	66.8	11.9
Degree			
None	22.1	65.3	10.6
High School/GED	21.3	67.8	10.9
AA/Voc/Tech	18.7	71.0	10.2
BA/Adv.	19.9	67.3	12.8
Income Assistance			
Yes	17.1	71.2	11.7
No	22.4	67.5	10.2

  * P < .05
 ** P < .01
*** P < .001

TABLE 14

ARREST/SEVERITY AND SENTENCE -VS- PARTICIPATION

ITEM	PARTICIPATION LESS THAN SENTENCE	PARTICIPATION SAME AS SENTENCE	PARTICIPATION MORE THAN SENTENCE
Arrest Charge	%	%	%
DUI	21.7	67.4	10.9
DWAI	20.4	67.3	12.2
Other	17.9	71.4	10.7
Conviction Charge *			
DUI	22.2	63.2	14.6
DWAI	21.4	68.8	9.7
Other	14.3	71.4	14.3
Accident			
Yes	20.8	76.3	8.9
No	22.1	67.0	10.9
BAC *			
0-.149	20.3	67.6	12.1
.150-.199	23.8	67.1	9.1
.200-.249	20.9	68.8	10.3
.250-.400	17.9	72.8	9.3
Refused	12.7	75.2	12.1
Mortimer-Filkins			
0-11	22.0	66.2	11.8
12-15	21.7	69.6	8.7
16+	21.1	68.1	10.7
Prior Arrests *			
0	23.3	66.0	10.7
1	19.6	71.5	8.9
2+	14.0	72.1	14.0
Drinker Type ***			
Social	18.5	68.6	12.9
Incipient Problem	27.8	60.8	11.4
Problem	19.4	70.9	9.7

* P < .05
** P < .01
***P < .001

Interestingly, those who refused the blood alcohol test had the greatest compliance rate and the highest percentage of participating in more than required. Among clients taking the test there was generally a direct relationship between higher alcohol concentrations and greater compliance.

Mortimer-Filkins scores revealed that those with low scores (i.e., less than 12) had the lowest correspondence between sentence and participation followed by those with the highest scores (i.e., above 15). Similar to the findings on BAC, clients with more prior alcohol related arrests tended to comply more with the terms of their sentence. In fact, those with at least two arrests not only had the highest percentage of compliance with their sentence, but they also had the highest rate of participating in an intervention of greater intensity.

The last severity indicator, drinker type, revealed that incipient problem drinkers had, by far, the lowest incidence of following their sentence and the highest percentage of participating in less than requried. Problem drinkers, on the other hand, were most likely to comply with their sentence while social drinkers were a close second. Social drinkers also had the highest rate of participation in more than their sentence stipulated. Since they were typically sentenced to the least intensive modality, this finding is not unexpected (i.e., if they were not following the sentence they would have to participate in a intervention of greater intensity).

TREATMENT OUTCOME

In the following section,information will be presented on treatment out-
come. It should be recalled there were significant differences between
modalities in terms of client demographic and severity profiles. Hence,
each modality requires a consideration of the type of client entering
when treatment outcome, as well as recidivism, are analyzed and discussed.
Table 15 summarizes treatment termination findings.

As could be anticipated, there was an inverse relationship between educa-
tion/treatment intensity and successful completion: the greater the
requirements of the intervention, the lower the success rate. Level I
Education participants, the least severe population in the study, had
a 75% success rate compared to 51% for Level II Treatment and Therapeutic
Education participants. This latter group had a 21% unsuccessful rate,
the highest observed,compared to 4.6% for the former group.

Interestingly, differences between modalities on the category "Completed -
With Probation Intervention" were not nearly as sharp as those on the other
two outcome categories. Probation intervention occurred when clients
did not follow their education or treatment requirements and, consequently,
were contacted by the alcohol evaluator monitoring their probation.
These contacts could range from a telephone call by the evaluator to an
appearance in court, depending upon the extent of non-compliance and the
number of past contacts. Attempts are made initially to have clients
follow their sentence requirements but revocation of probation could
result in cases of continued non-compliance. As Table 15 illustrates,
alcohol evaluators had their greatest involvement with those participating
in Level II Treatment (31%) and the least with Level I Education partici-
pants (20%).

Overall, 84% completed education and/or treatment successfully, however,
nearly one out of four clients had to be contacted by an alcohol evaluator
concerning compliance. Nearly 17% did not enroll or failed to
complete the education/treatment required by their sentence.

In order to determine which variables accounted the most for treatment
completion a discriminant function analysis was utilized. This statistical
procedure provides information as to which variables discriminate the
best between cases according to specified categories of dependent variables.*
In this instance demographic and severity measures constituted the inde-
pent variables and treatment termination status the dependent. Drinker
type was excluded from the analysis since it is a composite of a number
of other variables. Table 16 summarizes the three levels of termination
status according to the group means of all independent variables.

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* From an experimental standpoint, independent variables include those
  items that are predictors, while dependent variables constitute the
  criteria or outcome measures of the prediction. One predicts, or
  accounts for an effect, from independent to dependent measures.

TABLE 15

PARTICIPATION AND TREATMENT OUTCOME

INTERVENTION	COMPLETED - NO PROBATION INTERVENTION	COMPLETED - WITH PROBATION INTERVENTION	DID NOT ENROLL/COMPLETE
Level I Education	75.2%	20.2%	4.6%
Level II Therapeutic Education	71.2%	22.9%	5.9%
Level II Treatment	53.1%	31.0%	15.9%
Level II Treatment And Therapeutic Education	50.7%	27.8%	21.4%
TOTAL	60.0%	23.6%	16.7%

TABLE 16

DEMOGRAPHIC AND SEVERITY GROUP MEANS
ACCORDING TO TERMINATION STATUS

	AGE	SEX	MARITAL	WHITE	BLACK	HISPANIC	NATAMER
Completed-No Involvement	30.65	1.12	1.76	1.15	1.97	1.87	1.99
Completed-With Involvement	30.24	1.11	1.74	1.20	1.94	1.86	1.98
Did Not Complete	29.88	1.04	1.85	1.27	1.96	1.78	1.97
TOTAL	30.44	1.10	1.77	1.18	1.96	1.85	1.99

	DEGREE	INCASST	INDIGENT	BAC	MORT.	CONCRG	PRARREST	ACCIDENT
Completed-No Involvement	1.13	1.90	1.93	.169	11.38	2.79	0.19	1.75
Completed-With Involvement	0.98	1.85	1.85	.176	12.89	2.73	0.27	1.76
Did Not Complete	0.84	1.86	1.82	.186	14.80	2.71	0.47	1.80
TOTAL	1.05	1.89	1.89	.174	12.26	2.76	0.25	1.76

Key

Sex   1 = Male   2 = Female
Marital   1 = Single   2 = Married   3 = Div/Wid/Sep
Ethnic Group   1 = Yes   2 = No
Degree   0 = None   1 = High School   2 = AA   3 = BA or More
Income Assistance   1 = Yes   2 = No
Indigent   1 = Yes   2 = No
Conviction Charge   1 = Most Severe (e.g., DUI with prior)   2 = DUI   3 = DWAI
Accident   1 = Yes   2 = No

As Table 16 illustrates, successful terminations tended to have the following characteristics: they were older, female, single or married, Anglo, had a degree, not on income assistance nor indigent, they had lower blood alcohol levels at the time of arrest, lower Mortimer-Filkins scores, were convicted of lesser offenses, had fewer prior arrests and, consistent with earlier research, were more likely to have been in an accident when arrested. Not surprisingly, these results generally agreed with those presented previously on demographics and severity as related to interventions: less severe clients were sentenced to intervention of lesser intensity where, obviously, treatment success was easier to achieve. Exceptions to this occurred on the variables of age and accident involvement. However, previous research has demonstrated the significance of an accident in accounting for more positive outcome results (Booth and Grosswiler, 1978).

Two stepwise discriminate analyses were carried out, one with the three levels of termination status presented above and the other combining the categories of completed treatment with or without evaluators' involvement. Table 17 presents those interactions that were significant. Variables on this table are listed in rank-order, from those that are the most significant in terms of accounting for termination status to those that are the least significant. Variables not cited were insignificant. Using three levels of termination status (i.e., termination - no involvement, terminated - with involvement, did not enroll/complete) the Mortimer-Filkins, followed by prior arrests, indigency status, etc., were the best predictors of termination from treatment. To determine the direction of these variables in accounting for treatment termination status please refer to Table 16. As this table illustrates, those with Mortimer-Filkins scores less than 12, fewer prior arrests, not indigent, etc., were most likely to complete treatment successfully.

The two columns on the right summarize a similar analysis but with only two levels of termination status, completed treatment and did not complete treatment. According to this, prior arrests, the Mortimer-Filkins, sex, etc.,are the best predictors of whether a client will complete treatment. Again, turning to Table 16, those most likey to complete had fewer prior arrests, lower Mortimer-Filkins scores, were female, etc.

With these results in mind and recalling the differences observed on these variables among interventions we are in a position to look at treatment completion within individual education/treatment approches beginning with Level I Education (Table 18). Where categories of variables are small, caution should be exercised in the interpretation of findings. None of the interactions on this table were statistically significant although several approached significance (i.e., $p < .10$). These included sex, race, marital status, indigency status and accident involvement. As the figures on this table illustrate, successful Level I Education terminations were more likely to be female, Anglo, married, not indigent and not in an accident at the time of arrest. Blacks, although reporting fairly low successful completion rates without probation involvement, were more likely to complete the program than any other ethnic group.

TABLE 17

STEPWISE DISCRIMINATE FUNCTION ANALYSIS:
TERMINATION STATUS

THREE LEVELS OF TERMINATION STATUS		TWO LEVELS OF TERMINATION STATUS	
VARIABLE	F-RATIO	VARIABLE	F-RATIO
Mortimer-Filkins	18.68	Prior Arrest	29.89
Prior Arrests	14.41	Mortimer-Filkins	23.85
Indigent	12.20	Sex	19.51
Sex	10.79	Degree	17.00
Degree	9.64	Indigent	14.91
Native American	8.79	Native American	13.46
Black	7.94	BAC	12.18
BAC	7.26	Age	11.17
Age	6.75	Accident	10.35
Accident	6.29	Hispanic	9.54
White	5.86	Marital	8.86
Income Assistance	5.47		
Hispanic	5.14		

Two interactions among clients sentenced to Level II Therapeutic Education (Table 19) were statistically significant, age and conviction charge. Clients aged 21-30 had the lowest successful treatment rate while those over 40 had the highest success rate (X^2 = 28.61 $\underline{df}$ = 8, $p < .001$). According to conviction charge, those convicted of DUI reported only a 58% successful treatment rate without probation involvement compared to 74% for clients convicted of DWAI (X^2 = 9.01, $\underline{df}$ = 4, $p < .05$). In addition, there was a trend observed (i.e., $p < .10$) according to the variable of indigent status. Non-indigents were far less likely than indigents to require intervention by probation in completing treatment (73% versus 55%, respectively).

None of the interactions presented on Level II Therapy (Table 20) reached or even approached statistical significance although there were some rather striking differences observed within categories of variables. For example, clients with a college or advanced degree were far more likely to complete Level II Therapy without probation involvement than those with a high school degree or no degree. Clients with lower blood alcohol levels, lower Mortimer-Filkins scores and social drinkers also had higher treatment success rates than their more severe counterparts.

A number of significant interactions occurred in the analysis of demographics and termination status among Level II Therapeutic Education and Therapy clients (Table 21). Those 26-30 were the least likely to complete treatment, followed by clients under 20, while those over 30 were the most likely to complete (X^2 = 18.91, $\underline{df}$ = 8, $p < .02$). Interestingly, those over forty required more involvement by probation than any other age group. Native Americans had the lowest success rate among ethnic categories while Anglos had the highest and Blacks, similar to findings with Level I Education, had the greatest involvement with probation (X^2 = 22.65, $\underline{df}$ = 8, $p < .05$). Clients with a BA or advanced degree were most likely and those with no degree the least likely to complete this intervention successfully (X^2 = 18.48, $\underline{df}$ = 6, $p < .01$). According to both the income assistance and indigence variables, clients with economic difficulties were far less likely to complete treatment, particulary without probation involvement, than their counterparts who were better off economically (X^2 = 7.84, $\underline{df}$ = 2, $p < .02$; X^2 = 21.01, $\underline{df}$ = 2, $p < .001$, respectively).

Two severity items also reached statistical significance in this analysis. Clients convicted of DWAI were more successful, with or without involvement by probation, than those convicted of DUI (X^2 = 9.53, $\underline{df}$ = 4, $p < .05$). Those convicted of "other offenses had the highest treatment failure rate but the sample size was too small to be meaningful (N = 3). Finally, according to prior arrests, clients with two or more priors had more than twice the failure rate as those with no priors and nearly twice the rate of failure as those with one prior (X^2 = 24.66 $\underline{df}$ = 4, $p < .001$).

TABLE 18

DEMOGRAPHICS AND SEVERITY X TERMINATION STATUS
LEVEL I EDUCATION

ITEM	N	COMPLETED – NO PROBATION INTERVENTION %	COMPLETED – WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Age				
14-20	73	79.5	13.7	6.8
21-25	143	71.3	23.8	4.9
26-30	97	76.3	21.6	2.1
31-40	111	74.8	19.8	5.4
41-77	71	77.5	18.3	4.2
Sex				
Male	423	73.8	20.8	5.4
Female	72	84.7	15.3	0
Race				
White	427	75.9	20.1	4.0
Black	9	55.6	44.4	0
Hispanic	54	72.2	18.5	9.3
Native American	3	100	0	0
Other	3	66.7	0	33.3
Marital				
Single	239	74.1	21.3	4.6
Married	146	82.2	15.8	2.1
Div/Wid/Sep	110	69.1	22.7	8.2

TABLE 18 - CONTINUED

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Highest Degree				
None	103	67.0	25.2	7.8
High School/GED	258	79.1	16.7	4.3
AA/Voc/Tech	80	76.3	21.3	2.5
BA/Adv.	54	72.2	25.9	1.9
Income Assistance				
Yes	28	78.6	21.4	0
No	419	75.7	19.6	4.8
Indigent				
Yes	10	50.0	50.0	0
No	474	75.5	19.8	4.6
Accident				
Yes	87	74.7	16.1	9.2
No	397	75.3	20.9	3.8
BAC				
0-.149	220	74.1	21.8	4.1
.150-.199	99	76.8	18.2	5.1
.200-.249	22	72.7	22.7	4.5
.250+	5	60.0	40.0	0
Refused	96	74.0	19.8	6.3

TABLE 18 - CONTINUED

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Mortimer-Filkins				
0-11	401	77.6	18.0	4.5
12-15	56	67.9	25.0	7.1
16+	34	67.6	29.4	2.9
Prior Arrests				
0	459	75.6	19.8	4.6
1	26	73.1	26.9	0
2+	4	100	0	0
Drinking Type				
Social	369	74.5	20.1	5.4
Incipient - Problem	75	78.7	20.0	1.3
Problem	52	75.0	21.1	3.8
Arrest Charge				
DUI	474	75.3	20.3	4.4
DWAI	18	72.3	22.2	5.6
Other	3	66.7	0	33.3
Conviction Charge				
DUI	108	72.2	21.3	6.5
DWAI	387	76.0	19.9	4.1
Other	1	100	0	0

TABLE 19

DEMOGRAPHICS AND SEVERITY X TERMINATION STATUS
LEVEL II THERAPEUTIC EDUCATION

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Age				
14-20	75	72.0	26.7	1.3
21-25	157	59.2	33.1	7.6
26-30	118	70.3	20.3	9.3
31-40	96	79.2	16.7	4.2
41-77	79	86.1	10.1	3.8
Sex				
Male	476	70.2	23.5	6.3
Female	49	81.6	16.3	2.0
Race				
White	431	70.8	22.7	6.5
Black	13	69.2	30.8	0
Hispanic	70	78.6	17.1	4.3
Native American	7	42.9	57.1	0
Other	1	100	0	0
Marital				
Single	255	67.8	26.7	5.5
Married	158	77.2	17.1	5.7
Div/Wid/Sep	112	70.5	22.3	7.1

-37-

TABLE 19 - CONTINUED

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Highest Degree				
None	143	71.3	23.1	5.6
High School/GED	252	67.5	26.2	6.3
AA/Voc/Tech	90	73.3	20.0	6.7
BA/Adv.	38	92.1	5.3	2.6
Income Assistance				
Yes	42	69.0	26.2	4.8
No	413	72.2	21.5	6.3
Indigent				
Yes	33	54.5	39.4	6.1
No	463	73.2	21.8	5.0
Accident				
Yes	138	71.0	25.4	3.6
No	363	71.6	21.5	6.9
BAC				
0-.149	95	72.6	25.3	2.1
.150-.199	219	73.1	21.5	5.5
.200-.249	93	72.0	20.4	7.5
.250+	18	83.3	11.1	5.6
Refused	57	61.4	31.6	7.0

TABLE 19 - CONTINUED

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Mortimer-Filkins				
0-11	300	71.0	23.3	5.7
12-15	91	72.5	19.8	7.7
16+	124	71.8	22.6	5.6
Prior Arrests				
0	456	73.7	21.4	4.8
1	48	58.3	31.3	10.4
2+	6	66.7	16.7	16.7
Drinker Type				
Social	32	65.6	25.0	9.4
Incipient Problem	356	73.3	21.6	5.1
Problem	136	66.9	25.7	7.4
Arrest Charge				
DUI	511	71.2	23.1	5.7
DWAI	9	88.9	0	11.1
Other	5	40.0	40.0	20.0
Conviction Charge				
DUI	93	58.1	33.3	8.6
DWAI	431	74.0	20.6	5.3
Other	1	100	0	0

TABLE 20

DEMOGRAPHICS AND SEVERITY X TERMINATION STATUS

LEVEL II TREATMENT

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Age				
14-20	12	50.0	25.0	25.0
21-25	21	52.4	33.3	14.3
26-30	25	64.0	28.0	8.0
31-40	26	50.0	30.8	19.2
41-77	29	48.3	34.5	17.2
Sex				
Male	95	51.6	31.6	16.8
Female	18	61.1	27.8	11.1
Race				
White	86	51.2	33.7	15.1
Black	2	50.0	50.0	0
Hispanic	17	64.7	17.6	17.6
Native American	8	50.0	25.0	25.0
Other	0	N/A	N/A	N/A
Marital				
Single	39	56.4	25.6	17.9
Married	40	55.0	27.5	17.5
Div/Wid/Sep	33	45.5	42.4	12.1

TABLE 20 - CONTINUED

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Highest Degree				
None	29	58.6	31.0	10.3
High School/GED	66	43.9	33.3	22.7
AA/Voc/Tech	11	72.7	27.3	0
BA/Adv.	6	83.3	16.7	0
Income Assistance				
Yes	14	50.0	28.6	21.4
No	87	51.7	31.0	17.2
Indigent				
Yes	10	50.0	40.0	10.0
No	88	52.3	31.8	15.9
Accident				
Yes	16	62.5	31.3	6.3
No	95	51.6	30.5	17.9
BAC				
0-.149	18	77.8	22.2	0
.150-.199	35	54.3	28.6	17.1
.200-.249	17	47.1	35.3	17.6
.250+	16	56.3	31.3	12.5
Refused	13	38.5	38.5	23.1

TABLE 20 - CONTINUED

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED -WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Mortimer-Filkins				
0-11	35	68.6	20.0	11.4
12-15	19	36.8	42.1	21.1
16+	59	49.2	33.9	16.9
Prior Arrests				
0	64	56.3	23.4	20.3
1	27	55.6	29.6	14.8
2+	18	50.0		
Drinking Type				
Social	4	75.0	25.0	0
Incipent Problem	12	58.3	25.0	16.7
Problem	97	51.5	32.0	16.5
Arrest Charge				
DUI	108	50.9	32.4	16.7
DWAI	4	100	0	0
Other	1	100	0	0
Conviction Charge				
DUI	41	53.7	29.3	17.1
DWAI	71	53.5	31.0	15.5
Other	1	0	100	0

TABLE 21

DEMOGRAPHICS AND SEVERITY X TERMINATION STATUS
LEVEL II TREATMENT AND THERAPEUTIC EDUCATION

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Age				
14-20	87	44.8	28.7	26.4
21-25	185	52.4	27.6	20.0
26-30	171	42.7	29.2	28.1
31-40	170	61.8	21.2	17.1
41-77	152	48.7	33.6	17.8
Sex				
Male	687	50.5	27.2	22.3
Female	78	52.6	33.3	14.1
Race				
White	542	54.1	28.2	17.7
Black	31	35.5	38.7	25.8
Hispanic	173	43.4	25.4	31.2
Native American	14	42.9	14.3	42.9
Other	1	100	0	0
Marital				
Single	321	51.7	27.4	20.9
Married	243	53.1	25.5	21.4
Div/Wid/Sep	201	46.3	31.3	22.4

-43-

TABLE 21 - CONTINUED

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Highest Degree				
None	270	44.8	26.7	28.5
High School/GED	368	53.8	28.3	17.9
AA/Voc/Tech	78	47.4	32.1	20.5
BA/Adv.	46	69.6	19.6	10.9
Income Assistance				
Yes	103	37.9	36.9	25.2
No	546	52.6	26.4	21.1
Indigent				
Yes	146	34.9	33.6	31.5
No	550	55.5	26.0	18.5
Accident				
Yes	192	54.7	24.0	21.4
No	521	49.1	28.6	22.3
BAC				
0-.149	94	48.9	28.7	22.3
.150-.199	202	55.9	28.2	15.8
.200-.249	205	52.2	25.9	22.0
.250+	106	46.2	33.0	20.8
Refused	85	51.8	24.7	23.5

TABLE 21 -- CONTINUED

ITEM	N	COMPLETED - NO PROBATION INTERVENTION %	COMPLETED - WITH PROBATION INTERVENTION %	DID NOT ENROLL/COMPLETE %
Mortimer-Filkins				
0-11	251	54.6	24.7	20.7
12-15	175	50.9	26.9	22.3
16+	309	49.2	29.4	21.4
Prior Arrests				
0	464	53.4	29.1	17.5
1	208	47.6	28.4	24.0
2+	68	42.6	14.7	42.6
Drinker Type				
Social	23	47.8	34.8	17.4
Incipent Problem	82	61.0	17.1	22.0
Problem	658	49.7	29.0	21.3
Arrest Charge				
DUI	744	51.2	27.4	21.4
DWAI	10	20.0	50.0	30.0
Other	11	45.5	36.4	18.2
Conviction Charge				
DUI	181	43.1	32.6	24.3
DWAI	581	53.2	26.5	20.3
Other	3	33.3	0	66.7

To summarize this section, it was found that termination from treatment was related to the intensity of the intervention and the demographics and severity of the population. Less severe clients had better outcome overall as did interventions of lesser intensity where these types of clients tended to be sentenced. Successful terminations were: older, female, single or married, Anglo, more education, not on income assistance nor indigent, they had lower blood alcohol levels when arrested, lower Mortimer-Filkins scores, fewer prior arrests, were more likely to be convicted of DWAI not DUI and they were more likely to have been in an accident when the arrest occurred.

In the discriminant function analysis it was observed that the five best determinants of termination status were: the Mortimer-Filkins, prior arrests, indigency status, sex and education. These variables were significant with both the two and three levels of termination status, although their rank order was not identical between the two analyses.

Finally, in the analyses of individual modalities, demographic and severity variables could best account for differences in termination from treatment among clients sentenced to Level II Therapeutic Education and Treatment and Level I Education. Although categories within variables revealed differences according to termination status, these variables had their lowest discriminating power among clients participating in Level II Therapy.

RECIDIVISM

The final section of this paper will focus on recidivism, defined as re-arrests for drinking and driving. Summary results are presented below according to each intervention. Due to the population differences among interventions, comparisons of interventions on recidivism should be avoided. Rather, attention should address the issue of what types of clients within each intervention are more likely to recidivise.

The largest recidivist rate was found among clients who were required to participate in education and/or treatment but failed to enroll (18%). The next highest rearrest figures were observed in the Level II Therapy (13.5%) and Level II Treatment and Therapeutic Education (12.8%) groups. Level I Education participants, the least severe population in the study, posted a 5.6% recidivism rate, followed by Level II Therapeutic Education participants (7%). Between these extremes were those subjects not required to participate (11%), some of whom were as severe as clients participating in the most intense intervention, but sentenced to jail instead, and others not nearly as severe. In a separate analysis of non-participants according to drinker type the following recidivist figures were observed: problem drinkers, 12.7%; incipient-problem drinkers, 5.7%; and, social drinkers, 15.2%.

TABLE 22

PARTICIPATION AND RECIDIVISM

INTERVENTION	NOT REARRESTED	REARRESTED PRIOR TO TREATMENT	REARRESTED DURING TREATMENT	REARRESTED AFTER TREATMENT	REARRESTED DID NOT ENROLL/ COMPLETE	REARRESTED TREATMENT NOT REQUIRED
Level I Education	94.4	0	.2	4.6	.8	N/A
Level II Therapeutic Education	93.0	1.4	.7	3.9	1.0	N/A
Level II Treatment	86.5	3.4	2.0	6.1	2.0	N/A
Level II Treatment And Therapeutic Education	87.2	2.6	2.2	4.7	3.2	N/A
None-But Required	82.1	N/A	N/A	N/A	17.9	N/A
Not Required	89.0	N/A	N/A	N/A	N/A	11.0
Total	90.0	1.5	1.2	4.1	2.5	.7

Aside from overall rearrest figures, of interest is when re-arrests occurred. For Level I participants nearly all subsequent arrests occurred after the intervention, in part due to the short length of this modality. Level II Therapeutic Education clients were also more likely to be rearrested after the intervention, although not to the extent of those in Level I Education. On the other hand, both the Level II Treatment and the combined Level II Treatment and Therapeutic Education groups were almost as likely to be rearrested prior to or during treatment as they were following the intervention. The highest rate of rearrests for those who did not enroll or complete their requirements were found within the Level II Treatment and Therapeutic Education group.

Similar to the earlier assessment of treatment completion, a discriminant function analysis was utilized to determine what factors could best account for recidivism. Four sets of analyses were undertaken including: (1) the total sample; (2) those participating in an intervention whether they were required to or not; (3) those sentenced to education and/or therapy who failed to enroll; and, (4) those who were not required to participate and did not do so.

Rearrests for drinking and driving could be conceptualized as occurring at five different points, as shown on Table 22. However, for these analyses they were collapsed in the following two ways, depending upon the population under assessment: (1) all rearrests, and (2) rearrests during or after treatment or rearrests for those not completing treatment. For both those who did not enter education/treatment, although sentenced to such, as well as for those who were not required to and did not participate, the only figures than can be employed are those where rearrests occurred outside of education/treatment. Among those who participated in an intervention, rearrests taking place during or after treatment or within the non-completion category should be considered as the dependent variable. Although this decision can be argued as it includes client not receiving the "full benefits" of the intervention, it is the more conservative and accepted approach.

> "Although a defensible agreement can be made for excluding from evaluation patients who drop out of treatment very rapidly (since they might be considered as inadequately exposed to the benefits of therapy), patients who drop out of treatment later on, for reasons directly related to therapy, need to be retained for data analyses" (Emrick and Hansen, 1985).

In the present study it was not possible to know at what point during education/treatment the rearrest occurred nor when clients dropped out of treatment. Rather than exclude these subjects and limit the analysis to only those recidivists arrested after treatment, they were included. These recidivists also made up the highest percentage of rearrested clients. Rearrests occurring prior to treatment were, obviously, excluded for this population.

TABLE 23

DEMOGRAPHIC AND SEVERITY GROUP MEANS ACCORDING TO RECIDIVISM

A. TOTAL POPULATION

RECIDIVISM	AGE	SEX	MARITAL	WHITE	BLACK	NATAMER	HISPANIC	DEGREE
Yes	31.69	1.08	1.92	1.22	1.99	1.95	1.83	0.90
No	30.49	1.11	1.77	1.20	1.97	1.98	1.86	1.05
Total	20.63	1.11	1.79	1.20	1.97	1.98	1.86	1.03

RECIDIVISM	INCASST	BAC	MORT	CONCRG	PRARREST	ACCIDENT	TERMSTAT
Yes	1.90	.187	14.48	2.77	0.35	1.75	2.00
No	1.89	.173	12.02	2.76	0.26	1.77	1.59
Total	1.89	.175	12.30	2.76	0.27	1.77	1.63

B. EDUCATION/TREATMENT PARTICIPANTS

RECIDIVISM	AGE	SEX	MARITAL	WHITE	BLACK	NATAMER	HISPANIC	DEGREE
Yes	31.90	1.09	1.93	1.21	1.99	1.97	1.83	0.94
No	30.35	1.12	1.76	1.19	1.97	1.99	1.86	1.06
Total	30.48	1.12	1.77	1.19	1.97	1.99	1.85	1.05

RECIDIVISM	INCASST	BAC	MORT	CONCRG	PRARREST	ACCIDENT	TERMSTAT
Yes	1.88	.189	13.85	2.76	0.40	1.75	1.77
No	1.89	.173	11.97	2.76	0.25	1.76	1.44
Total	1.89	.174	12.13	2.76	0.26	1.76	1.47

Key

Sex   1 = Male   2 = Female
Marital   1 = Single   2 = Married   3 = Div/Wid/Sep
Ethnic Group   1 = Yes   2 = No
Degree   0 = None   1 = High School   2 = AA   3 = BA or More
Income Assistance   1 = Yes   2 = No
Indigent   1 = Yes   2 = No
Conviction Charge   1 = Most Severe (e.g., DUI Prior)   2 = DUI   3 = DWAI
Accident   1 = Yes   2 = No
Termination Status   1 = Suc., no intervention   2 = Suc., with intervention   3 = Did not enroll/complete

TABLE 23

CONTINUED

C. PARTICIPATION REQUIRED BUT DID NOT ENROLL

RECIDIVISM	AGE	SEX	MARITAL	WHITE	BLACK	NATAMER	HISPANIC	DEGREE
Yes	32.47	1.06	1.76	1.12	2.00	2.00	1.88	1.12
No	29.78	1.02	1.85	1.19	1.95	1.97	1.90	0.95
Total	30.38	1.03	1.83	1.17	1.96	1.97	1.89	0.99

RECIDIVISM	INCASST	BAC	MORT	CONCRG	PRARREST	ACCIDENT	TERMSTAT
Yes	2.00	.194	16.88	2.94	0.24	1.94	-
No	1.86	.178	12.49	2.73	0.42	1.86	-
Total	1.89	.182	13.47	2.78	0.38	1.87	-

D. NOT REQUIRED TO PARTICIPATE

RECIDIVISM	AGE	SEX	MARITAL	WHITE	BLACK	NATAMER	HISPANIC	DEGREE
Yes	29.27	1.00	1.73	1.27	2.00	1.82	1.91	0.45
No	32.39	1.05	1.79	1.27	1.96	1.91	1.88	0.93
Total	31.99	1.05	1.78	1.27	1.97	1.90	1.88	0.87

RECIDIVISM	INCASST	BAC	MORT	CONCRG	PRARREST	ACCIDENT	TERMSTAT
Yes	1.91	.159	14.27	2.64	0.54	1.82	-
No	1.91	.171	11.73	2.75	0.39	1.81	-
Total	1.91	.169	12.06	2.73	0.41	1.81	-

Key

Sex   1 = Male   2 = Female
Marital   1 = Single   2 = Married   3 = Div/Wid/Sep
Ethnic Group   1 = Yes   2 = No
Degree   0 = None   1 = High School   2 = AA   3 = BA or More
Income Assistance   1 = Yes   2 = No
Indigent   1 = Yes   2 = no
Conviction Charge   1 = Most Severe (e.g., DUI Prior)   2 = DUI   3 = DWAI
Accident   1 = Yes   2 = No
Termination Status   1 = Suc., no intervention   2 = Suc, with intervention   3 = Did not enroll/complete

In the total sample it could be argued that the most appropriate re-
cidivist category would include all rearrests. For comparison purposes
with the participating population, however, an analysis of rearrests
occurring during or after treatment or among non-completions will also
be performed. Similarly, in order to round out the analysis, all re-
arrests will be employed as the dependent variable in an assessment of
those who participated in an intervention. Comparison figures will be
presented only to provide the reader with a more complete picture and
will be limited to the stepwise analysis (i.e., similar to Table 17).
They are not intended to be the primary focus.

Findings will begin with a presentation of the two recidivist categories
(i.e., yes or no) according to the group means of all independent vari-
ables. Table 23 illustrates the findings for the total population and
each of three subgroups.

Table 23 illustrates differences on recidivist categories for the
demographic and severity items included in earlier analyses. To de-
termine whether or not these differences were statistically meaningful,
as well as the relative importance of each variable, stepwise discrim-
inate function analyses were performed similarly to those on termina-
tion status. Table 24 summarizes the findings for each of the four
groups plus the two comparisons mentioned previously. Variables are
listed in rank order, from those that are the most significant in terms
of accounting for recidivism, to those the least significant.

The "most arrests" column under the total population and the group of
clients who participated in an intervention includes rearrests during
and after treatment as well as rearrests occurring among those who en-
rolled but did not complete treatment. In other words, it excludes
rearrests prior to treatment (for those sentences to such) and rearrests
among those not required to participate in an intervention. Those
columns with an * are shown for comparison purposes only. It is of
interest that these columns, when compared to their more relevant arrest
category, show little overall difference.

In the total population non-recidivists had the following characteris-
tics, in order of significance: (1) higher treatment success rates;
(2) lower Mortimer-Filkins scores; (3) Black; (4) lower blood alcohol
concerntrations when originally arrested; (5) not divorced, widowed or
separated; (6) convicted of a less serious offense (i.e., DWAI); and,
(7) not Native American. When "most arrests" served as the dependent
variable these same variables, with the exception of Native American,
were also statistically significant.

Among clients participating in an intervention, whether required to or
not (although most were required to participate), non-recidivists
according to "most arrests" were as follows: (1) completed treatment
successfully; (2) Lower BAC levels when arrested; (3) not divorced/
widowed/separated; (4) Black; (5) fewer prior arrests; and, (6) lower
Mortimer-Filkins scores. When all arrests were employed in the
analysis, prior arrests was not statistically significant while con-
viction charge and native American ethnicity were meaningful.

-51-

TABLE 24

STEPWISE DISCRIMINATE FUNDING ANALYSIS

RECIDIVISM

| | TOTAL POPULATION | | | | PARTICIPANTS | | | | | | |
| | ALL ARRESTS | | *MOST ARRESTS | | *ALL ARRESTS | | MOST ARRESTS | | DID NOT ENROLL | | NOT REQUIRED | |
VARIABLE	F-RATIO	VARIABLE	F-RATIO	VARIABLE	F-RATIO	VARIABLE	F-RATIO	VARIABLE	F-RATIO	VARIABLE	F-RATIO
Term. Status	29.13	Term. Status	18.93	Term. Status	17.57	Term. Status	21.15	M.F.	4.18	Degree	3.33
M.F.	20.04	BAC	13.62	BAC	12.96	BAC	13.85	Con Crg	4.90	Sex	2.29
Black	15.18	M.F.	10.41	M.F.	10.44	Marital	10.23	Inc.Asst	3.78		
BAC	12.42	Black	8.73	Marital	8.81	Black	8.30	Priors	3.23		
Marital	10.42	Con Crg	7.38	Black	7.81	Priors	7.00	Age	2.81		
Con Crg	9.00	Marital	6.49	Con Crg	6.71	M.F.	6.02				
Nat Amer	7.96			Nat Amer	5.93						
Total N											
Recid.	154		121		125		103		17		11
Non Recid	1207		1207		1065		1065		59		75
Total %											
Recid	11.3		9.1		10.5		8.8		22.4		12.8
Non Recid	88.7		90.9		89.5		91.2		77.6		87.2

* For Comparison Only

-52-

Clients convicted or more serious charges, as well as non-Native Americans who participated in treatment, were less likely to become recidivists.

For those who were required to participate in an intervention but failed to enroll non-recidivists displayed these characteristics: (1) lower Mortimer-Filkins scores; (2) convicted of less severe offenses; (3) not on income assistance; (4) more prior arrests; and, (5) they were younger. It is interesting that the non-recidivists in this group averaged nearly twice the prior arrest rate as the recidivists ($\overline{X}$ = .42 vs $\overline{X}$ = .24). While this finding may be unrepresentative (N=76), it could also indicate the effect of prior DUI/DWAI arrest combined with non-compliance of their sentence relevant to participating in an intervention.

Finally, in the group of subjects who were not required to participate, nor did they, non-recidivists were: (1) better educated; and (2) more likely to be female. In fact, all of the recidivists in this population were male.

Summarizing these findings, it is apparent that enrolling in education and/or treatment is an important determinant of recidivism since this group had half the rate of recidivism as those who were required to enroll but failed to do so (i.e., 10.5% or 8.8%, all arrests and most arrests, respectively, versus 22.4% in the discriminate function analysis). Even in the analysis on Table 22, which was not as demanding in respect to missing data, non-enrollees posted the highest recidivism rate. Moreover, termination status, successful or non-successful, was the most significant discriminator between the non-recidivists and recidivist categories. Other meaningful variables in these analyses included the severity measures of blood alcohol level, Mortimer-Filkins, prior arrests and conviction charge. In the participation group marital status and whether or not the client was Black were also significant, while among non-enrollees required to participate, income assistance and age were significant.

For subjects who did not enroll as they were not required to, education and sex were significant. This was the only analysis in which these variables were prominent. The finding that non-participating social drinkers had a 15.2% recidivism rate, the highest observed, should be emphasized.

Similar to the Chi-Square analyses of individual intervention and demographics/severity X termination status, recidivism will be assessed. Again, where sample sizes are small, caution needs to be exercised in the interpretation of findings. This analysis begins with Level I Education participants, Table 25.

None of the interactions on this table were significant nor did they approach significance. The closest was observed with marital status and the Mortimer Filkins ($p < .20$). Clients divorced/widowed/separated had the highest recidivist rates as did those scoring 12-15 on the Mortimer-Filkins. Interestingly, subjects scoring below 12 had nearly the same rate of recidivism as subjects scoring 16 or more.

-53-

TABLE 25

DEMOGRAPHICS AND SEVERITY X RECIDIVISM
LEVEL 1 EDUCATION

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Age						
14-20	78	93.6	0.0	0.0	5.1	1.3
21-25	153	97.4	0.0	.7	2.0	0.0
26-30	100	95.0	0.0	0.0	5.0	0.0
31-40	113	92.0	0.0	0.0	6.2	1.8
41-77	76	92.1	0.0	0.0	6.6	1.3
Sex						
Male	446	94.4	0.0	.2	4.5	.9
Female	74	94.6	0.0	0.0	5.4	0.0
Race						
White	442	94.3	0.0	0.0	5.0	.7
Black	10	100	0.0	0.0	0.0	0.0
Hispanic	61	95.1	0.0	1.6	1.6	1.6
Nat. Amer.	5	80.0	0.0	0.0	2.0	0.0
Other	2	100	0.0	0.0	0.0	0.0
Marital						
Single	255	94.9	0.0	.4	4.3	.4
Married	150	96.0	0.0	0.0	4.0	0.0
Div/Wid/Sep	115	91.3	0.0	0.0	6.1	2.6
Highest Degree						
None	115	91.3	0.0	0.0	6.1	2.6
High School/GED	267	94.8	0.0	.4	4.5	.4
AA/Voc/Tech.	82	97.6	0.0	0.0	2.4	0.0
BA/Adv.	56	94.6	0.0	0.0	5.4	0.0

TABLE 25

CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Income Assistance						
Yes	29	96.6	0.0	0.0	3.4	0.0
No	439	94.3	0.0	.2	4.6	.9
Indigent						
Yes	11	100	0.0	0.0	0.0	0.0
No	485	94.6	0.0	.2	4.5	.6
Accident						
Yes	91	97.8	0.0	0.0	2.2	0.0
No	417	94.2	0.0	.2	4.6	1.0
BAC						
0-.149	230	96.1	0.0	.4	2.2	1.3
.150-.199	102	92.2	0.0	0.0	6.9	1.0
.200-.249	25	96.0	0.0	0.0	4.0	0.0
.250+	8	87.5	0.0	0.0	12.5	0.0
Refused	100	94.0	0.0	0.0	6.0	0.0
Mortimer-Filkens						
0-11	418	94.7	0.0	0.0	4.5	.7
12-15	58	91.4	0.0	1.7	5.2	1.7
16+	39	94.9	0.0	0.0	5.1	0.0

TABLE 25

CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Prior Arrests						
0	481	94.2	0.0	.2	4.8	.8
1	29	96.6	0.0	0.0	3.4	0.0
2+	4	100	0.0	0.0	0.0	0.0
Drinker Type						
Social	382	94.8	0.0	.3	3.9	1.0
Incipient Problem	79	92.4	0.0	0.0	7.6	0.0
Problem	60	95.0	0.0	0.0	5.0	0.0
Arrest Charge						
DUI	498	94.8	0.0	.2	4.8	.8
DWAI	19	100	0.0	0.0	0.0	0.0
Others	3	100	0.0	0.0	0.0	0.0
Conviction Charge						
DUI	111	97.3	0.0	0.0	1.8	.9
DWAI	408	93.6	0.0	.2	5.4	.7
Other	1	100	0.0	0.0	0.0	0.0

TABLE 26

DEMOGRAPHICS AND SEVERITY X RECIDIVISM
LEVEL II THERAPEUTIC EDUCATION

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Age						
14-20	85	96.5	0.0	0.0	3.5	0.0
21-25	177	89.8	3.4	1.1	5.1	.6
26-30	126	93.7	0.0	.8	3.1	2.4
31-40	106	94.3	0.0	0.0	4.7	.9
41-77	93	93.5	2.2	1.1	2.2	1.1
Sex						
Male	530	92.8	1.3	.8	4.0	1.1
Female	57	94.7	1.8	0.0	3.5	0.0
Race						
White	471	93.8	1.5	.6	3.2	.8
Black	13	100	0.0	0.0	0.0	0.0
Hispanic	91	87.9	1.1	1.1	7.7	2.2
Nat. Amer.	7	85.7	0.0	0.0	14.3	0.0
Other	2	100	0.0	0.0	0.0	0.0
Marital						
Single	286	93.7	1.4	1.0	3.1	.7
Married	174	92.0	1.1	.6	5.1	1.1
Div/Wid/Sep	126	92.9	1.6	0.0	4.0	1.6
Highest Degree						
None	166	90.4	2.4	.6	6.0	.6
High School/GED	279	94.3	1.1	.4	3.6	.7
AA/Voc/Tech	97	91.8	1.0	1.0	3.1	3.1
BA/Adv.	43	97.7	0.0	2.3	0.0	0.0

TABLE 26

CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Income Assistance						
Yes	51	90.2	0.0	3.9	5.9	0.0
No	46	93.5	1.5	.2	3.7	1.1
Indigent						
Yes	48	95.8	4.2	0.0	0.0	0.0
No	501	94.2	1.2	.4	4.0	.2
Accident						
Yes	148	91.2	2.0	.7	4.7	1.4
No	414	93.7	1.0	.7	3.6	1.0
BAC						
0-.149	108	94.4	1.9	1.9	1.9	0.0
.150-.199	241	93.4	1.2	.8	3.7	.8
.200-.249	105	86.7	1.9	0.0	8.6	2.9
.250+	24	91.7	4.2	0.0	0.0	4.2
Refused	65	95.4	0.0	0.0	4.6	0.0
Mortimer-Filkens						
0-11	337	92.6	1.5	.6	4.2	1.2
12-15	97	91.8	2.1	2.1	3.1	1.0
16+	142	94.4	.7	0.0	4.2	.7

TABLE 26

CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Prior Arrests						
0	510	93.1	1.2	.8	4.1	.8
1	54	96.3	1.9	0.0	1.9	0.0
2+	8	87.5	0.0	0.0	0.0	12.5
Drinker Type						
Social	37	94.6	2.7	0.0	0.0	2.7
Incipient Problem	398	91.7	1.3	1.0	4.8	1.3
Problem	151	96.0	1.3	0.0	2.6	0.0
Arrest Charge						
DUI	574	93.4	1.2	.7	3.8	.9
DWAI	10	70.0	10.0	0.0	10.0	10.0
Others	5	100	0.0	0.0	0.0	0.0
Conviction Charge						
DUI	106	96.2	.9	0.0	1.9	.9
DWAI	480	92.3	1.5	.8	4.4	1.0
Other	1	100	0.0	0.0	0.0	0.0

TABLE 27

DEMOGRAPHICS AND SEVERITY X RECIDIVISM
LEVEL II TREATMENT

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Age						
14-20	17	82.4	11.8	0.0	0.0	5.9
21-25	27	77.8	3.7	3.7	11.1	3.7
26-30	29	89.7	3.4	3.4	3.4	0.0
31-40	36	86.1	0.0	2.8	8.3	2.8
41-77	39	92.3	2.6	0.0	5.1	0.0
Sex						
Male	126	87.3	2.4	1.6	6.3	2.4
Female	22	81.8	9.1	4.5	4.5	0.0
Race						
White	104	86.5	3.8	1.0	6.7	1.9
Black	2	100	0.0	0.0	0.0	0.0
Hispanic	26	84.6	3.8	7.7	3.8	0.0
Nat. Amer.	16	87.5	0.0	0.0	6.3	6.3
Other	0	N/A	N/A	N/A	N/A	N/A
Marital						
Single	52	80.8	5.8	0.0	9.6	3.8
Married	45	93.3	2.2	2.2	2.2	0.0
Div/Wid/Sep	50	88.0	2.0	4.0	4.0	2.0
Highest Degree						
None	48	89.6	2.1	2.1	6.3	0.0
High School/GED	75	84.0	5.3	1.3	5.3	4.0
AA/Voc/Tech	15	93.3	0.0	0.0	6.7	0.0
BA/Adv.	9	88.9	0.0	11.1	0.0	0.0

TABLE 27
CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Income Assistance						
Yes	15	93.3	0.0	0.0	0.0	6.7
No	121	88.4	3.3	1.7	5.0	1.7
Indigent						
Yes	12	100	0.0	0.0	0.0	0.0
No	104	83.7	4.8	1.9	6.7	2.9
Accident						
Yes	21	90.5	0.0	0.0	4.8	4.8
No	125	86.4	4.0	2.4	5.6	1.6
BAC						
0-.149	24	91.7	0.0	0.0	8.3	0.0
.150-.199	45	88.9	2.2	2.2	4.4	2.2
.200-.249	21	81.0	9.5	4.8	4.8	0.0
.250+	20	80.0	5.0	0.0	15.0	0.0
Refused	21	85.7	4.8	0.0	4.8	4.8
Mortimer-Filkens						
0-11	45	91.1	0.0	0.0	8.9	0.0
12-15	27	85.2	7.4	3.7	3.7	0.0
16+	76	84.2	3.9	2.6	5.3	3.9

TABLE 27

CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Prior Arrests						
0	84	86.9	2.4	2.4	6.0	2.4
1	36	91.7	2.8	0.0	2.8	2.8
2+	24	79.2	4.2	4.2	12.5	0.0
Drinker Type						
Social	8	100	0.0	0.0	0.0	0.0
Incipient Problem	17	100	0.0	0.0	0.0	0.0
Problem	123	83.7	4.1	2.4	7.3	2.4
Arrest Charge						
DUI	142	85.9	3.5	2.1	6.3	2.1
DWAI	5	100	0.0	0.0	0.0	0.0
Others	1	100	0.0	0.0	0.0	0.0
Conviction Charge						
DUI	59	88.1	1.7	5.1	3.4	1.7
DWAI	88	85.2	4.5	0.0	8.0	2.3
Other	1	100	0.0	0.0	0.0	0.0

TABLE 28

DEMOGRAPHICS AND SEVERITY X RECIDIVISM
LEVEL II TREATMENT AND THERAPEUTIC EDUCATION

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Age						
14-20	109	85.3	5.5	0.0	5.5	7.7
21-25	230	87.0	2.2	2.2	4.3	4.3
26-30	214	89.7	1.4	2.3	3.7	2.8
31-40	204	88.2	2.5	3.4	4.9	1.0
41-77	175	84.6	2.9	2.3	5.7	4.6
Sex						
Male	838	86.6	2.7	2.3	4.8	3.6
Female	94	92.6	1.1	2.1	4.3	0.0
Race						
White	657	86.1	2.6	2.6	5.6	3.0
Black	37	89.2	0.0	2.7	2.7	5.4
Hispanic	218	89.9	3.2	1.4	2.3	3.2
Nat. Amer.	15	86.7	0.0	0.0	6.7	6.7
Other	1	100	0.0	0.0	0.0	0.0
Marital						
Single	395	87.1	2.8	1.8	5.3	3.0
Married	295	89.5	1.7	2.7	3.7	2.4
Div/Wid/Sep	242	84.7	3.3	2.5	5.0	4.5
Highest Degree						
None	320	88.4	1.9	1.9	3.8	4.1
High School/GED	456	86.4	3.1	2.4	5.3	2.9
AA/Voc/Tech	100	88.0	2.0	1.0	6.0	3.0
BA/Adv.	52	86.5	3.8	3.8	3.8	1.9

TABLE 28

CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Income Assistance						
Yes	127	88.2	3.1	2.4	3.9	2.4
No	686	86.6	2.5	2.5	5.0	3.5
Indigent						
Yes	195	89.7	2.1	2.1	2.1	4.1
No	636	87.6	2.5	1.9	4.9	3.1
Accident						
Yes	222	87.4	3.6	1.8	3.2	4.1
No	655	87.5	2.1	2.3	5.3	2.7
BAC						
0-.149	112	84.8	5.4	1.8	4.5	3.6
.150-.199	244	88.5	2.5	2.5	5.3	1.2
.200-.249	245	86.9	2.9	1.6	4.1	4.5
.250+	127	85.0	1.6	2.4	7.1	3.9
Refused	118	89.8	1.7	2.5	3.4	2.5
Mortimer- Filkens						
0-11	312	87.5	1.9	2.9	3.2	4.5
12-15	208	88.5	2.4	2.9	2.9	3.4
16+	374	86.4	3.5	1.1	7.0	2.1

TABLE 28
CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Prior Arrests						
0	566	87.6	3.0	1.8	4.8	2.8
1	252	89.3	1.6	2.4	4.8	2.0
2+	87	79.3	3.4	3.4	4.6	9.2
Drinker Type						
Social	26	96.2	0.0	0.0	0.0	3.8
Incipient Problem	101	90.1	0.0	4.0	3.0	3.0
Problem	803	86.6	3.0	2.1	5.1	3.2
Arrest Charge						
DUI	905	87.0	2.5	2.3	4.9	3.3
DWAI	12	91.7	8.3	0.0	0.0	0.0
Others	15	100	0.0	0.0	0.0	0.0
Conviction Charge						
DUI	236	83.5	3.8	2.4	5.9	4.2
DWAI	693	88.5	2.2	2.2	4.3	2.9
Other	3	100	0.0	0.0	0.0	0.0

TABLE 29

DEMOGRAPHICS AND SEVERITY X RECIDIVISM
DID NOT ENROLL/COMPLETE

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Age						
14-20	12	83.3	N/A	N/A	N/A	16.7
21-25	30	80.0	N/A	N/A	N/A	20.0
26-30	19	94.7	N/A	N/A	N/A	5.3
31-40	31	74.2	N/A	N/A	N/A	25.8
41-77	14	85.7	N/A	N/A	N/A	14.3
Sex						
Male	104	82.7	N/A	N/A	N/A	17.3
Female	2	50.0	N/A	N/A	N/A	50.0
Race						
White	86	81.4	N/A	N/A	N/A	18.6
Black	4	100	N/A	N/A	N/A	0.0
Hispanic	14	78.6	N/A	N/A	N/A	21.4
Nat. Amer.	2	100	N/A	N/A	N/A	0
Other	0	N/A	N/A	N/A	N/A	N/A
Marital						
Single	51	80.4	N/A	N/A	N/A	19.6
Married	21	81.0	N/A	N/A	N/A	19.0
Div/Wid/Sep	34	85.3	N/A	N/A	N/A	14.7
Highest Degree						
None	31	80.6	N/A	N/A	N/A	19.4
High School/GED	55	85.5	N/A	N/A	N/A	14.5
AA/Voc/Tech	17	76.5	N/A	N/A	N/A	23.5
BA/Adv.	3	66.7	N/A	N/A	N/A	33.3

TABLE 29

CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Income Assistance						
Yes	14	100	N/A	N/A	N/A	0.0
No	85	77.6	N/A	N/A	N/A	22.4
Indigent						
Yes	9	66.7	N/A	N/A	N/A	33.3
No	89	85.4	N/A	N/A	N/A	14.6
Accident						
Yes	13	92.3	N/A	N/A	N/A	7.7
No	93	80.6	N/A	N/A	N/A	19.4
BAC						
0-.149	21	81.0	N/A	N/A	N/A	19.0
.150-.199	31	87.1	N/A	N/A	N/A	12.9
.200-.249	23	78.3	N/A	N/A	N/A	21.7
.250+	10	60.0	N/A	N/A	N/A	40.0
Refused	14	100	N/A	N/A	N/A	0.0
Mortimer-Filkens						
0-11	45	84.4	N/A	N/A	N/A	15.6
12-15	24	83.3	N/A	N/A	N/A	16.7
16+	37	78.4	N/A	N/A	N/A	21.6

TABLE 29
CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Prior Arrests						
0	64	81.0	N/A	N/A	N/A	19.0
1	17	88.2	N/A	N/A	N/A	11.8
2+	10	80.0	N/A	N/A	N/A	20.0
Drinker Type						
Social	62	79.0	N/A	N/A	N/A	21.0
Incipient Problem	28	85.7	N/A	N/A	N/A	14.3
Problem	16	87.5	N/A	N/A	N/A	12.5
Arrest Charge						
DUI	103	81.6	N/A	N/A	N/A	18.4
DWAI	1	100	N/A	N/A	N/A	0
Others	2	100	N/A	N/A	N/A	0.0
Conviction Charge						
DUI	26	88.5	N/A	N/A	N/A	11.5
DWAI	80	80.0	N/A	N/A	N/A	20.0
Other	0	N/A	N/A	N/A	N/A	N/A

TABLE 30

DEMOGRAPHICS AND SEVERITY X RECIDIVISM
PARTICIPATION NOT REQUIRED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Age						
14-20	17	76.5	N/A	N/A	N/A	23.5
21-25	25	88.0	N/A	N/A	N/A	12.0
26-30	29	93.1	N/A	N/A	N/A	6.9
31-40	38	92.1	N/A	N/A	N/A	7.9
41-77	37	89.2	N/A	N/A	N/A	10.8
Sex						
Male	134	88.1	N/A	N/A	N/A	11.9
Female	12	100	N/A	N/A	N/A	0.0
Race						
White	106	89.6	N/A	N/A	N/A	10.4
Black	5	80.0	N/A	N/A	N/A	20.0
Hispanic	24	87.5	N/A	N/A	N/A	12.5
Nat. Amer.	9	88.9	N/A	N/A	N/A	11.1
Other	1	100	N/A	N/A	N/A	0.0
Marital						
Single	55	87.3	N/A	N/A	N/A	12.7
Married	46	93.5	N/A	N/A	N/A	6.5
Div/Wid/Sep	44	96.4	N/A	N/A	N/A	13.6
Highest Degree						
None	57	86.0	N/A	N/A	N/A	14.0
High School/GED	63	88.9	N/A	N/A	N/A	11.1
AA/Voc/Tech	14	100	N/A	N/A	N/A	0.0
BA/Adv.	11	90.9	N/A	N/A	N/A	9.1

TABLE 30

CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Income Assistance						
Yes	15	93.3	N/A	N/A	N/A	6.7
No	121	87.6	N/A	N/A	N/A	12.4
Indigent						
Yes	8	87.5	N/A	N/A	N/A	12.5
No	81	92.6	N/A	N/A	N/A	7.4
Accident						
Yes	30	83.3	N/A	N/A	N/A	16.7
No	110	90.0	N/A	N/A	N/A	10.0
BAC						
0-.149	35	80.0	N/A	N/A	N/A	20.0
.150-.199	34	94.1	N/A	N/A	N/A	5.9
.200-.249	17	100	N/A	N/A	N/A	0.0
.250+	13	84.6	N/A	N/A	N/A	15.4
Refused	26	96.2	N/A	N/A	N/A	3.8
Mortimer-Filkens						
0-11	69	82.9	N/A	N/A	N/A	7.2
12-15	34	91.2	N/A	N/A	N/A	8.8
16+	39	82.1	N/A	N/A	N/A	17.9

TABLE 30
CONTINUED

ITEM	N	NOT RE-ARRESTED %	RE-ARRESTED PRIOR TO TREATMENT %	RE-ARRESTED DURING TREATMENT %	RE-ARRESTED AFTER TREATMENT %	RE-ARRESTED DID NOT ENROLL COMPLETE %
Prior Arrests						
0	88	89.8	N/A	N/A	N/A	10.2
1	34	88.2	N/A	N/A	N/A	11.8
2+	21	85.7	N/A	N/A	N/A	14.3
Drinker Type						
Social	32	97.5	N/A	N/A	N/A	12.5
Incipient Problem	35	94.3	N/A	N/A	N/A	5.7
Problem	79	87.3	N/A	N/A	N/A	12.7
Arrest Charge						
DUI	134	89.6	N/A	N/A	N/A	10.4
DWAI	5	80.0	N/A	N/A	N/A	20.0
Others	7	85.7	N/A	N/A	N/A	14.3
Conviction Charge						
DUI	40	87.5	N/A	N/A	N/A	12.5
DWAI	104	90.4	N/A	N/A	N/A	9.6
Other	2	50.0	N/A	N/A	N/A	50.0

Table 26 presents the analysis for Level II Therapeutic Education clients. Two interactions were significant and one approached significance. Individuals on income assistance were more likely to become recidivists, particularly after treatment, than those not on income assistance (X^2 = 12.70, $\underline{df}$ = 4, p < .02). Interestingly, clients arrested for DWAI also had higher rates of recidivism than those charged with DUI or other offenses (X^2 = 15.54, $\underline{df}$ = 8, p < .05), although only ten subjects fit this category. The interaction that approached significance was observed on prior arrests where subjects with two or more priors had the highest rearrest rate and those with one prior the lowest rate (p < .10).

Although none of the interactions on Table 27, Level II Treatment participants, approached nor reached significance there were two findings of note. First, female clients had higher recidivism rates than males. Secondly, similar to the analyses with Level II Therapeutic Education participants, those with two or more priors had the higest rearrest rates followed by subjects with no priors. The lowest rates were found within the one prior group.

The Chi-Square analysis for Level II Treatment and Therapeutic Education participants is shown on Table 28. Only two interactions approached statistical significance: (1) the Mortimer-Filkins, where clients scoring 16 or more had the highest recidivism rate, especially after treatment completion; and, (2) prior arrests, where as in previous analyses, those with two or more priors had the highest rearrest rate followed by clients with no priors. The group with two or more arrests were most likely not to enroll or complete treatment as well. Although the Mortimer-Filkins did approach significance in terms of recidivism with this population, it should be noted that the overall rearrest rate varied only slightly according to this instrument (range = 86.4 - 88.4). Significance was approached thus due to the point in time when the rearrest occurred.

Table 29 illustrates the recidivism according to demographic and severity items for the group sentenced to participate but who failed to enroll. Due to the small size of this population (N = 106) caution should be exercised in the interpretation of rsults. For example, the recidivism figure in the interpretation of results. For example, the recidivism figure for females is an astounding 50% based upon the two females who failed to enroll in an intervention. Two Chi-Squares approached significance at p < .10: (1) income assistance, where none of the 14 clients on such, who also failed to enroll, were rearrested; and; (2) BAC, where generally higher levels of intoxication accompanied greater rearrest rates. The lowest recidivism figure on this variable occurred among those refusing the test. None of these 14 subjects were rearrested. Contrary to previous analyses for this group, cleints with one prior arrest had the lowest recidivism rate, and those with two or more the highest, followed very closely by those with no priors.

Figures for the 146 subjects not participating in an intervention, as they were not required to, are shown on Table 30. Only one interaction approached significance, blood alcohol concentration.

Interestingly, subjects not sentenced to education/treatment with low BAC levels (i.e., $<$ .149) had the highest recidivism figure of any category. This is consistent with the earlier finding that social drinkers who were non-participants had the highest recidivism rate (15.2%) of any drinker type. Similar to the above findings, those refusing the test had the lowest rate of re-arrest. Although not statistically significant, the sub-group within this population with high Mortimer-Filkins (i.e., 16+) scores had more than twice the recidivism rate of the other two Mortimer-Filkins categories.

To summarize this section, it was observed that there was a direct relationship between education/treatment intensity, as well as client severity, and recidivism. The more intense the intervention, where more severe clients were sentenced, the greater the recidivism. Participants in Level I Education, the least severe clients in the study, posted a 6% recidivism rate, followed by Level II Therapeutic Education participants at 7%. On the other hand, Level II Treatment and combined Treatment and Therapeutic Education participants, the most severe clients in the study, had 13.5% and 12.8% rates of recidivism, respectively. The highest rearrest rates, however, were found among subjects sentenced to education/treatment but failing to enroll (18%). Those not referred to any intervention fell between these extremes with an 11% rearrest rate.

The importance of treatment in accounting for subsequent recidivism was demonstrated in the discriminant function analysis. Not only did those clients who enrolled have the smallest rearrest rate (i.e., across all interventions 9.7% were recidivists compared to 11% for those not sentenced to education/treatment and 18% for those sentenced but failing to enroll), but termination status was the most powerful predictor of subsequent recidivism. It should be recognized, however, that clients who at least enroll in treatment, whether they complete it or not, are generally more motivated and cooperative and thus less likely to become recidivists. Completing treatment successfully would only strengthen the likelihood of their not becoming recidivists.

Other meaningful predictors of recidivism for participants included the severity items of blood alcohol concentration, Mortimer-Filkines, prior arrests and conviction charge, as well as marital status and whether or not the client was Black. Black clients, although requiring greater involvement by alcohol evaluators, had the lowest recidivist rates. Recidivism among subjects sentenced to but not participating in an intervention was best accounted for by the Mortimer-Filkins, conviction charge, income assistance, prior arrests and age. To predict recidivism among those not sentenced to education/treatment the most meaningful variables were education and sex, although drinker type also had a strong relationship to recidivism.

The Chi-Square analyses with individual interventions did not produce any significant interactions. However, a number of interesting findings were observed. First, clients with two or more prior arrests had much higher recidivism rates, regardless of the modality, than those with zero or one prior. Moreover, other than the subjects not sentenced to education/treatment, clients with one prior were the

least likely to become recidivists, even over those with no priors. Finally, while there was a tendency for high blood alcohol concentration to accompany higher rearrest rates, clients refusing to take the test were the lowest or among the lowest in recidivism on every cross tabulation .

SUMMARY AND CONCLUSION

The present study was intended to describe certain facits of education/ treatment intervention among drinking drivers. Based upon analyses performed the following observations were made:

1. Judges agreed with evaluators' recommendations concerning the education/treatment disposition of clients in 87% of all cases. The lowest correspondence occurred among clients not sentenced to any intervention, many of whom went to jail instead.

2. Clients differed both demographically and in severity according to the intervention to which they were sentenced. Referrals to Level I Education, followed by Level II Therapeutic Education, were the least severe while Level II Treatment and Therapeutic Education clients were the most severe, followed by non-referrals and Level II Therapy clients. Non-referrals were more likely to be sentenced to jail.

3. Demographic groups varied considerably in alcohol severity. The least severe clients were younger, female, Anglo, single or married, better educated and not on income assistance.

4. Clients did not always participate in the intervention to which they were sentenced. While it is understandable that some may choose to participate in more than required, the discrepancy in Level II Therapy. (19% correspondence between sentence and actual participation) was more difficult to explain. In all likelihood the problem was due to widespread confusion over the difference between Therapy and Therapeutic Education when the programs first began.

5. Overall, 84% of the clients sentenced to an intervention successfully completed it although nearly one-fourth were contacted by an evaluator concerning their compliance. Treatment success was inversely related to the intensity of the intervention and severity of the clients. Greater success rates were found in less demanding interventions where less severe clients were referred.

6. The most meaningful predictors of success in education/treatment were, in order of significance: (A) the Mortimer-Filkins - lower scores, greater success; (B) prior arrests - fewer priors, greater success; (C) indigence - non-indigent, greater success; (D) sex - female - greater success; and, (E) education - higher education, greater success.

7. Recidivism figures showed that 90% of this study's subjects were not rearrested for drinking driving during the two to three and a half years they were "at risk" (i.e., the time from the original arrest to the date recidivism figures were obtained). The lowest recidivism rates occurred in the interventions where less severe clients were sentenced (6% and 7%, respectively, for Level I and Level II Education referrals), while the highest occurred in the group sentenced to an intervention but failing to enroll (18%).

8. The most meaningful predictors of recidivism among participants were, in order of significance: (A) treatment termination status - successful termination, less recidivism; (B) BAC - lower concentrations, less recidivism; (C) the Mortimer-Filkins - lower scores, less recidivism; (D) whether the client was Black - if Black, less recidivism; (E) conviction charge - if DWAI, less recidivism; and (F) martial status - if single or married, less recidivism.

9. Among individuals sentenced to an intervention but failing to enroll the most significant predictors of recidivism were: (A) the Mortimer-Filkins - lower scores, less recidivism; (B) conviction charge - if DWAI, less recidivism; (C) income assistance - if not on income assistance, less recidivism; (D) prior arrests - fewer priors, less recidivism; and, (E) age - if younger, less recidivism.

10. For the group of subjects not sentenced to an intervention who did not, in fact, participate, there were two significant predictors of recidivism: (A) degree - more educated, less recidivism; and (B) sex - if female, less recidivism.

Based upon these findings the following recommendations are advanced:

1. All convicted DUI/DWAI clients should be referred to an education/ treatment intervention unless they have been through the system several times and are determined not likely to benefit from further similar interventions. In these instances clients should be sentenced to jail and/or an intensive outpatient (if employed) or inpatient (if unemployed) modality. This recommendation is based on the finding that referrals, who were generally more severe, had lower recidivism rates than non-referrals (i.e., 9.7% across all interventions versus 11%) especially if non-referrals were social drinkers (i.e., 15.2%).

2. Evaluators should pay particulary attention to those clients least likely to enroll in the intervention to which they were sentenced. Generally, these would be the more severe clients, based upon prior arrests, BAC, Mortimer-Filkins and conviction charge, but it would also include certain demographic subgroups. Tables 18- 21 describe the types of clients least likely to enroll/complete for each intervention. As may be recalled, the highest recidivism rate in the study was found within the population that failed to enroll (18%).

-75-

3. Evaluators should devote greater time and energy to those clients least likely to complete their intervention. This determination should be based on client severity as well as selected demographic variables described in the discriminant function analysis using two levels of termination status, successful and unsuccessful (Table 16). These are, in order of importance: (A) prior arrests (high); (B) Mortimer-Filkins (high); (C) sex (male); (D) degree (none); (E) indigent (yes); (F) Native American (yes); (G) BAC (high); (H) age (younger): (I) accident involvement (yes); (J) Hispanic (yes); and, (K) marital status (Divorced/widowed/separated). Tables 18-21 describe variables according to each intervention.

4. Evaluators should pay even greater attention to the population of clients with the greatest potential for recidivism. Turning to the discriminant function analyses, Table 24, determiants would include: (A) education/treatment termination status (failed); (B) BAC (high); (C) marital status (divorced/widowed/separated); (D) Black (no); (E) prior arrests (high); and (F) Mortimer-Filkins (high). Two additional points should be made relevant to the above. First, clients who fail to enroll or complete education and/or treatment are clearly at the greatest risk of becomming recidivists. Evaluators need to be notified immediately of non-compliance by the treatment agency to which the client was referred and develop contingency plans once notified. This may include incarceration and/or intensive outpatient or inpatient care. Secondly, as the analysis of termination status revealed, alcohol evaluators had greater involvement with Blacks than any other ethnic groups in terms of compliance with education/treatment. In light of the recidivism analysis, these efforts were rewarded and should be encouraged in the future.

5. The final recommendation which may be impossible to impliment needs to be stated anyway. That is, the average length of time between arrest and entrance into treatment is currently six months. Not only does this negatively impact early intervention, but many clients commit other acts of drinking and driving during this period. Changes either in judicial or referral patterns would appear to be necessary if we are to further the success of this program.

FINIS

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APPENDIX A

EVALUATIONS X DISTRICT

Evaluations 7/81-12/82

District	Total N	N Selected	% Selected
1	2,560	256	10
2	4,209	315	$7\frac{1}{2}$
3	290	58	20
4	3,260	326	10
5	673	100	15
6	611	122	20
7	740	111	15
8	2,550	255	10
9	927	139	15
10	625	125	20
11	500	100	20
12	640	128	20
13	535	107	20
14	695	139	20
15	126	63	50
16	316	79	25
17	2,390	239	10
18	3,293	247	$7\frac{1}{2}$
19	942	141	15
20	1,630	163	10
21	1,213	182	15
22	515	103	20
Total	29,213	3,498	12

APPENDIX B

TRAFFIC VIOLATIONS: RECODE CATEGORIES

TRAFFIC VIOLATION CODES RECODED

Original Code		Label	New Code
030-059		Registration	1
102-103		Animal/Ped. Intoxicated	1
350-369		Parking	1
400-419		Pedistrian	1
450-679	(450-469)	Obstructing	1
	(470-489)	Towing	1
	(490-509)	Spilling/Loads	1
	(510-539)	Oversize	1
	(540-609)	Equipment	1
	(610-669)	Lights	1
	(670-679)	Inspection	1
700-729		License	1
701-999		Unclassified	1
680-699		Auto Theft	2
003-005		Speeding	3
007-009		Speeding	3
142-349	(142-189)	Improper	3
	(190-219)	Passing	3
	(220-249)	Lane Usage	3
	(250-269)	Wrong Way	3
	(270-299)	Turns	3
	(300-349)	Traffic Controls	3
370-399		Right of Way	3
420-449	(420-429)	School	3
	(430-449)	Signaling	3
060-099		Drivers License	4
006		Speeding	5
141		Careless	5
001-002		Speed contest	6
010-012		Eluding	6
140		Reckless	6
100-101		DUI/DWAI	7
013		Eluding	8
120-139		Hit & Run	8
105-110		Homcide	9

Codes Not cited by DMV

14-29
104
111-119
730-897

APPENDIX C

ADDS QUESTIONNAIRE

Richard D. Lamm
Governor

Frank A. Traylor, M.D.
Executive Director

To: ADDS Program Administrators, Alcohol-Drug
        Evaluation Specialists

From: Robert Aukerman
        Director, Division of Alcohol and Drug Abuse

Date: December 8, 1984

Subject: Outcome Data

I would like to have your cooperation in a one-time effort aimed at ob-
taining outcome data on some of the clients you have seen in the past.
This will be a one-time task since we are in the process of developing
an evaluation strategy that in the future will meet this same end.

For the present, however, we are simply unable to evaluate programs
without your assistance. Therefore, I am asking that you provide us
with the answers to five questions on the enclosed list of randomly
selected clients.

The questions are:

1. Education/Treatment Client Participation

    This is defined as the Education/Treatment the client actually
    participated in, if any.

2. Education/Treatment Termination Status

    This item is defined according to the client's termination
    from Education/Treatment status, if they participated, whether
    successful or unsuccessful.

3. Antabuse and/or AA

    Includes whether the client took antabuse and/or participated
    in Alcoholics Anonymous.

4. Degree of Intervention Required

    With this item we are attempting to determine the amount of
    intervention required with each individual client, from none
    required to a probation or court supervision revocation hearing.

5. Education/Treatment Indigency

    This element is defined as whether or not the client was declared
    indigent as far as Education/Treatment was concerned.

For simplicity, I have devised a coding guide for these questions which is attached. Please record the answers directly onto the computer-generated list of subjects, under the appropriate question. If, for some reason you are unable to locate the file on a particular client, or if any of the requested information is unavailable, simply leave that item blank.

This same list of subjects has also been sent to Motor Vehicles. With your assistance, I hope to be able to provide you with information as to the efficacy of treatment, correlations and predictors of success, profiles of clients most likely to recidivise, etc. Your cooperation is greatly needed.

Due to the need to have these data for the upcoming Budget hearing I would like to have them returned by November 21, 1983. I know this is not a great deal of time and you are already very busy. The questions are brief, however, and should be fairly easy to answer. If you can return the forms sooner than the 21st, that would be even better.

If you have any further questions, please contact Bob Booth at 320-6137, extension 368.

BB/mn

cc: Robert Booth, Ph.D.
       Harold M. Meadows

THE ONE-TIME EFFORT
CODING GUIDE

Item	Code
1. Education/Treatment Client (Actual) Participation	1 = Level I Education 2 = Level II Therapeutic Education 3 = Level II Treatment 4 = Level II Treatment/Education 5 = None, But Required 6 = Not Required 7 = courtesy evaluation
2. Education/Treatment Termination Status	1 = Completely satisfactory, no intervention 2 = Completed, but one intervention required 3 = Completed, but two interventions required 4 = Completed, but three interventions required 5 = Enrolled, but did not complete 6 = Did not enroll 7 = Not required to enroll 8 = Enrolled, but moved elsewhere
3. Antabuse and/or A.A.	1 = Antabuse 2 = A.A. 3 = Both Antabuse and A.A. 4 = Neither Antabuse nor A.A.
4. Degree of Intervention Required	1 = None 2 = Phone and/or written contact 3 = Appearance before ADES/PO 4 = Court appearance 5 = Probation or court supervision revoked
5. Education/Treatment Indigency	1 = Yes 2 = No

Please Note: If you are unable to provide an answer for any item, just leave it blank. Please attempt, however, to provide complete information.