

REDUCING DWI RECIDIVISM IN  
NORTH CAROLINA: AN EVALUATION  
OF ALCOHOL DRUG EDUCATION  
TRAFFIC SCHOOLS

Carol L. Popkin  
John H. Lacey  
Patricia F. Waller  
Linda Rudisill  
J. Richard Stewart

University of North Carolina  
Highway Safety Research Center  
Chapel Hill, NC 27599-3430

December 1985

This evaluation was funded by the North Carolina Department of Human Resources. The opinions and findings contained in this report are solely those of the authors and not necessarily those of the project sponsor.

## ACKNOWLEDGEMENTS

The authors wish to acknowledge the valuable assistance provided by many persons in accomplishing this project.

We are particularly grateful to Mr. Pete Martin of the Department of Human Resources, Ms. Dorothy Ellis of the Division of Motor Vehicles who kindly offered advice to HSRC's programmers, and to Mr. Eric Rodgman who provided tabulations of the data.

Much thanks must also be given to Ms. Teresa Parks and Ms. Peggy James who were responsible for the arduous task of preparing this text.



TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY . . . . .	iii
I. Introduction . . . . .	1
I.A. Findings of the Initial Evaluation . . . . .	1
I.B. Status of ADETS Under the SRA . . . . .	2
I.C. Background . . . . .	3
I.D. Current Evaluation . . . . .	4
II. Follow-up Analysis of Recidivism . . . . .	5
II.A. Initial Evaluation Results . . . . .	5
II.B. Current Evaluation . . . . .	6
Method . . . . .	6
II.C. Analysis of Recidivism Measures . . . . .	10
II.D. Discussion . . . . .	12
III. Review of Recent Evaluations of Other ADETS Type Programs . . . . .	26
IV. Development of a Demographic Profile of Recidivists . . . . .	28
V. Statewide Assignment to ADETS . . . . .	32
VI. Review Current Curriculum . . . . .	37
VII. Review of Current ADETS Knowledge Test . . . . .	48
VIII. Feasibility Study of Pre-Assignment ADETS Attendance . . . . .	51
IX. Mail Survey of Recent ADETS Graduates . . . . .	53
IX.A. Survey Procedures . . . . .	53
IX.B. Questionnaire Design . . . . .	54
IX.C. Questionnaire Results . . . . .	54
REFERENCES . . . . .	62
APPENDICES	
APPENDIX A: Letter sent to Recent ADETS Graduates	
APPENDIX B: Comments of Recent Graduates of the ADETS Program	



Reducing DWI Recidivism in North Carolina:  
An Evaluation of Alcohol Drug Education Traffic Schools  
conducted by the  
UNC Highway Safety Research Center

EXECUTIVE SUMMARY

North Carolina's Alcohol Drug Education Traffic Schools (ADETS), a relatively new program, became effective January 1, 1980. It came into existence as a result of Senate Bill 691 (1979), which mandated a statewide ADETS program for first-time convictees of Driving Under the Influence (DUI).

The Safe Roads Act (SRA) of 1983 did away with the provisions which made attendance at ADETS a prerequisite for receiving a limited driving privilege (LDP) and which also permitted those completing ADETS to receive full reinstatement of driving privileges after six months. Under the SRA, any defendant convicted of Driving While Impaired (DWI) and placed on probation must be required to attend ADETS unless he/she has previously completed it or unless the judge states a reason in the record of the case for excusing him/her. This means that most first offenders and some second offenders must be required to attend the school. The law provides that ADETS attendance has no effect on the person's LDP and successful completion does not accelerate the return of his/her license. However, failure to attend in effect invalidates any LDP an individual may have and implements a one year licence revocation imposed by the Division of Motor Vehicles (DMV).

This report covers the second phase of an evaluation of North Carolina Alcohol and Drug Education Traffic Schools (ADETS) conducted by the University of North Carolina Highway Safety Research Center. A major finding of the first study (Popkin (et al., 1982)) was that ADETS attendees had a higher DUI recidivism rate than non-attendees. This difference between the two groups was

attributed to different licensing sanctions, i.e., ADETS attendees did not have license suspensions.

The recidivism analyses reported upon in this paper are on the pre Safe Roads Act group identified in the original study. These analyses enable us to examine recidivism rates of the original group for a longer period of time.

A new recidivism study of those persons sentenced to ADETS after the passage of the Safe Roads Act was begun during this study period, but a sufficient amount of time to allow for the groups to recidivate had not elapsed by the end of this reporting period. The analyses of recidivism among this post SRA group will begin in the 1985-86 reporting period.

The scope of activities reported here includes a review of other recent ADETS-type evaluations; a follow-up analysis of groups identified in the original study, the identification of an ADETS/post-Safe Roads Act study group; a demographic profile of ADETS recidivists; tables that indicate use of ADETS by the courts in each county; a review of the current knowledge test in conjunction with a review of the curriculum; an examination of the feasibility of comparing recidivism rates of persons who voluntarily attend ADETS prior to conviction as opposed to those sentenced to ADETS as part of their sanction; and finally, a mail survey of 500 recent graduates of the ADETS program.

#### Review of Other ADETS-Type Evaluations

During this project period, HSRC has continued to monitor evaluations conducted on ADETS-type programs. Evaluations of the Sacramento, California, Florida and Mississippi ADETS-type programs were reviewed.

These evaluations suggest that many of the problems found in earlier studies, such as design problems or non-positive effects of DWI schools have continued to appear. Most of these studies have indicated that attendance at a



school such as ADETS does not have a positive outcome for attendees when school attendance is given in lieu of other sanctions.

#### Follow-Up Analysis of Recidivism

In our initial evaluation, conducted under the old law, we found that, regardless of the time comparison made or recidivism measure examined, persons completing ADETS in the study period were more likely to recidivate than those who did not attend.

For the present report, we extended the follow-up period for the original study group to the end of 1984 and examined the two groups. Findings were similar to those reported upon in our earlier evaluation, i.e., the groups continued to differ in their recidivism rates, with the group attending ADETS doing more poorly. Thus, it appears that license suspension may have a more lasting deterrent effect than ADET school attendance.

#### Identification of a Post Safe Roads Study Group

Since attendance at ADETS under the SRA does not increase the likelihood of receiving a LDP or hasten license reinstatement, it was of particular interest to follow those persons arrested and convicted of DWI and assigned to attend the schools after the new law became effective. This will provide a study group of persons assigned to ADETS who also receive licensing sanctions, thereby providing the opportunity to look for any deterrent effect the program itself may have. The law now requires that judges state their reason(s) in writing for not assigning persons to ADETS. Examining this information, as well as such variables as representation by counsel, will enable us to control for some previously unrecorded differences between ADETS attendees and non-attendees.

### Development of a Demographic Profile of Recidivists

A demographic profile of the ADETS attendee who commits a second (or more) DWI may enable ADETS classroom instructors to identify high risk students. Our analyses indicated that the recidivist was more likely to be young, male, unmarried, unemployed and to have a high BAC level at the time of arrest. However, the differences between high and low risk groups were not great.

### Statewide Assignment to ADETS

In order to ascertain if persons 'eligible' for ADETS attendance are being assigned to the program by the courts, a table indicating the percentage of those eligible for assignment by county of arrest, is presented for the years 1980 through 1984. The table shows that assignment of persons has declined statewide from a high of 72 percent in 1981 to a low of 65 percent in 1983 and 1984. This information is of use to both state level and local ADETS personnel as an indicator of where increased court liaison activities may be beneficial.

### Review Current Curriculum

The ADETS curriculum attempts to address many facets of drinking and driving in a limited number of hours. Moreover, the ADETS attendees vary greatly in their abilities, backgrounds and even in their degree of motivation. Given these constraints, several modifications are suggested for consideration.

Among suggested modifications are:

1. Include a copy of the North Carolina insurance point schedule. Several persons responding to our survey stated that the time and unexpected costs associated with being convicted of DWI had an impact on them.
2. Provide instructors with specific examples of methods to deal with hostility on the part of students.
3. Make homework assignments that are actual assignments.
4. Shorten or delete the module which deals with drugs other than alcohol.

5. Use language at a level understandable to all students.
6. Modify current knowledge test. (This will be addressed more extensively in the next section.)

#### Review of Current ADETS Knowledge Test

A knowledge test is currently administered to ADETS attendees at the beginning and end of the course. An evaluation of the test indicates that most test items could be improved. Many items are too easy or too difficult and a significant portion of the test is composed of true-false items. Suggestions for changes are included in this report.

#### Mail Survey of Recent ADETS Graduates

A mail survey of 500 recent graduates of the ADETS program was conducted. A total of 161 students responded. Overall, the results of the survey are positive with most respondents stating that they no longer drive after drinking.

#### Conclusions and Recommendations

The ADETS program has the ambitious goal of changing DUI offenders' drinking driving behavior by increasing their knowledge and awareness of the effects of alcohol on driving during a 10-13 hour course. It is intended that these knowledge changes will result in attitudinal and behavioral changes. This is a difficult challenge when one considers the many societal influences encouraging and even glamorizing alcohol consumption.

However, the ADETS program represents a 'positive' sanction for those convicted of first-time DUI/DWI in that it is an attempt to provide offenders with useful information with which they may be better able to deal with their potential to drink and drive again. Thus, the ADETS program may best be viewed within the context of the total set of sanctions applied to DWI offenders rather than as a stand alone measure. Analyses conducted in the next project year will follow that orientation.

Based on the information obtained in both this and the earlier evaluation, ADETS appears to be well-coordinated at the State level. Approximately 29,000 persons were assigned to ADETS in 1984. Local programs, however, do vary considerably due to the fact that their administration is somewhat autonomous. Each program is provided the model curriculum but may alter it somewhat to suit local conditions.

In 1984 the first full calendar under the Safe Roads Act, approximately 65 percent of those eligible were assigned to ADETS. (In the next year, a comparison study will query judges as to why some persons are not referred to ADETS.) Students responding to our survey indicated a reasonable level of satisfaction with the course. In fact, students showed about a twenty percent knowledge gain in our earlier evaluation.

However, in our earlier study, this increase in knowledge did not appear to be related to positive behavioral responses, for when we examined three recidivism measures -- DWI reconviction, careless and reckless after drinking reconvictions and crashes -- we found that those attending ADETS fared worse for every time frame examined. After four years, these differences still hold.

The enabling legislation did not permit random assignment of subjects to ADETS school or no school. Although we adjusted for differences on variables both related to DWI recidivism and on which the ADETS group and the comparison group differed, we were limited to information available on the driver history file. A further difference that we know existed between the groups was that of license suspension, which was usually given to non-school attendees and almost never to ADETS students. Thus, we hypothesized that the higher recidivism found in the school group was likely attributable to the lack of license suspension (a known effective deterrent) rather than a negative effect due to the schools.

The Safe Roads Act has provided a better opportunity to evaluate ADETS. ADETS no longer has licensing benefits for its graduates. In addition, more detailed information about court proceedings is now included on the record; e.g.; representation by counsel, whether counsel was appointed or not, and more detailed information about other sanctions applied. Recidivism analyses can be initiated in the next project year on persons convicted under the SRA using this more elaborate data base. These analyses can control for any additional differences between the two groups and may shed more definitive light on the true effectiveness of ADETS.



## I. Introduction

This report is a continuation of an on-going evaluation of North Carolina's Alcohol Drug Education Traffic Schools (ADETS) conducted by the University of North Carolina's Highway Safety Research Center. The original evaluation was entitled "An Initial Evaluation of the North Carolina Alcohol Drug Education Traffic Schools."

### I.A. Findings of the Initial Evaluation

In this evaluation those persons who were eligible to attend the schools were divided into two groups -- those who attended ADETS and those who did not. Analysis of the driving records of first-time offenders attending the schools, when compared with the driving records of similar offenders who did not attend the school, showed that driving records of school participants were worse than those of the comparison group. Because there were some differences between the two groups that might bias results, comparisons were made after controlling for three characteristics of the two groups that were significantly different -- namely age, race and BAC at the initial DUI arrest. The additional characteristics of geographical area of the state, sex and proportion convicted of careless and reckless driving after drinking were considered but not found to be significantly different and, therefore, were not controlled for. Another finding of the evaluation was that those persons attending the schools had substantial knowledge gains. However, no attempt was made to compare the driving records of those persons registering significant gains on the knowledge test with those not registering such gains.

Three different series of comparisons were made, each using different time frames. All three had the same finding, i.e., those persons who attended ADETS were more likely to recidivate. The most plausible explanation of this is that the non-ADETS group received more severe license sanctions than the ADETS group

and that the deterrent effect of these sanctions on DUI recidivism was much greater than any that the school may have had.

I.B. The Status of ADETS Under the Safe Roads Act

In 1983 the NC Legislature passed a thorough revision of North Carolina's laws dealing with drinking and driving. This revision, called the Safe Roads Act of 1983 (SRA) largely took effect on October 1, 1983.

Under the SRA Alcohol and Drug Education Traffic Schools (ADETS) continue to be used as a sanction against those persons convicted of first time DWI and for those persons whom the courts believe will benefit from the school. Any person found guilty of DWI and placed on probation, i.e., levels three, four and five (and for some others) is required to attend ADETS unless they have previously completed the course. In some instances a judge may elect not to sentence a person to ADETS. For example, he may feel that school attendance would place an untoward burden on a new mother who was recently divorced and who would have difficulty finding someone to help care for her baby. However, in such cases the judge must state in the written record of the case the reason for excusing the person from attendance. The initial evaluation of ADETS concluded that the ADETS program may have been unsuccessful because ADETS was being given in lieu of other sanctions, specifically license revocation. In order to correct this problem the Safe Roads Act (SRA) states that: "Attendance in no way is to effect the person's limited driving privilege and completion of the course does not shorten the length of license suspension." Thus, attendance at ADETS under the Safe Roads Act is not given in lieu of other sanctions but rather in addition to them.

Failure to satisfactorily complete the school (failure to attend the requisite number of sessions or appearing at school while under the influence of



alcohol or drugs) has negative consequences, for in these instances, DMV must revoke the license for one year. Although the statute does not require the school to notify The Division of Motor Vehicles (DMV) of an individual's failure to complete the school within ninety days of assignment, when the school does send notice to DMV, it has no discretion but to revoke the individual's license for one year. Furthermore, the court may revoke the person's license if probationary terms that assigned him to the school are not satisfied.

The fee for school attendance is \$100, unless the person is assigned to both the school and to community service. In these cases the fee is reduced to \$50 for ADETS and \$50 for community service. The present study did not address the issue of the financial burden which this may place on ADETS programs.

#### I.C. Background

During the 1960's and 1970's, alcohol safety schools were begun in response to the growing recognition that alcohol was a major contributing factor to traffic fatalities and to traffic crashes in general, particularly those occurring at night. In most cases it was hoped that a short-term course might have an impact on people's drinking or driving habits that would result in less drinking and driving on their part. During this time the federal government became involved in such programs and subsidized 22 Alcohol Safety Action Projects (ASAP's) nationwide. Measuring program effectiveness was an important component of these programs, and evaluation studies evolved to identify features of individual programs that were associated with positive program outcomes, i.e., reduced recidivism, gains in knowledge about alcohol. Many evaluation studies were reported. Most had methodologic difficulties in the assignment of subjects to study and comparison groups since randomization of subjects was seldom available; other problems concerned differential sanctions applied, with

those attending the school often receiving reduced sanctions. While many programs were able to detect significant changes in knowledge gains, few were able to detect changes in lifestyle, particularly changes in drinking-driver behavior.

#### I.D. The Current Evaluation

Sponsored by the Statewide ADETS program, the current evaluation was conducted by HSRC. It has nine components. Briefly they are:

1. A review of recent evaluations done of other ADETS type programs.
2. A follow-up of recidivism analyses of the groups identified in the earlier study.
3. Identification of an ADETS Post Safe Roads Act Study group.
4. Development of a profile of the ADETS recidivist.
5. Review of the current model curriculum with suggested revisions.
6. Development of tables showing percentage of eligible ADETS attendees who are actually assigned to ADETS by county.
7. Review of the current knowledge test with suggested revisions.
8. Examination of the feasibility of comparing recidivism rates of persons voluntarily attending ADETS prior to conviction with those sentenced to ADETS as a part of their sanction.
9. Conduct of a mail survey of a sample of 500 recent graduates of the ADETS program.

## II. Follow-Up Analysis of Recidivism

This section contains a discussion of an examination of long term recidivism measures for the two groups identified in the earlier study.

The ideal experimental model for an ADETS-type program would include random assignment of study subjects to the ADETS program or a comparison group, followed by comparison of the two groups' driving experience over time. However, the decision to assign first-time DUI/DWI convictees to ADETS is dependent upon the discretion of the courts and is thus not random. Consequently, a quasi-experimental design was employed in this study.

Before passage of the Safe Roads Act, persons just convicted of the DUI offense generally were sanctioned by the courts with fines, court costs and attendance at ADETS. A license sanction of a one-year suspension was imposed by the DMV upon notification of conviction. This could be mitigated by the judge with a limited driving privilege for first offenders. Generally, those who were to attend ADETS received such privileges and those who were not sent to ADETS did not. Successfully completing ADETS resulted in restoration of full driving privileges by DMV six months after conviction. Thus, persons completing ADETS were less likely than persons not attending to receive more severe sanctions. Those who did not attend the schools were less likely to receive a limited driving privilege and were not able to regain full driving privileges until an entire year after conviction.

Thus, the two groups had differential driving exposure, i.e., those completing school (the study group) had a greater opportunity to drive and consequently a greater potential to DUI arrest, etc.

### II.A Initial Evaluation Results

Because of the possible exposure differential between the two groups, the initial study compared three sets of recidivism measures between the two groups

using three different time frames. Three recidivism measures, DUI convictions, careless and reckless, and accidents, were examined at each time interval. The time intervals utilized are depicted in Figure 2.1. Since the average length of time for completion of ADETS was 45 days, one series of time intervals had as its starting date the completion of the study group subjects and 46 days after the DUI conviction date for the comparison group.

A second series of comparisons were made beginning in the third quarter following completion of ADETS for the study group and with the fifth quarter for the comparison group, this time interval representing a period beginning when both groups would have just regained full driving privileges.

A third series of comparisons was made starting one year after completion of ADETS for study group subjects and one year plus 46 days after the conviction date for comparison group subjects. At this time, individuals in both groups should again have full driving privileges and be removed the same amount of time from the court experience.

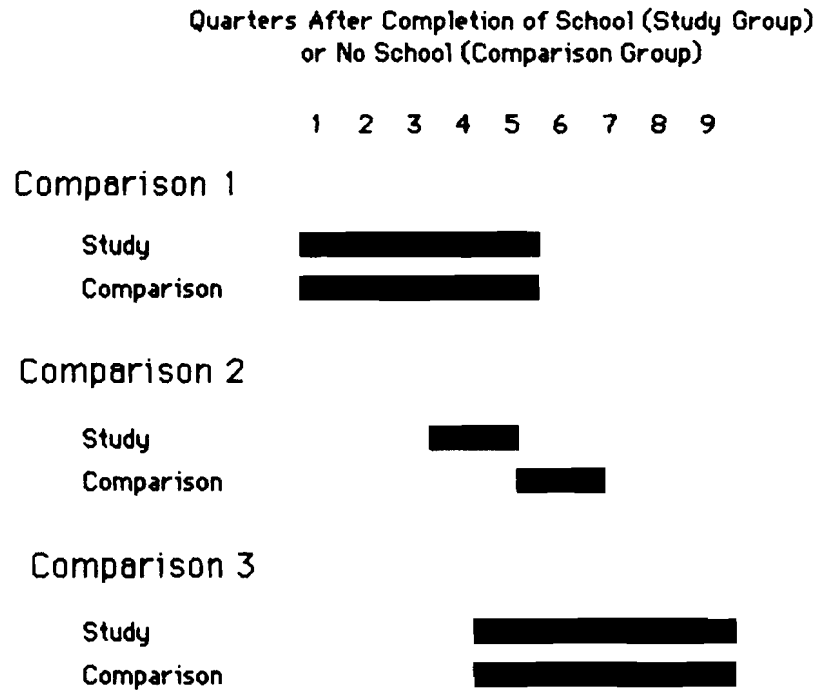
In the initial evaluation, for all outcome measures studied, the group attending ADETS fared worse. The results were highly statistically significant.

## II.B Current Evaluation

### Method

The analyses which follow are a follow-up of the groups identified in the earlier study. These groups were not directly affected by the SRA in that the conviction which made them eligible for inclusion in our study took place prior to the passage of the law. Indirectly, though, the SRA and any deterrent effects it may have had an equal potential for influencing both the study and comparison groups.

Figure 2.1  
Time Frames of Major Comparisons Made in ADETS  
Evaluation



The time frames which we employed in this analysis were the same as Time Frames 2 and 3 in our earlier study except they have been extended to 18 quarters after conviction.

As mentioned earlier, because of the potential difference in exposure between the study group and comparison group, two different sets of comparisons were made. The first set of comparisons (Time Series 1) examined the experience of both groups beginning twelve months after the start date -- a point in time when both groups would have full driving privileges and would have had the same period of time since conviction. The second comparison (Time Series 2) involved comparing the experience of the school group beginning six months after the start date with that of the comparison group beginning twelve months after the start date, being the point in time when both groups would first have full driving privileges restored.

The comparisons were made between the experience of 1980 and 1981 first offender DUI or careless and reckless after drinking convictees. First offenders were those who had no alcohol-related offenses on their record for the period seven years prior to their arrest for the current offense.

To identify persons eligible for the study a copy of the North Carolina Driver History File as of December 31, 1984 was obtained from the N.C. Transportation Computing Center. This file contained 5,379,470 records of which 542,769 had an indication of an alcohol-related event, or medical review. The 542,769 records broke down as follows:

43,647	were out of state drivers
4,183	were deceased
216,650	had no alcohol related event or ADETS indicator from 1980 to 1985
4,013	had unusable computer records or were not eligible for study
322,016	had an alcohol-related entry since 1980

The 322,016 records were retained for further study.

119,601 had entries in 1980/1981

64,594 were first offenders in 1980 or 1981 by the  
criteria stated above

55,007 were either multiple offenders or were not  
convicted of C & R after drinking or an  
alcohol conviction

of the 64,594 first offenders in 1980 and 1981

38,228 were referred to ADETS and completed ADETS on  
their first attempt

17,057 were not referred to ADETS

9,068 were not convicted of DUI or C/R after drinking  
in 1980 or 1981 or did not complete ADETS on  
their first attempt

241 had no RATERS or a bad arrest date in RATER

The actual study and comparison group for the analyses reported later  
number 38,228 in the study (ADETS) group and 17,057 in the comparison group.  
These numbers differ from those of the earlier study because many cases not  
available due to the time lag in form processing were now eligible for inclusion  
in our study.

The primary analysis focused on the experience of the 38,228 first  
offenders who completed ADETS as compared with that of the 17,057 who were not  
referred to ADETS. Cumulative biannual recidivism rates on each of the outcome  
measures were computed for each group and compared using the techniques  
described in the analysis section. Since persons convicted throughout 1980 and  
1981 were included in the study and the cutoff date for outcome data was  
December 1984 the length of follow-up period varies with individual. All  
individuals included in the study had at least 12 full calendar quarters  
follow-up and some individuals had as many as twenty with the numbers decreasing  
as the follow-up period becomes longer. Table 2.1 below shows the number of  
individual records available for analysis for each quarterly follow-up time  
frame.

Table 2.1 Number of records available for analysis by number of calendar quarters of follow-up.

	Calendar Quarters of Follow-up Time								
	12	13	14	15	16	17	18	19	20
School Group	38228	34278	28921	23001	17388	12291	7421	2862	50
Comparison Group	17057	15313	12836	10823	8247	5871	3420	1148	161

### II.C. Analysis of Recidivism Measures

Following the assignment of admissible subjects to either the study or comparison groups, their subsequent driving records were examined to compare rates of recidivism (DUI convictions, careless and reckless convictions, and accidents) between the two groups. For example, one year following completion of ADETS 4.22% of the 38,228 study group subjects were convicted of DUI/DWI. In the same time period (beginning a year and 46 days after their initial conviction, 2.56% of 17,057 subjects of the comparison group had convictions for those offenses.

Comparing raw recidivism rates can be misleading, however, if the composition of the groups differ with respect to certain characteristics which, in turn, are associated with differing recidivism rates (see, e.g., Fuchs, 1979). Distributions of the characteristics age, race and BAC at the initial DUI arrest were significantly different for the two groups. Each of these three characteristics is also significantly associated with DUI conviction rates. Biased estimates of recidivism rates could, therefore, be obtained unless these factors were taken into account. Other factors considered but found not to be significantly associated with differences in outcome measures between the two groups were geographical area of the state, sex and proportion convicted of careless and reckless driving after drinking.



The analysis of DUI recidivism was carried out by partitioning each of the two groups into forty mutually exclusive subpopulations defined by combinations of the levels of subject age, race, and initial BAC. Combined with group this gave a total of 80 subpopulations, and within each subpopulation subjects were classified by whether or not they had a subsequent DUI/DWI conviction in some specified time interval.

A mathematical model was then fit to the percentage of subjects in each subpopulation having a subsequent DUI conviction. The model is of the form

$$\hat{P} = X\beta$$

where  $\hat{P}$  is the vector of DUI conviction percentage (recidivism rates),  $X$  is a design matrix containing effects for group, age, race, initial BAC, and certain interactions, and  $\beta$  is a vector of model coefficients. The primary purpose of the modelling is to provide smoothed estimates of the recidivism rates within the subpopulations. That is, the estimated or predicted recidivism rates for a given subpopulation is based, through the model, on information in many subpopulations, as opposed to the raw rate based on information from the given subpopulation alone.

The next step in the analysis is to obtain overall group rates as weighted combinations of the predicted subpopulation rates. The weights are determined to yield overall group rates that would have been obtained had the distributions of age, race, and initial BAC been the same within the two groups. Thus, any differences that remain between these overall group rates cannot be attributed to differences in the distributions of age, race, and initial BAC. The modelling procedure, GENCAT, also produces statistical tests of significance for group differences.

This same type of analysis was repeated for each of the three recidivism measures -- DUI convictions, careless and reckless convictions, and accidents -- for two different time intervals.

The first series of comparisons was made with a starting date of one year after the completion of ADETS for study group subjects, and one year plus 46 days after the initial DUI conviction for the comparison group subjects. At these time points all subjects should again have full driving privileges. Three sets of analyses were done using these starting points and cumulatively covering time intervals of 6 months through 42 months. The results of these analyses (depicted quarterly) are contained in Tables 2.2 - 2.4 and Figures 2.2 - 2.4. The second series (Time Series 2) of comparisons were made beginning with the third quarter following completion of ADETS for study group subjects and with the fifth quarter for the other subjects. This period represents an interval when most subjects first regain full driving privileges. A comparison of total moving violation rates was also made over the first year following completion of ADETS. The results of these analyses are contained in Table 2.5 - 2.7 and are shown in Figures 2.5 - 2.7. In every case the recidivism rate for the study group exceeds that of the comparison group, and the differences are all highly statistically significant.

#### II.D. Discussion

The salient finding of the recidivism analysis is that for every measure taken and for every time frame examined the study group (those attending the schools) fared worse than the comparison group. These differences remained even after adjusting for differences between the groups on measures found to be related to recidivism. These variables were age, race and BAC at time of arrest. As mentioned above, a more ideal experimental design for conducting the impact evaluation of the schools would have been to randomly assign first offenders to attend or not to attend the schools and then to monitor their DWI conviction and crash experience. Of course, that approach was not feasible since, by statute, the schools were to be made available statewide. This means

**Table 2.2 Cumulative DUI/DWI Conviction Rates  
by Group. Time Series 1**

<b>Length of Time in Months from Starting Point*</b>	<b>Study Group</b>	<b>Comp. Group</b>	<b>Diff.</b>	<b><math>\chi^2</math></b>	<b>p</b>
6	4.22	2.56	1.66	99.8	0.000
12	7.99	4.81	3.18	201.4	0.000
18	11.13	6.80	4.33	273.2	0.000
24	13.53	8.24	5.29	345.9	0.000
30	15.79	9.65	6.14	307.7	0.000
36	18.58	12.13	6.45	179.9	0.000
42	20.94	16.68	4.26	27.06	0.000

\* Starting point for the Study Group is one year after the completion of ADETS and for the Comparison Group, one year plus 46 days.

**Table 2.3. Cumulative Careless and Reckless Rates. Time Series I**

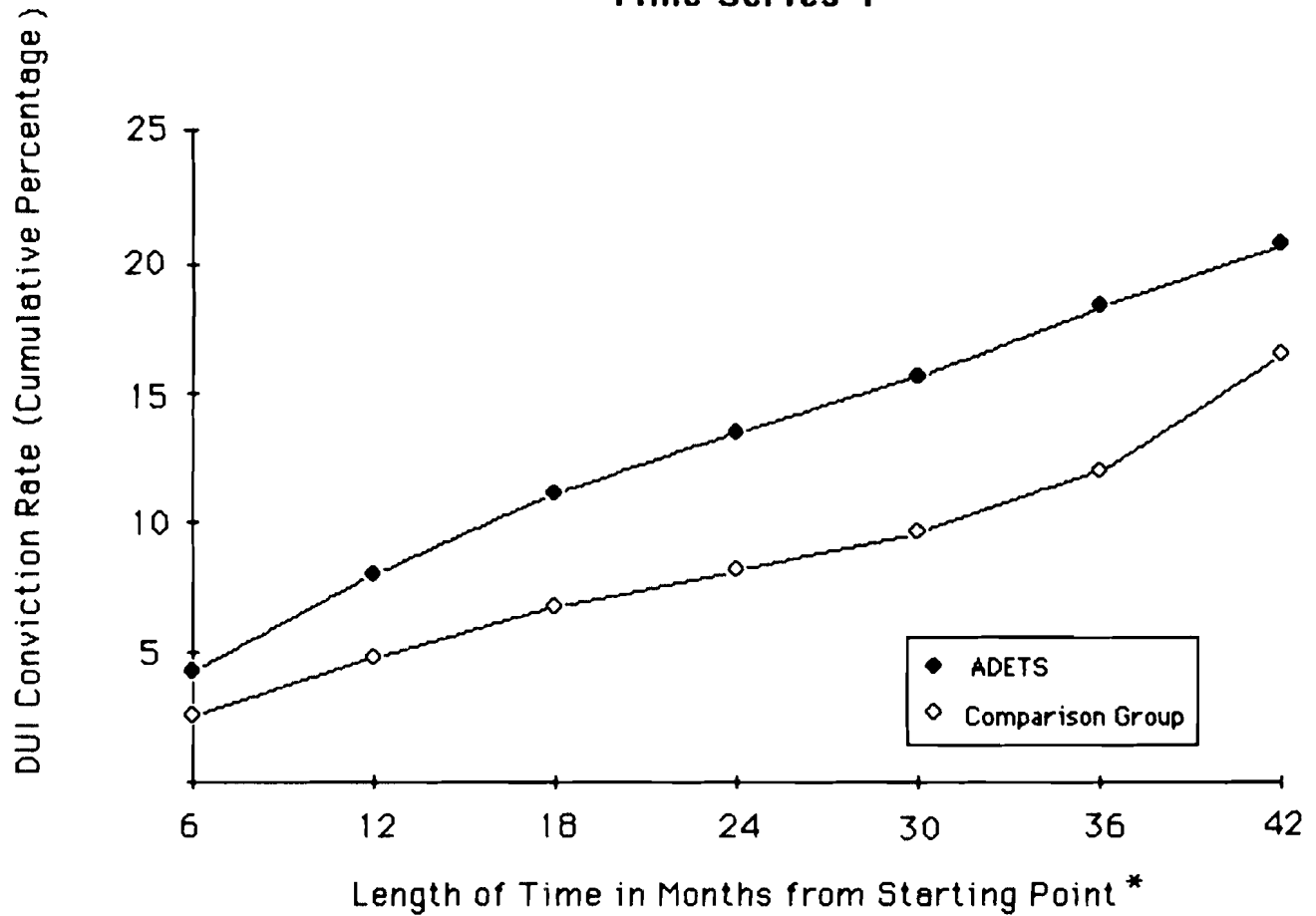
<b>Length of Time in Months from Starting Point*</b>	<b>Study Group</b>	<b>Comp. Group</b>	<b>Diff.</b>	<b>x<sup>2</sup></b>	<b>p</b>
6	1.33	.98	.3433	12.05	.001
12	2.27	1.75	.516	15.70	.000
18	3.03	2.38	.650	18.83	.000
24	3.64	2.93	.707	18.56	.000
30	4.25	3.44	.807	15.73	.000
36	5.13	4.22	.903	10.12	.002
42	6.24	5.61	.627	1.64	.205

**Table 2.4. Cumulative Accident Rates by Group. Time Series I**

<b>Length of Time in Months from Starting Point*</b>	<b>Study Group</b>	<b>Comp. Group</b>	<b>Diff.</b>	<b>x<sup>2</sup></b>	<b>p</b>
6	4.31	2.42	1.89	138.56	.000
12	7.66	4.73	2.933	180.81	.000
18	10.66	6.52	4.14	269.82	.000
24	13.25	8.07	5.18	348.58	.000
30	15.71	9.96	5.75	273.46	.000
36	18.01	12.00	6.01	162.13	.000
42	19.83	14.79	5.04	41.56	.000

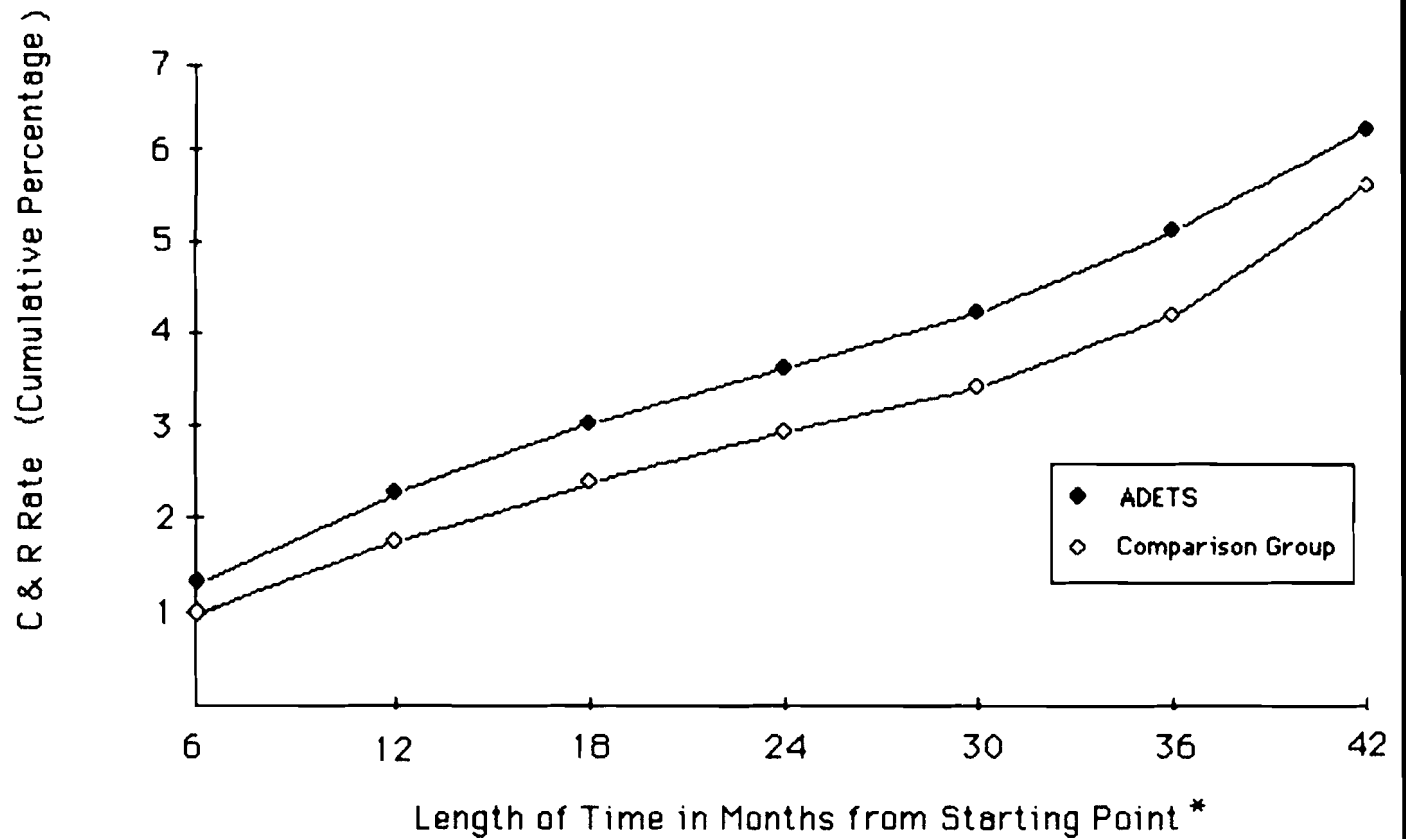
\* Starting point for the Study Group is one year after the completion of ADETS and for the Comparison Group, one year plus 46 days.

**Figure 2.2 Cumulative DUI Conviction Rates by Group  
Time Series 1**



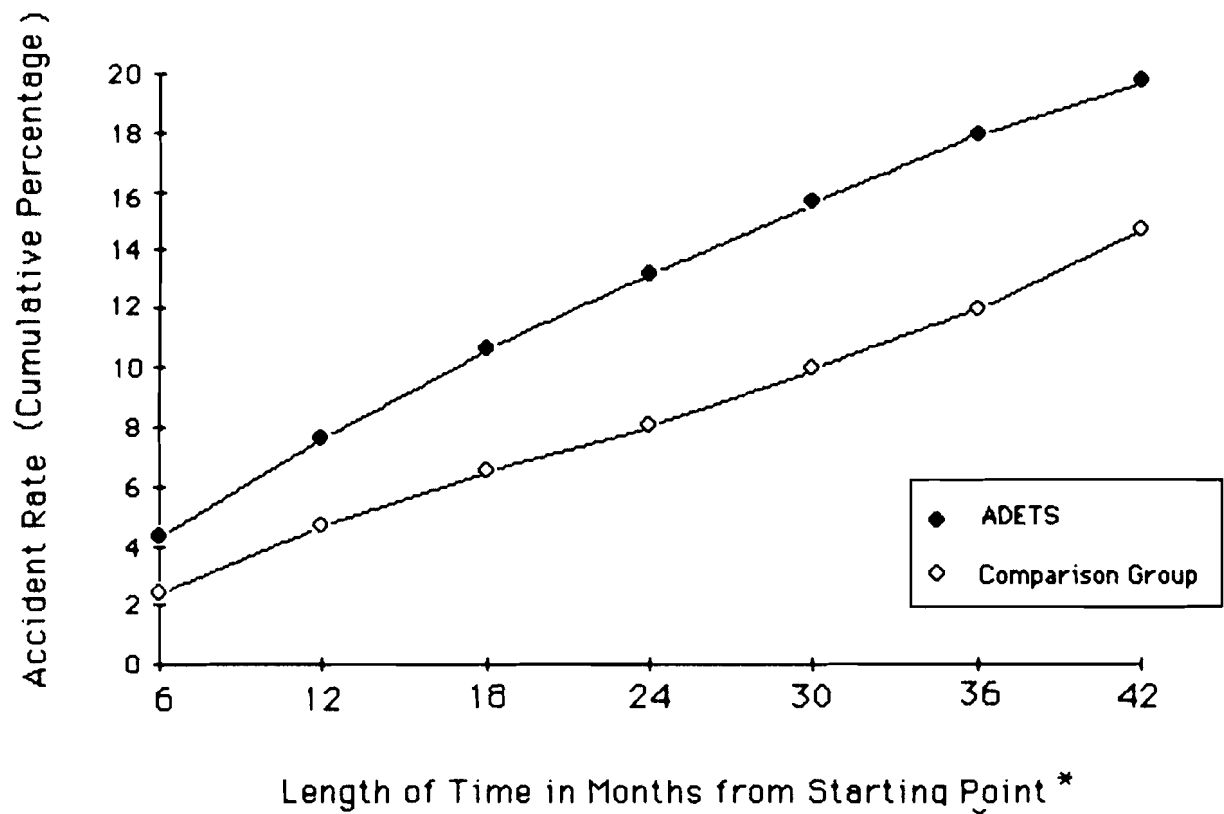
\* Starting point for the Study Group is one year after the completion of ADETS and for the Comparison Group, one year plus 46 days.

**Figure 2.3. Cumulative Careless and Reckless Rates by Group. Time Series 1**



\* Starting point for the Study Group is one year after the completion of ADETS and for the Comparison Group, one year plus 46 days.

**Figure 2.4. Cumulative Accident Rates by Group  
Time Series 1**



\* Starting point for the Study Group is one year after the completion of ADETS and for the Comparison Group, one year plus 46 days.

**Table 2.5 Cumulative DUI/DWI Conviction Rates  
Time Series 2**

<b>Length of Time in Months from Starting Point*</b>	<b>ADETS Group</b>	<b>Comp. Group</b>	<b>Diff.</b>	<b><math>\chi^2</math></b>	<b>p</b>
6	4.37	2.57	1.80	116.78	.000
12	8.42	4.81	3.61	254.00	.000
18	12.02	6.81	5.21	386.60	.000
24	14.97	8.23	6.74	542.23	.000
30	17.38	9.65	7.73	473.61	.000
36	19.25	12.28	6.97	239.24	.000
42	22.84	16.68	6.16	55.35	-.000

\*Starting point for the Study Group is the third quarter following the completion of ADETS and for the Comparison Group, the fifth quarter after conviction.



**Table 2.6. Cumulative Careless and Reckless  
Convictions. Time Series 2**

<b>Length of Time in Months from Starting Point*</b>	<b>Study Group</b>	<b>Comp. Group</b>	<b>Diff.</b>	<b><math>\chi^2</math></b>	<b>p</b>
6	1.92	0.98	0.94	77.94	.000
12	3.25	1.75	1.50	115.89	.000
18	4.15	2.38	1.77	124.31	.000
24	4.88	2.93	1.95	127.02	.000
30	5.78	3.45	2.33	117.75	.000
36	6.23	4.34	1.89	42.72	-.000
42	8.54	5.62	2.92	322.01	.000

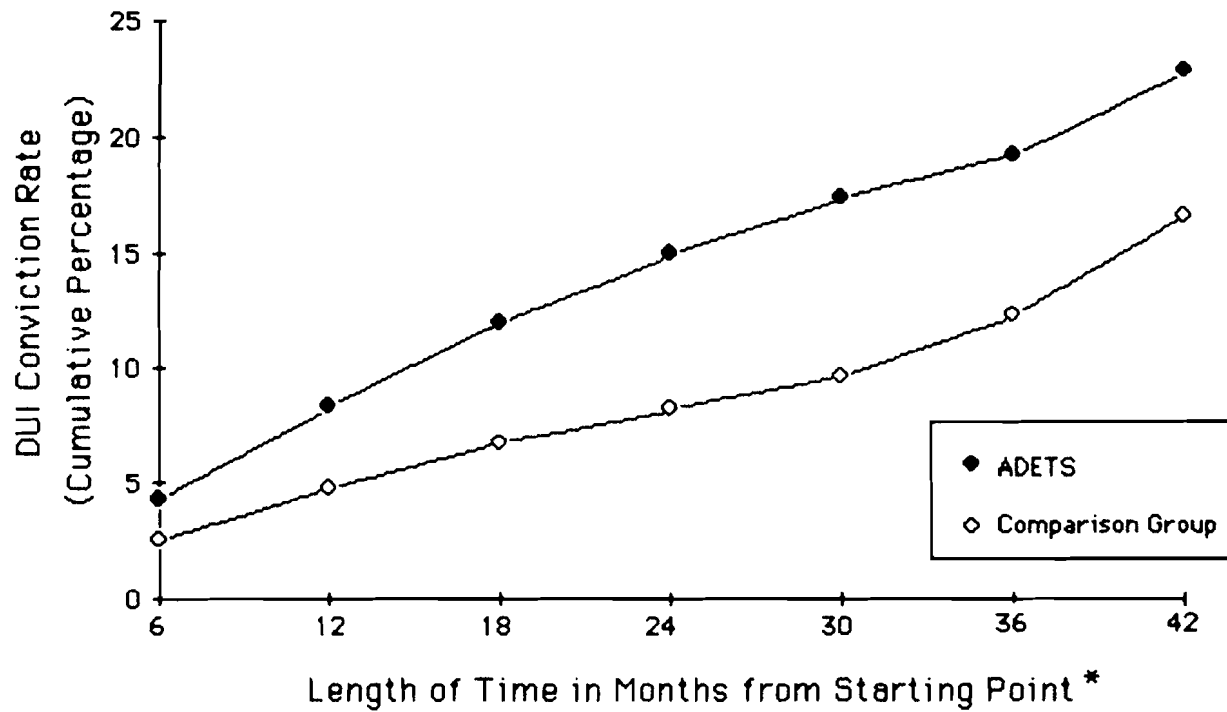
\*Starting point for the Study Group is the third quarter following the completion of ADETS and for the Comparison Group, the fifth quarter after conviction.

**Table 2.7. Cumulative Crash Rates  
Time Series 2**

<b>Length of Time in Months from Starting Point*</b>	<b>ADETS Group</b>	<b>Comp. Group</b>	<b>Diff.</b>	<b><math>x^2</math></b>	<b>p</b>
6	4.31	2.43	1.88	139.66	.000
12	8.44	4.74	3.70	278.99	.000
18	11.50	6.51	4.99	382.66	.000
24	14.35	8.07	6.29	498.70	.000
30	16.98	9.96	7.02	397.53	.000
36	19.10	12.14	6.96	247.57	.000
42	21.00	14.79	6.21	62.28	.000

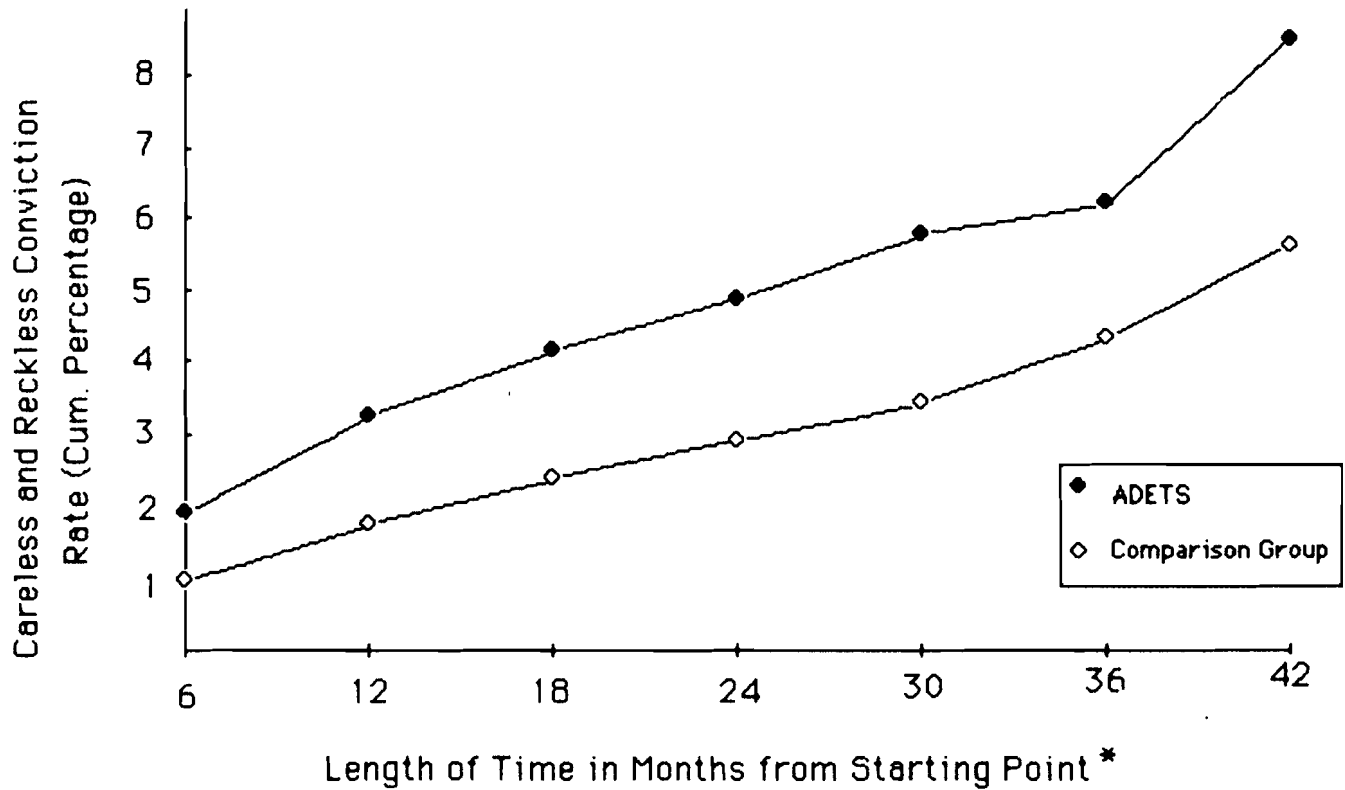
\*Starting point for the Study Group is the third quarter following the completion of ADETS and for the Comparison Group, the fifth quarter after conviction.

**Figure 2.5. Cumulative DUI Conviction Rates  
Time Series 2**



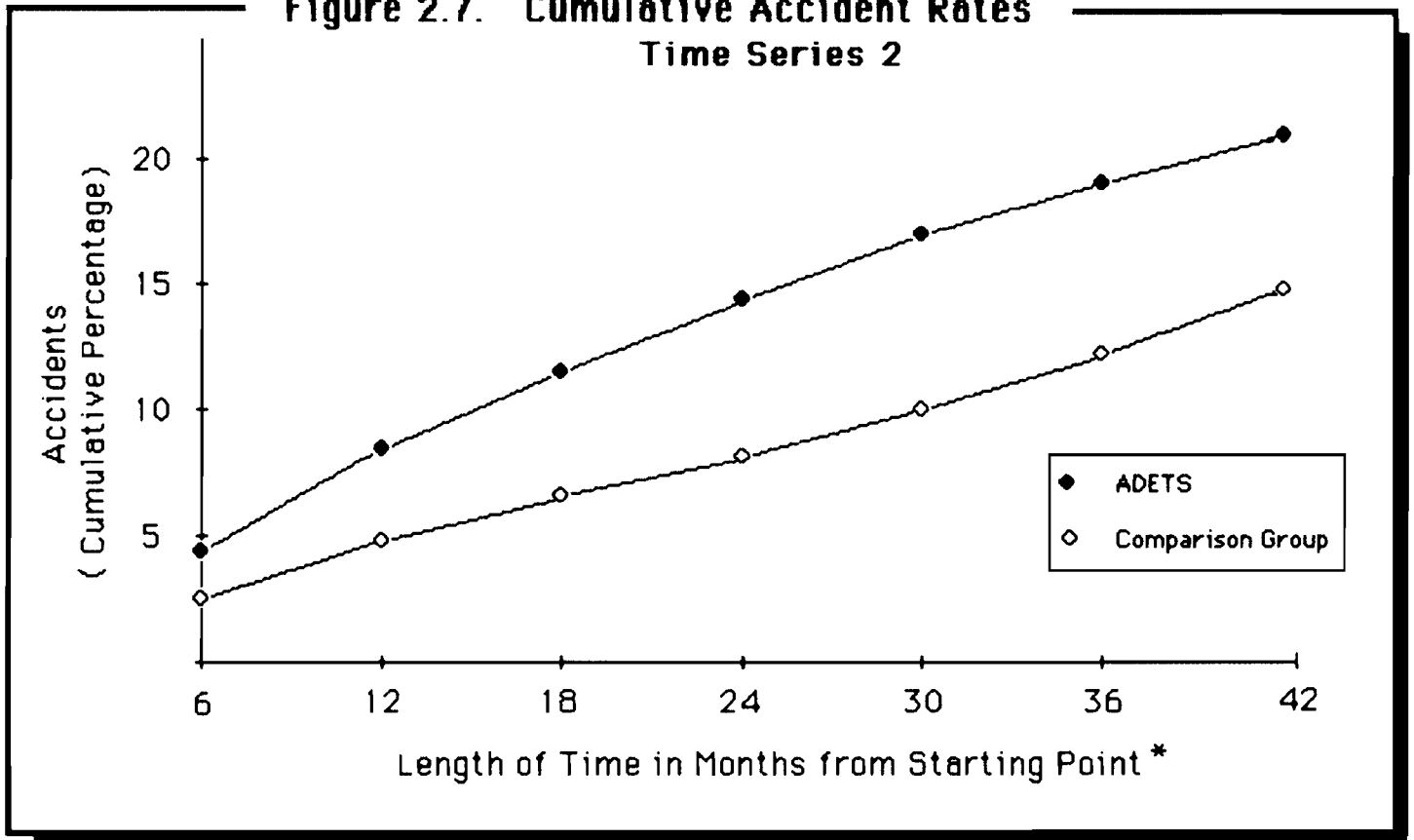
\*Starting point for the Study Group is the third quarter following the completion of ADETS and for the Comparison Group, the fifth quarter after conviction.

**Figure 2.6. Cumulative Careless and Reckless Conviction Rates. Time Series 2**



\*Starting point for the Study Group is the third quarter following the completion of ADETS and for the Comparison Group, the fifth quarter after conviction.

**Figure 2.7. Cumulative Accident Rates  
Time Series 2**



\*Starting point for the Study Group is the third quarter following the completion of ADETS and for the Comparison Group, the fifth quarter after conviction.

that we cannot be certain that the two groups do not differ in other respects that may be related to DWI recidivism or crash involvement such as courtroom dynamics, socio-economic status or miles driven.

However, we do know that the two groups differed dramatically in the license suspension sanctions imposed on them. The law providing for the schools in effect shortened the DMV imposed license suspension from one year to six months for those who successfully completed the school and allowed a court provided limited driving privilege during the six-month license suspension. Those who did not attend the schools received the full one-year license suspension from DMV and were unlikely to receive a limited driving privilege from the courts. Of the sanctions currently applied to DWI offenders which have been carefully studied, license suspension or revocation is clearly the most effective in reducing DWI recidivism and crash experience. Thus, the schools were operating in the context of replacing a relatively effective sanction rather than being given in addition to that sanction. In order to have shown a positive effect relative to the comparison group, the school group would have had to have shown not only a recidivism reduction comparable to that obtained through license suspension, but one that was measurably greater. This clearly was not the case, but it could be argued that it is unreasonable to expect a similar effect on such a potentially deeply ingrained alcohol-related problem as DWI from a 10-to-13 hour exposure of classroom instruction. Nonetheless, that is how the ADETS program was mandated to be implemented, and its effectiveness in that context is the subject of this study.

Given the limitations on study design discussed earlier and the areas to which we were able to provide statistical control, the most plausible explanation for why the ADETS group fared worse than the comparison group on all measures in both the earlier study and the present one is that the comparison

group received more severe license sanctions than the ADETS group, and the deterrent effect of those sanctions was much greater than any that the school may have had.





### III. Review of Recent Evaluations of Other ADETS Type Programs

As part of the current study, recent evaluations of programs similar to ADETS were reviewed and critiqued. Reports on these studies include the Sacramento County Study, Mississippi DUI Program and a preliminary Florida study.

The Sacramento Study directed DWI convictees to home study, class or to a no-treatment control group. Results indicated that the class program did not have a significant effect on accident involvement as compared to the other approaches. Likewise, there seemed to be no difference between home study and in-class education methods in reducing recidivism. Probably the greatest limitation of this study was that it depended on voluntary assignment to the three treatment groups, and the research design did not provide for direct comparison of treatment programs with other post-conviction countermeasures.

Florida's study is a preliminary one. The report's claims for the success of the program are not substantiated in the report due to no mention of confounding variables such as recently enacted legislation and accompanying publicity. Furthermore, there was no comparison made between school attendees and those who were not assigned to the schools. Much of the apparent success of the program may be attributed to regression to the mean.

The Mississippi DUI Probation Follow-up Project had random assignment of DWI offenders, classified as problem or non-problem drinkers, into one of four treatment categories. Results showed no conclusive evidence of the effectiveness of probation or traditional countermeasures (including schools).

A U.S. DOT report on persons attending ADETS type programs under the Alcohol Safety Action Projects (ASAP) shows that 70 percent of the 49,000 persons attending rehabilitation programs at ASAP sites in 1973 attended DWI schools. Twenty-seven percent of drivers were classified as problem drinkers

and 45 percent social drinkers. There were 19 evaluations of ASAP schools reported upon by Ellingstead (1976). Only 6 were felt to have utilized adequate comparison groups and statistical comparisons. None showed any positive effect on accident involvement; one showed an effect on re-arrest rates.

Nichols also reported that "as a whole" ASAP programs had been successful in reducing re-arrest rates of social drinkers referred to the program, but that it had not significantly reduced rates of problem drinkers. One must not lose sight of the fact that many of these programs, even if successful, will reach only a small proportion of those persons who drink and drive.

Knowledge gains, similar to those in N.C. ADETS programs, were documented among those persons attending ASAP programs.

In summary, current literature indicates that drivers attending alcohol treatment programs instead of losing their licenses have a worse recidivism record.

#### IV. Development of a Demographic Profile of Recidivists

First-time DUI offenders who completed ADETS during the year 1982 were subsequently classified as recidivists or nonrecidivists depending on whether or not they had one or more alcohol convictions between completing ADETS and/or no subsequent alcohol convictions, respectively. Discriminant analyses were carried out using a variety of variables from the ADETS file to determine if certain of these variables could be used to characterize or provide a profile of DUI recidivists. The variables considered were:

- Age
- Race
- Sex
- BAC for conviction leading to ADETS
- Marital status
- Highest grade attained in school
- Employment status
- Number of calendar quarters since ADETS completion
- Estimated annual mileage (self-reported).

The variable -- race -- was coded as white or nonwhite; marital status which had several categories (widowed, divorced, etc.) was recoded as simply married or not; and, similarly, employment status was recoded as unemployed or not. Thus, each variable was treated as either a continuous variable or a dichotomous variable.

A stepwise (foreward) discriminant analysis procedure SAS PROC STEPDISC was run on this set of variables. Table 4.1 shows the group frequencies and within group means and standard deviations for each variable.

Table 4.1. Class Level Information.

<u>Group</u>	<u>Frequency</u>	<u>Proportion</u>
Recidivists	3195	0.15647191
Nonrecidivists	17224	0.84352809

Class Means

<u>Variable</u>	<u>Recidivists</u>	<u>Nonrecidivists</u>
Age	29.07230	31.18292
Race	1.23412	1.21958
Sex	1.09984	1.14590
BAC	15.58466	15.05800
Marital	1.28482	1.34794
Grade	11.24038	11.61925
Employ	1.89327	1.91680
Quarters	9.77997	9.63690
Mileage	15.46510	15.98653

Standard Deviations

<u>Variable</u>	<u>Total Sample</u>	<u>Within Class</u>
Age	12.00827	11.98403
Race	0.48278	0.48277
Sex	0.34564	0.34524
BAC	4.92175	4.91815
Marital	0.47306	0.47252
Grade	2.48182	2.47806
Employ	0.28167	0.28154
Quarters	1.15484	1.15370
Mileage	16.87132	16.87067

Table 4.2 gives a summary of the stepwise analysis showing the order in which variables were entered into the model and the significance of each variable entered. Only the variables race and annual mileage were not included in the model.

Table 4.2. Stepwise Selection: Summary

<u>Step</u>	<u>Entered</u>	<u>Removed</u>	<u>Number In</u>	<u>Partial R**2</u>	<u>F Statistic</u>	<u>PRCE &gt; F</u>	<u>Average Squared Canonical Correlation</u>
1	Age		1	0.0041	83.676	0.0001	0.00408161
2	Grade		2	0.0050	102.661	0.0001	0.00906447
3	BAC		3	0.0036	72.919	0.0001	0.01259133
4	Sex		4	0.0023	47.963	0.0001	0.01490584
5	Quarters		5	0.0020	40.927	0.0001	0.01687692
6	Marital		6	0.0013	26.060	0.0001	0.01813047
7	Employ		7	0.0006	12.375	0.0004	0.01872538

The F-statistics and p-values show that each of the seven included variables is highly significant. On the other hand, the average squared canonical correlation (an  $R^2$  type measure) shows that even with all seven variables included, less than 2 percent of the group membership can be accounted for. This is to be expected from an examination of the means of Table 4.1. There it can be seen that although the means differ significantly because of very large sample sizes, numerically they are very close together.

These effects can also be seen clearly by using the discriminant function to predict group membership. To do this the seven variables selected by the stepwise program were input to a second procedure, SAS PROC DISCRIM. This program uses the discriminant functions together with prior probabilities to estimate posterior probabilities for each observation and to assign that observation to the group for which the posterior probability is higher. The prior probabilities completely dominated. Thus, when the prior probabilities were set equal to the actual relative frequencies (i.e., 15% recidivists vs. 84% nonrecidivists) the procedure assigned all observations to the nonrecidivist group.

Table 4.3 shows the classification table obtained when the two groups were given equal priors.

Table 4.3. Classification Table.

<u>From Group</u>	<u>Recidivists</u>	<u>Nonrecidivists</u>	<u>Total</u>
Recidivists	1891 59.19	1304 40.81	3195 100.00
Nonrecidivists	7704 44.73	9520 55.27	17224 100.00
Total Percent	9595 46.99	10824 53.01	20419 100.00
Priors	0.5000	0.5000	

Thus, 59 percent of the recidivists were correctly classified and 41 percent misclassified. Forty-five percent of the non-recidivists were misclassified as recidivists while 55 percent were correctly classified.

Profiles of the two groups, then, would show the recidivist to be younger, less educated, more likely to be male, unmarried, and unemployed, and to have a higher BAC on arrest than his nonrecidivist counterpart. The differences between groups, however, on each of these factors, and, in fact, on the best linear combination of them, is so slight as to be of virtually no practical importance.

V. Statewide Assignment to ADETS

Certain persons convicted of DUI/DWI are eligible to be assigned to ADETS in their county of arrest. (There are some instances where a person may request attendance at ADETS in another county.) The following table presents the percentages of persons who are eligible for assignment to ADETS schools and who were assigned by county of arrest. This information should be particularly useful to local ADETS personnel since it may indicate areas where increased courtroom activity by the ADETS coordinator might prove useful. Likewise, it provides an opportunity for local programs to compare themselves with others.

Table 5.1. Percentages of persons eligible for assignment to ADETS schools and who were assigned by county of arrest.

County of Arrest	Year of Conviction				
	1980	1981	1982	1983	1984
Alamance	70.2	75.3	72.5	73.0	68.4
Alexander	86.4	87.8	80.0	77.3	71.3
Alleghany	69.2	48.5	62.1	64.0	44.4
Anson	58.3	63.2	67.6	65.2	64.3
Ashe	73.8	55.4	48.5	63.3	72.0
Avery	77.4	84.6	74.0	64.9	64.6
Beaufort	69.5	66.5	58.7	63.0	68.3
Bertie	39.5	41.4	36.5	41.9	66.3
Bladen	84.0	84.0	68.4	66.8	57.1
Brunswick	83.9	87.3	79.5	75.9	69.9
Buncombe	74.6	66.5	68.3	69.2	78.2
Burke	86.8	88.8	73.4	66.0	66.7
Cabarrus	81.3	76.2	67.1	69.8	69.7
Caldwell	85.9	89.6	74.1	71.8	72.1
Camden*	75.0	64.3	47.1	28.6	70.7
Carteret	66.2	77.9	65.3	66.1	59.2
Caswell	57.7	61.4	56.2	55.4	48.6
Catawba	80.4	82.9	73.3	70.7	61.2
Chatham	72.1	84.8	73.9	67.2	66.0
Cherokee	66.7	70.0	51.4	51.3	40.4
Chowan	45.2	59.4	32.6	39.1	80.0
Clay*	75.0	46.2	48.3	71.4	60.0
Cleveland	62.0	67.8	59.7	61.6	67.8
Columbus	81.8	75.4	68.4	66.7	63.9

\*Counties without ADETS located in the county but which refer students to adjoining counties.



Percentages of persons eligible for assignment to ADETS schools and who were assigned by county of arrest. (con't)

County of Arrest	Year of Conviction				
	1980	1981	1982	1983	1984
Craven	65.7	74.9	63.7	55.9	49.7
Cumberland	84.3	84.3	68.7	64.7	55.3
Currituck*	39.5	57.8	57.7	52.2	72.2
Dare	56.5	61.8	52.5	58.6	77.3
Davidson	87.0	81.9	70.9	70.7	75.7
Davie*	73.9	81.2	75.2	77.2	72.0
Duplin	67.2	61.1	49.7	56.3	66.8
Durham	86.7	89.0	79.2	77.6	67.3
Edgecombe*	43.0	43.2	50.5	49.3	72.1
Forsythe	80.9	86.9	82.4	82.0	80.2
Franklin	50.8	56.9	57.1	54.8	63.6
Gaston	81.9	75.5	60.8	63.9	52.7
Gates*	47.7	54.2	42.9	35.3	60.7
Graham*	70.8	80.7	34.8	59.5	58.3
Granville	58.8	62.6	56.8	65.7	66.3
Greene	75.8	77.0	63.8	80.6	68.6
Guilford	76.1	80.2	71.2	72.9	67.9
Halifax	30.3	34.8	33.6	44.6	48.9
Harnett	72.8	74.3	62.6	61.2	66.7
Haywood	68.6	72.3	62.0	66.0	61.4
Henderson	79.4	83.5	76.1	76.4	69.8
Hertford	37.0	52.9	39.3	50.4	55.2
Hoke	64.0	71.2	55.6	57.7	60.0
Hyde	76.0	68.0	46.2	60.0	68.9

\*Counties without ADETS located in the county but which refer students to adjoining counties.

Percentages of persons eligible for assignment to ADETS  
schools and who were assigned by county of arrest. (con't)

County of Arrest	Year of Conviction				
	1980	1981	1982	1983	1984
Iredell	86.8	85.6	74.5	79.2	78.6
Jackson	75.4	82.9	70.0	67.9	66.7
Johnston	71.2	74.8	66.0	67.2	66.1
Jones*	58.6	48.4	57.1	48.9	78.3
Lee	76.9	76.5	67.0	64.3	70.6
Lenior	72.9	69.7	58.7	62.3	71.8
Lincoln	71.2	63.4	47.4	56.4	66.9
Macon*	78.7	78.2	69.6	51.7	65.6
Madison	76.5	88.1	61.0	75.0	75.9
Martin	58.1	68.5	58.1	66.9	67.6
McDowell	87.2	88.8	80.0	78.6	65.2
Mecklenburg	79.1	81.6	75.9	75.6	67.7
Mitchell	85.2	84.6	75.0	58.8	62.1
Montgomery	70.5	84.0	68.7	69.5	58.4
Moore	46.4	50.9	59.8	68.7	75.6
Nash	31.2	37.6	43.1	57.5	62.6
New Hanover	71.6	80.1	75.6	76.4	70.0
Northampton	31.1	31.3	33.2	45.3	46.5
Onslow	31.6	38.2	33.9	36.2	49.5
Orange	78.0	78.9	75.0	76.7	70.5
Pamlico*	55.6	82.8	68.4	50.0	69.6
Pasquotank	45.8	50.7	47.3	51.7	74.3
Pender	77.5	68.0	71.1	73.9	67.1
Perquimans*	58.6	57.1	50.0	38.5	47.6

\*Counties without ADETS located in the county but which refer students to adjoining counties.

Percentages of persons eligible for assignment to ADETS schools and who were assigned by county of arrest. (con't)

County of Arrest	Year of Conviction				
	1980	1981	1982	1983	1984
Person	68.8	78.3	62.6	67.7	63.9
Pitt	69.2	84.8	71.7	72.9	68.0
Polk*	80.0	78.4	81.3	72.9	76.7
Randolph	85.9	84.3	74.4	73.3	65.9
Richmond	58.6	46.9	60.2	64.7	73.7
Robeson	73.1	69.9	65.0	65.2	69.3
Rockingham	63.9	68.9	62.1	66.8	66.1
Rowan	80.6	76.2	69.8	72.4	70.5
Rutherford	80.5	84.6	79.5	76.7	77.0
Sampson	61.6	56.9	53.8	56.9	62.9
Scotland	70.2	70.0	75.8	73.9	65.9
Stanley	62.2	68.1	65.8	74.3	70.2
Stokes*	58.0	68.4	64.8	61.8	68.3
Surry	71.9	73.2	68.3	64.9	63.2
Swain*	54.1	61.7	52.9	47.4	69.0
Transylvania	87.2	71.4	65.2	74.4	72.2
Tyrrell	50.0	66.7	61.7	58.8	72.5
Union	60.0	62.5	71.4	76.7	80.1
Vance	62.3	68.6	50.0	57.9	60.7
Wake	60.9	71.2	62.2	59.6	53.8
Warren	48.0	61.3	63.5	61.4	63.5
Washington	69.6	57.6	38.1	48.4	63.4
Watauga	88.6	87.2	74.8	79.5	76.3
Wayne	69.6	69.9	65.3	67.3	68.2

\*Counties without ADETS located in the county but which refer students to adjoining counties.

Percentages of persons eligible for assignment to ADETS  
schools and who were assigned by county of arrest. (con't)

County of Arrest	Year of Conviction				
	1980	1981	1982	1983	1984
Wilkes	67.5	47.5	54.1	64.8	70.5
Wilson	48.6	58.6	46.0	56.1	67.4
Yadkin	66.7	50.3	51.2	64.7	67.0
Yancey	82.4	77.3	69.4	74.4	54.6
Total	71.6	72.0	64.9	66.1	64.9

\*Counties without ADETS located in the county but which refer  
students to adjoining counties.

VI. REVIEW CURRENT CURRICULUM

ADETS

The ADETS curriculum covers a wide range of materials in a relatively short period of time. It is an ambitious curriculum, especially given the time constraints and the wide range of ability, motivation, and backgrounds presented by the participants. Furthermore, actual behavioral changes are exceedingly difficult to effect even when clients or patients are highly motivated and undergo treatment for extended periods of time. How, then, should the limited access to these students best be used? A review of the curriculum suggests several possibilities worthy of consideration for possible modification. Some of the suggestions are specific to content or guidelines, while other suggestions are of a more general nature. The specifics will be presented first.

Section III - REQUIREMENTS AND GUIDELINES FOR CLASS MANAGEMENT

A.3. Have a copy of North Carolina Driving Point Schedule available.

Add, "Also have a copy of the North Carolina Insurance Point Schedule available, along with illustrative corresponding costs."

The driving point system and the insurance point system are two separate systems. The driving point system does not pose a major threat until enough points are accumulated to lead to license suspension or revocation. In contrast, insurance points will almost certainly lead to immediate increases in insurance rates, usually for a period of three years. Thus, increased insurance

costs may prove to be the most expensive financial consequence of traffic offenses, more than fines and/or attorney fees.

#### MODULE A. INTRODUCTION

4. Deal With Hostility. "...involve class members in some classroom exercises to reduce hostilities, fears and anxieties."

It would be extremely helpful to provide some specific examples of such exercises.

12. The Penalties of G.S. 20-138.1 (impaired driving).

b. Driver's license - a privilege not a right.

There are several Supreme Court decisions that clearly state that the right to move about freely in our society (implying the use of the highways and hence a driver license) is guaranteed by Article IV, Section 2; and the first, fifth, and fourteenth Amendments to the U.S. Constitution. The license is more than a privilege, and the major point of the arguments is that a license can be neither denied nor revoked without going through due process (as opposed to a privilege, which can be granted or withdrawn at will). The State clearly has a right to regulate the license but must do so only by means consistent with due process of law. North Carolina does this, so we really don't need to try to push the privilege idea. The students were entitled to their licenses so long as they complied with the reasonable regulations governing its use. Once they failed to comply with the regulations, the State, after having followed due process procedures, revoked their license until further requirements have been met.

15. Homework.

a. Assign as reading material...resource materials....

Most of these materials do not look like assignments. E, G, and H look like assignments, but there needs to be more said about how the assignments would be used. The others do not look like assignments at all but rather perhaps the basis for classroom discussions.

c. (1), (2), and (3). Include addresses of sources.

#### MODULE B. ALCOHOL -- THE DRUG

4. b. (1) light (ordinary) wines contain up to 14 percent alcohol by volume. (Some light wines contain less than 14 percent.)

c. [Proof means twice the percent (rather than amount) of alcohol.]

5. c. (3) 2 ounces wine (sherry) - 76 calories

This will vary - a dry wine will be less than a sweet sherry.

8. Bottom of page on "Number of drinks in a relatively short period of time, etc."

Perhaps "front part" would be more understandable than "forelobes," or at least "forelobes or front part". Not all the students will understand "forelobes."

Page 13, (c) 10-20 Unconsciousness; deep coma; etc.

..."the person usually becomes unconscious before respiratory failure occurs."

Or "almost always" in place of "usually." There probably needs to be some modifier. There are documented cases of people walking out of the emergency room with blood alcohol levels above 0.60.

Page 14 - 12. b. "bladder, kidneys, and sweat glands." The kidneys and bladder are the same system, with the alcohol processed through the kidneys first and then merely stored in the bladder until elimination. "Bladder" should probably be omitted.

Last paragraph. Another important factor is how much food has been consumed prior to and during alcohol ingestion.

Page 15 - 2. d. (1) "alcohol consumption leads to an increase in self-confidence..." Not inevitably. It can also lead to a decrease in self-confidence.

2. e. (2) (b) stopping in front of or far behind stop lines

Page 16 e. (3) ..."The older driver has experience and, presumably, good judgment..." The use of "hopefully" means something other than what I think you want to say.

e. (4) ..."Ask your physician about the effect..." Unfortunately most physicians only know what the pharmaceutical salesman tells them about the effects of the drugs they are prescribing. It may do no harm to ask, but the quality of the information is not likely to be helpful. The pharmacist is more likely to know, but even there the information may not be great.

#### MODULE D. DRUGS AND YOU

This module should be shortened considerably. The best evidence from North Carolina data is that drugs play only a very small part in traffic problems, with the exception of the drug alcohol. Given the time constraints and the relevance of the problem, the time would be much better spent on alcohol rather than other drugs. At the most, the North Carolina experience would probably justify no more than half an hour on this topic. (In contrast, in a state like California there may be more of a drug problem than in N.C.)

#### MODULE E. THE ALCOHOLIC DRINKING DRIVER

1. "Present alcoholism..." Does this mean define and discuss alcoholism? It would be difficult to discuss alcoholism without at least touching upon some



of the moralistic and "scare" aspects that have characterized it, as well as the way our society portrays alcoholism as something comical. This latter point can be contrasted with the realities of alcoholism.

2. "Provide the opportunity for students to explore whether or not they are in control of their drinking." How?

3. b. "John Hopkins questions"-- Johns Hopkins rather than John Hopkins. The "26 NCA questions" in a. refer to the questionnaire in E of the Resource Materials, is this also Johns Hopkins questionnaire?

8. d. (1) "everyday" should be "every day"

(2) "behavior is important factor" - what does this mean?

Specifically what is meant by "behavior" in this statement?

#### MODULE F. PERSONAL ACTION

3. C. "effect" should be "affect"

#### SECTION VI. PRE AND POST KNOWLEDGE QUESTIONNAIRE AND STUDENT CRITIQUE

The instructions to the student should include the statement, "Choose the one best answer." Several of the questions include more than one answer that could be correct but only one best answer.

Question 3. Remove the extra "t" in "safety."

Question 19. "For each one ounce drink of whiskey, an average sized (or a 150-pound) person should wait before driving:"

The one ounce per hour formula works only for a particular weight. A 100-pound person, especially a female, could get into difficulty much sooner. (The fat to muscle ratio also makes a difference in the absorption rate, and that differs by sex.)

Finally, all the true-false questions should be eliminated. From a test construction standpoint, true-false questions are essentially worthless. There is a 50 percent chance of guessing correctly. Five-choice answers are the most desirable (beyond that, the chance of guessing correctly becomes less and less relevant), but it is often difficult to construct five-choice questions in which the four incorrect choices are plausible enough to function appropriately. By that is meant that the incorrect choice has to sound reasonable enough for an uninformed person to consider it a genuine possibility. If one of the incorrect choices is so absurd that it is never selected by an uninformed person, then that incorrect choice may as well not be included. If a four choice question has two such incorrect choices, so that only two of the alternatives sound plausible, then the four choice question is no better than a true-false question. In either case there is a 50 percent chance of guessing correctly.

#### B. STUDENT CRITIQUE

If this critique is to be helpful both as feedback and as an exercise to require the student to consider what has been covered in the class, it is essential that there be ample time given for the student to complete the form. A hurried job will benefit neither the student nor the instructor.

### SECTION VII - RESOURCE MATERIALS

A. 1. Possessing a driver's license is not a natural right, but a conditional privilege, etc.

See earlier discussion on some of the legal aspects of a driver's license. (See also, The Legal Nature of a Driver's License, by John H. Reese. Washington, DC: Automotive Safety Foundation, 1965.)

A. 8. "....Statistics indicate it may go up as much as 150 percent;..."

It can go up as much as 450-500 percent, according to Ben Loeb at the UNC Institute of Government. That is assuming that there is collision insurance, which is required for any vehicle on which payments are still being made.

#### F. DRINKING AND DRIVING STATISTICS

Page 43, Paragraph 4. "It is estimated that between the hours...etc."

This statement is not quite true. The estimates are for certain kinds of places, e.g., in certain urban areas where alcohol is locally sold. The one in ten estimate is usually for the midnight to 3 am period, with the 9 pm to midnight having a lower proportion of drunk drivers.

Page 43, Paragraph 5.

This paragraph does not sound correct. In North Carolina between 77 and 78 percent of the occupants in crashes receive no injury. Another 9-10 percent experience C level injuries, which have no visible sign of injury but complain of pain or momentary unconsciousness. It would be relatively rare for such an injury to require a trip to the hospital. The percentages for both alcohol and non alcohol crashes sound very high and should be checked.

Page 43, Paragraph 11. "Of all the drivers killed each year, etc..."

For North Carolina 44 percent of the drivers have BACs at or above 0.10 percent. Altogether 53 percent have at least some alcohol. (Based on data from the Office of the Chief Medical Examiner, 1983.)

Page 44, Paragraph 2. On an average day...etc.

Page 44, last paragraph. These figures do not sound correct.

#### G. "HOW I PLAN TO AVOID FUTURE DWI BEHAVIOR"

This whole exercise needs to be rewritten so as to require the student to produce more thoughtful responses. As it stands now, most of the questions can

be answered with a yes or no. The following version is suggested:

1. What is your own plan to avoid DWI arrest? (This is the same as it was.)
2. How reasonable is this plan, considering your life style?
3. How will other members of your group accept it? How reasonable will they consider your plan, considering what they know about you?
4. What kind of help or support can you realistically expect from your group in your efforts to follow your plan?
5. What will happen if your plan doesn't work the first time you try it?
6. Assuming that you wish to continue to drink, what are your plans about alcohol use? For example: What changes will be required in your routines?
7. How important is another DWI as a reason for any changes? What else is important?
8. In what situations, if any, would you never drink?
9. What have you learned about yourself in relation to alcohol? (Same as before)
10. How have your views on drinking and driving changed, if at all, since you began this course?

#### H. BEHAVIORAL DESCRIPTION FORM I - MY ARREST

What happens to these forms? How are they used? Does the student keep them, or are they filed somewhere? They look as if they could provide the basis for some constructive discussion. The curriculum should describe their appropriate use.

There are a few guidelines that could make the ADETS experience the basis for greater self-reflection and constructive planning for the future. The major areas examined are, first, the size of the class and the physical setting, and, second, the course content.

The size of the class should be large enough so that there is likely to be a variety of experiences and opinions represented but small enough that all students participate and have an opportunity to interact. Twelve to fifteen members would be ideal, with a minimum of seven or eight and a maximum of no more than twenty. The total time spent together is not long enough to enable a larger group to develop the mutual trust and acceptance necessary for open discussion.

The physical setting of the meeting room should also be conducive to open interaction. Ideally, the physical arrangement would allow face to face contact among students, e.g., with the students seated in a circle. The furniture should be comfortable enough so as not to create distraction but not so comfortable that students are likely to doze. (Most of these groups meet at night after everyone has already had a long working day.) The placement of the instructor should be such that he or she has eye contact with all the students. However, the instructor should not be standing in front of a large room facing a formally arranged class. Such an arrangement is likely to discourage questions and interaction. While the instructor is in charge of the class, it is important that the students feel free to ask questions and to share their opinions and experiences. It is likely that many, if not most, of the students feel that they are present only because the court has ordered them to attend. If the student is to benefit from the course beyond merely meeting the attendance requirement, it is essential that the instructor manage to get the

student to "open up" and get beyond the initial passive or even hostile acceptance of having to attend.

The course should succeed in communicating basic information concerning alcohol, alcoholism, drinking and driving, and the legal aspects on the drunk driving offenses. However, it should also succeed in encouraging and assisting the student in a careful examination of his or her own behavior leading up to and following the arrest (page 46, Behavioral Description Form I - My Arrest), as well as the student's thoughts and plans on avoiding future DWI behavior (page 45, G).

If these materials are completed anonymously, the instructor can review them with the group and let the group react to them. If the behavior leading up to the arrest is presented, the group could be asked to identify the critical choice points where the persons might have responded differently and thus avoided the problem. Likewise, if illustrative plans (page 45, G) are shared with the group, the students can critique each other's plans while the student in question remains anonymous. In this way each student can benefit not just from his or her own introspection but also from the combined resources of the group.

To the extent possible, the information contained in the course should be given secondary consideration to efforts to get the students to think about their own behavior and plan. It would be worthwhile to include practice through role playing or alternative courses of behavior. For example, if a student's plan includes simply saying no when the crowd pushes him or her to drink excessively, then the situation can be acted out with other students applying pressure on the person to drink. Likewise, students can discuss what their responsibility is as an onlooker in such a situation, that is, if one friend is

pressuring another friend to drink, what can or should the third friend say or do? The more specific the alternative behaviors can be made, the more likely they will be available when needed.

The experiences of previous participants in the ADETS schools could also be used as a basis for considering changes in the materials. One previous student who was a truck driver has found that even though he may now legally drive, no company will hire him because to do so would inflate their insurance rates substantially. This particularly driver did not incur his DWI in a truck but rather in his own personal car following a party. He is in his mid-40's with a wife and family and was used to making a good living driving cross country. His entire life has been abruptly changed for an indefinite period of time. There are undoubtedly other experiences that could be compiled and discussed in the ADETS school. Although it is recognized that these students have already experienced a DWI, the knowledge of such far reaching consequences may discourage taking a chance on a subsequent DWI.





## VII. Review of Current ADETS Knowledge Test

The knowledge test used in ADETS was carefully analyzed as a part of an earlier examination of the North Carolina Alcohol and Drug Education Traffic Schools (Popkin, et al., 1983). To our knowledge, there have been no major changes in the knowledge tests since that time. Consequently the findings of the earlier analyses still hold true.

Unfortunately the earlier analysis found that practically no test items were acceptable from the standpoint of basic psychometric criteria. Many items were found to be too easy (too many people getting the correct answer prior to the course) or too difficult (too few people getting the correct answer after the course). Many items included choices that were seldom chosen, indicating that those choices were not functioning and thus, were reducing the number of real choices and increasing the probability that a correct answer would be selected by chance. A significant portion of the test is still composed of true-false items where the chance of guessing a correct answer is 50 percent.

As indicated in the previous report, for the ADETS test to function as an adequate measure of knowledge change in relation to the course, the following criteria should be met:

1. Only multiple choice items with at least four answer choices should be used. True-false items are not acceptable in that there is too great an opportunity for a question to be answered correctly by chance.
2. Each answer choice should be selected by a reasonable proportion of the respondents on the pre-test. If an answer choice is seldom or never selected, then that answer choice could be eliminated without decreasing the effectiveness of the test. A four-choice item in which one alternative is rarely selected is for all practical purposes a three-choice item, and the probability of a correct guess is 33 percent rather than 25 percent.
3. If at all possible, items with combination answer choices should be eliminated, especially for the ADETS population.

4. Ideally the reading level of the test should be lowered to about sixth grade.
5. There should be more than one version of the test, with each form covering the same content areas and all forms approximately equivalent in overall difficulty.
6. Performance on each item should show a reasonable relationship to overall test performance. If students who do well on the test as a whole tend to miss a particular item, it suggests that that item is not a good one in its present form.
7. Both individual items and tests should demonstrate reliability. If students are just as likely to select one choice as another when there has been no intervention or reason for a response to change, it indicates that the item is not measuring consistently and that any results of the test cannot be considered useful.
8. Each item should demonstrate criterion validity, that is, each item should have a demonstrable relationship to whatever the test is supposed to be measuring.
9. Each item, as well as each test, should demonstrate face validity, that is, it should make sense to the student. Even if an item is excellent from the standpoint of measuring knowledge acquisition, if the item is nonsense in the eyes of the student, then the item is not a good one.
10. The content of each item should be covered in the course, that is, students should not be expected to acquire the information necessary to answer an item correctly if the information is not included in the course.

The development and validation of a psychometrically sound test is time consuming and expensive. Once candidate items have been developed, they must be compiled into test forms that cover approximately the same content in the same proportions, field tested with ADETS students, analyzed, and revised on the basis of the analysis. After revision, the tests must again be used with ADETS students to determine if the revisions accomplished the desired effects.

The current ADETS test has not met any of these criteria in that there was neither time nor funding for proper test development. However, it is important to recognize that even though the earlier analysis showed a significant knowledge gain from pre- to post-testing, the findings cannot be considered

valid in that the measuring instrument used cannot be considered adequate to assess knowledge changes. If the ADETS program is to continue testing students to measure knowledge acquisition, serious consideration should be given to the development of an instrument that is psychometrically sound.



#### VIII. Feasibility Study of Pre-Assignment ADETS Attendance

Sanctioning practices for DWI offenders under the Safe Roads Act are determined by weighing the aggravating and mitigating factors in each case. Therefore, it is of interest to determine if it is feasible to identify a group of persons who voluntarily attend ADETS prior to assignment to ADETS by the courts. In the event that such a group may be identified it may be of interest to examine recidivism rates of this group and compare them with those of all persons attending ADETS.

Our programming staff in collaboration with programmers at DMV determined that it was feasible to identify such a group. The following method could be employed for this purpose.

The DMV Driver History RATER format itself is not currently set to provide this specific type of information. However, there does seem to be enough other information available to determine if such an event has taken place through the use of several other variables. There are special transaction trailers which describe the assignment, completion, and/or problems associated with the attendance at an ADETS. In particular, a person who most likely would have volunteered to attend ADETS would be someone who was trying to establish a mitigating factor for consideration under the Safe Roads Act. An arrestee's attorney often will recommend that their client submit to an alcohol assessment and maybe even recommend that they attend the ADETS in order to gain favor at their court hearing.

This means that persons who finish the school between the time they are arrested and the time they are convicted and who have no other alcohol arrest in their record would be the candidates of interest. In addition, there would be no ADETS assignment trailer in their record since this would indicate that the court had sent them to ADETS. HSRC has contacted DMV data management personnel

and confirmed that this is the only way to determine from data files if someone volunteered for ADETS without actually going to the hardcopy records themselves. Based on this particular approach, a study of persons volunteering to attend ADETS could be done.

The number of cases which such a study might provide may be low. Therefore, it is suggested that in order for this to be cost effective, it should be run in conjunction with another analysis.

## IX. Mail Survey of Recent ADETS Graduates

An important part of this evaluative effort consisted of a mail survey of a sample of 500 recent graduates of the ADETS program. The survey instrument employed in the last survey was modified with inputs from the State Level Program. Because the student response rate was low in the initial survey, recent graduates of ADETS were selected with the hope that their addresses would be more current and their recollections of the program more focused. In addition, to assure a better response rate, a second mailing was sent to non-respondents.

In the initial survey, a mailed questionnaire was sent and several target groups were identified. Surveys were conducted to ascertain the opinions and perceptions of various groups having contact with ADETS regarding different aspects of the ADETS program and to obtain their suggestions for improving the program. One such target group was students who had participated in the program. A systematic sample of 212 students was drawn from a list (sorted by driver license number) of students who completed ADETS during the first three months of 1981 (about 5300). Although no attempt was made to sample by different geographical areas, the sample selected included students from 114 different cities and towns. The response rate of students was 26 percent -- the lowest of all groups sampled. For this reason, a survey of recent graduates of the school was included in this study.

### IX.A. Survey Procedures

A sample of 1984 graduates of ADETS was randomly drawn from a copy of the Department of Motor Vehicle Driver History Files frozen as of January 1985. Students eligible to be selected were those persons who had completed an ADETS course between January 1984 and January 1985. Due to a lag in computerizing incoming data received at DMV, this probably means that those students eligible to be sampled were those who had completed ADETS between January 1984 and

September 1984. A total of 500 students was selected. To these students a mailed questionnaire was sent accompanied by a personalized letter and a stamped, self-addressed envelope. The questionnaires were mailed to the person at his/her address as listed in the driver history file. The materials were sent out on January 25th, 1985 by first class mail. In those instances in which a response was not received before Feb. 25th, 1985 a follow-up letter, questionnaire and stamped envelope was mailed. (A copy of the letter may be found in Appendix A.)

A total of 161 students responded to this survey. Returns were processed during March. The unadjusted response rate to this survey was 32%. However, it must be noted that approximately 20% of the questionnaires were returned as undeliverable by the Post Office.

#### IX.B. Questionnaire Design

Since this was not a replication of the earlier study, the questionnaire format changed considerably and consisted of ten questions focusing on three content areas: (1) attendance and familiarity with program, (2) perceived effects on drinking driving behavior, and (3) evaluation of program elements. Students were queried regarding the number of classes and their duration. Student satisfaction with the program was obtained through a series of questions such as: "Do you think you were fairly treated by the program? Did you feel the instructor was qualified to teach the course?" Those aspects of the class that students found to be particularly helpful were sought. Students were asked to describe their current drinking/driving behavior. Finally, they were asked to suggest any ways in which they thought people could be influenced not to drink and drive.

#### IX.C. Questionnaire Results

Responses to questions were tallied and percentages based on total number of responses were calculated. A copy of the questionnaire with student response



appears in Figure 9.1. Responses to open ended questions are included later in Appendix B but do not appear in Figure 9.1.

An attempt was made to determine if length of the course had an impact on student's perception of its beneficial effects. The majority (93%) of students replied that they attended all classes. The number of sessions ranged from one to nine, but most (51%) attended four sessions of the course which lasted usually two to three hours. Although mental health centers have been asked not to conduct 10 hour sessions, 8 percent of respondents indicated that they had a class of 8 hours or longer.

To measure perceived effects on their own drinking-driving behavior, respondents chose one of four phrases that best described their impressions. Eighty-three percent reported that they no longer drive after drinking. Seventy percent agreed that ADETS generally discourages people from driving after drinking, and twenty percent believed that ADETS might change driving behavior for a short while.

Evaluation results were positive. Ninety-seven percent of the former students reported that they were treated fairly by those who administered the ADETS course, and ninety-three percent thought their instructor was qualified to teach the course. Most respondents considered the information presented easily understood (73%) and/or interesting (56%). Subject areas were chosen according to their helpfulness in the following manner:

Alcohol & Drug effects on driving skills	63%
Personal action--avoiding a second DWI arrest	52%
Alcohol--the drug	45%
The alcoholic drinking driver	35%
Drugs and you	30%
Other	12%

A final evaluative item asked students to indicate how they thought the course could be improved. Students thought that examples of "real-world"

Figure 9.1

SURVEY OF STUDENTS OF ALCOHOL AND DRUG  
EDUCATION TRAFFIC SCHOOLS (ADETS)

Please place a check mark next to the answers that you find that most represent the way you feel.

1. How many sessions of class were ADETS students supposed to attend? \_\_\_\_

How long was each of those classes? \_\_\_\_ (in hours)

Did you attend all the classes?

93 Yes

1 No

6 Yes, but I had to make up missed class(es)

2. Had you ever heard about ADETS before you took the course?

98 Yes

2 No

3. Which of the phrases below best describes your present driving behavior after you've had something alcoholic to drink?

83 I don't drive after drinking anymore.

10 I drink less before driving than before.

3 I drive more carefully after drinking.

1 I have not changed my behavior as a result of attending the school.

3 Don't drive - lost license.

4. Do you think you were treated fairly by the people who administered the ADETS course?

97 Yes

2 No

5. What suggestions do you have for improving the course?  
(Please mark as many as apply)

22 (1) Allow more time to cover the materials

38 (2) Make more use of graphs, slides, charts or films

37 (3) Allow more discussions

49 (4) Use more examples of real world situations

7 (5) Provide larger classes

13 (6) Provide smaller classes

9 (7) Provide better classrooms

6 (8) Cut or eliminate certain sections of the course. (Please explain)

21 (9) Other (Please explain) \_\_\_\_\_

6. Which of the subject areas used in the course did you find most helpful?  
(Check all that apply)

45 (1) Alcohol - the drug  
63 (2) Alcohol and drug effects on driving skills  
30 (3) Drugs and you  
35 (4) The alcoholic drinking driver  
52 (5) Personal action - avoiding a second DWI arrest  
12 (6) Other. Please explain \_\_\_\_\_

7. Was the information presented:

73 Easily understood  
6 Confusing  
56 Interesting  
5 Boring  
9 Other. Please explain: \_\_\_\_\_

8. What was your opinion of the ADETS instructor?

93 I felt that he or she was qualified to teach the course.  
1 I felt that he or she was not qualified or prepared to teach  
the course.  
5 Other (Please explain) \_\_\_\_\_

9. Were you also assigned to the Community Service Program?

69 Yes  
30 No  
1 Other

10. Which statement best describes your feelings about ADETS?

70 ADETS discourages people from driving after drinking.  
20 ADETS might change people's driving for a short while after the  
course.  
5 ADETS does not change people's drinking and driving habits.  
4 Other

Please take the time to think about what might influence you to not drive after drinking too much. If you have any ideas, we would really appreciate them. Please write them on the back of this page.

situations (49%) and additional use of graphs, slides, charts and films (38%) would enrich the course. More discussions (37%), more time to cover materials (22%), and smaller class sizes (13%) were also viewed as important for improving the current methods of course presentation.

To determine the prevalence of community service assignments and the effect on the ADETS program, respondents were asked if they had been required to perform community service. Sixty-nine percent replied affirmatively that they were assigned to community service.

Students were asked to convey their ideas about what might influence them not to drive after drinking too much, and forty-five percent responded. Their comments may be found in Appendix B. Generally, strong areas of influence were costs (i.e., fines, financial effects of losing license, time, insurance) and potential danger to others and self. Several respondents suggested incorporation of ADETS information into the driver education curriculum and the inclusion of DWI questions on driver license tests. Some noted their belief that drinking-driving behavior is a social problem, not an individual one that can be remedied by statutes and/or ADETS-type schools. Below is a selected response that describes the costs of a DWI conviction:

\$250	Lawyer	3 hours	Court
25	Reissue license	1 hour	Arrange community service
140	Court fees	1 hour	Lawyer's office
50	ADETS	2 hours	Breath test/magistrate
50	Community service	5 hours	Travel time
25	Alcohol assessment	2 hours	Alcohol assessment
<u>\$540</u>	Total	10 hours	ADETS
		54 hours	Community service

Insurance increased from:

\$125/6 months full coverage  
to \$641/6 months liability only.

Not permitted to drive at all for:

10 days and permitted to drive 5 days/  
week for one year.

This example illustrates that DWI convictions are time and money consuming. It also indicates that many of the respondents put a great deal of time and effort in replying to the open-ended portion of the survey.

Responses to the questions with possible open ended responses follow.

When asked in question five for their suggestions for improving the course, ten students replied to the item concerned with eliminating sections of the course. Three answered that nothing should be cut, and none mentioned a specific section that should be excluded.

In the second open item of question five, thirty-three respondents listed comments for course improvement. Seven of these thought the course was adequate as it was presented. There was no consensus on any recommendation, but a representative example includes:

- The course should be geared less toward alcoholism and more toward drinking-driving.
- Fee should be reduced or eliminated.
- Overcrowding should be avoided.
- Classes were five hours in length, which was too long.
- One of the films demonstrated the effects of alcohol at a driving range. Let students perform this activity or a similar one.
- Bring in speakers who've had accidents after/while drinking and driving.
- Obtain newer films, the ones used were dated in dress, automobiles, etc.
- The role of drinking-driving as a result of personal problems needs to be addressed more thoroughly.
- Compare classes according to age groups; they have different interests and motivations.

Question six listed five subject areas, and students were asked to choose those that were most helpful. The final item was open-ended, and there were 19

responses. Seven responded that none of the areas was helpful or they already knew the material, three found all subjects helpful. Other areas of interest included discussion of the expense and inconvenience resulting from arrest for DWI and the effects on insurance coverage and rates.

Fourteen responses were supplied to the "other" item in question seven concerning the presentation of information. Several respondents referred to the need for more recently made films; others called for additional scenes of accidents.

The open portion of question eight addressed students' opinions of ADETS' instructors. Seven commented that their instructor(s) were adequately qualified or were superior. One student perceived the instructor as being frustrated because of a lack of time to cover materials. Another was favorably impressed with the instructor because he treated students as people who had made a mistake rather than as criminals.

Overall, results from the survey were positive. Most respondents replied that they no longer drive after drinking and that ADETS discourages people from driving after drinking. The program was evaluated favorably. However, a total response rate of thirty-two percent merits caution in terms of representativeness when interpreting and/or extrapolating results. The student population appears to be highly mobile; twenty percent of the questionnaires were undeliverable by the post office.

Results from this survey are useful for comparison with responses from the 1983 survey. That survey also yielded a low response rate (26%) and evidence of a mobile group, which suggests that we might need to develop different methods for surveying former ADETS students. Responses were similar in evaluation of subject areas, course improvement statements and perceived fairness of instructors. The percentage of respondents who believed that ADETS discourages

people from driving after drinking was sixty-nine percent, compared to thirty-three percent in the 1983 survey. Ninety-seven percent of the respondents in the 1985 survey thought instructors were fair; seventy-seven percent judged this to be the case in 1983. Based on these comparisons, there appears to be improvement in students' opinions concerning ADETS instructors and effectiveness in counteracting self-reported drinking-driving behavior; perhaps this is a function of less lengthy class sessions.





REFERENCES

"Driver Improvement School evaluation report." State of Florida Department of Highway Safety and Motor Vehicles News Release. 16 pp. June 1, 1984.

"Florida driver improvement schools highly effective study shows." State of Florida Department of Highway Safety and Motor Vehicle News Release. 5 pp. June 27, 1984.

Hagen, R.E., et al.: An evaluation of alcohol abuse treatment as an alternative to driver's license suspension or revocation. Final Report. CAL-DMVRSS-78-68. 11 pp. 1978.

Landrum, J., et al.: Mississippi DUI probation follow-up project. NHTSA DOT HS 806-274. 420 pp. Oct. 1981.

Nichols, J.L., et al.: The specific deterrent effect of ASAP education and rehabilitation programs. J SAF RES 10(4): 177-187.



## APPENDIX A

Letter sent to Recent ADETS Graduates

THE UNIVERSITY OF NORTH CAROLINA  
HIGHWAY SAFETY RESEARCH CENTER

CTP - 197A

CHAPEL HILL, NORTH CAROLINA 27514

TELEPHONE  
(919) 962-2202

B.J. CAMPBELL  
*Director*

FORREST M. COUNCIL  
*Deputy Director*

DONALD W. REINFURT  
*Associate Director  
Analysis Studies*

PATRICIA F. WALLER  
*Associate Director  
Driver Studies*

WILLIAM W. HUNTER  
*Program Manager  
Engineering Studies*

JOHN H. LACEY  
*Program Manager  
Alcohol Studies*

BEVERLY T. ORR  
*Program Manager  
Public Service Programs*

The Highway Safety Research Center of the University of North Carolina has been asked to conduct an evaluation of the Alcohol Drug Education Traffic Schools (ADETS). As a part of this effort we would like to find out what persons who attended the schools think of them so that we may make them better. We understand that you are a recent graduate of ADETS.

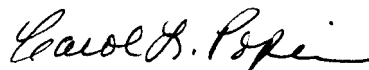
I know that you are probably very busy, but please take the time to complete the questionnaire and return it to us in the enclosed stamped envelope. We believe that the views of recent graduates are very important. Your answers will remain confidential. All results will be reported as group information, and your name will not appear anywhere in the report.

If you would like to make additional comments about any of the questions, please write them in the margins. We want very much to know how you feel about this program.

If you have any questions, please call us collect at (919) 962-2202 and ask for me or John Lacey. We will be happy to provide you with any further information.

We cannot know how to improve this program without your help. We are very grateful for any information you can give us.

Sincerely,



Carol L. Popkin  
Research Associate

CLP:pj

THE UNIVERSITY OF NORTH CAROLINA  
HIGHWAY SAFETY RESEARCH CENTER

CTP - 197A  
CHAPEL HILL, NORTH CAROLINA 27514

TELEPHONE  
(919) 962-2202

B.J. CAMPBELL  
*Director*  
FORREST M. COUNCIL  
*Deputy Director*  
DONALD W. REINFURT  
*Associate Director*  
*Analysis Studies*  
PATRICIA F. WALLER  
*Associate Director*  
*Driver Studies*  
WILLIAM W. HUNTER  
*Program Manager*  
*Engineering Studies*  
JOHN H. LACEY  
*Program Manager*  
*Alcohol Studies*  
BEVERLY T. ORR  
*Program Manager*  
*Public Service Programs*

March 14, 1985

Dear ADETS Graduate:

Help! We are trying to get the ideas and comments of recent graduates of North Carolina's Alcohol Drug Education Traffic Schools (ADETS) so that we may make them better.

Please take the time to tell us how you feel about the program by filling out the enclosed questionnaire and returning it to us in the envelope we've provided. If you have any questions, please call me or John Lacey collect at (919) 962-2202.

Your answers and comments will really be useful to us. Thank you for your help.

Sincerely,

Carol L. Popkin  
Researcher



## APPENDIX B

Comments of Recent Graduates of the ADETS Program

COMMENTS OF RECENT GRADUATES OF THE ADETS TO PROGRAM TO:

Please take the time to think about what might influence you to not drive after drinking too much. If you have any ideas, we would really appreciate them.

- 009 It's too premature for me to fill this out because I lost my license for a year and was given no privileges. Therefore, I hardly know how this is going to affect my driving habits. I don't drive at all.
- 011 I wished it didn't cost me as much as it did! Almost my home, my job, bills & fines I don't have money for anymore. Not having money for food and clothes because I have to go for everything I have to pay out.
- 039 1. Accidents  
2. Getting a DWI  
3. The trouble of going to court and the money of insurance and fines that you have to pay
- 044 I am not sure if the ADETS material is covered in Driver's Ed. If it is, it may be presented at too early a time in the young driver's career. I didn't have my first drink until I was 18 (laws were different then) and a mandatory course then and at the time I turned 21 would have been helpful. Not sure how practical this suggestion is, but here it goes:  
Offer ADETS material in Driver's Ed, grant 2-year license.  
Offer advanced material on alcohol & drugs to re-license driver at age 18 ( must attend class or pass battery of related questions) get 3-year license.  
At age 21, make it mandatory to attend classes before receiving 4-year license.  
Always include section on DUI laws on driving test.
- 051 The entire package is very and perhaps too strong in accordance with guidelines. My situation, older and with no driving record should not have the enforcement which, to me, is patterned for the younger (or) multiple offense violator.
- 067 I think your course is effective. People won't quit drinking until they want to no matter how much you talk. All you can do is to make people aware of the facts. I think your class does that.
- Dear Sirs,  
I filled out this survey hesitantly. I feel I have done enough concerning my conviction of driving while impaired. I not only went to ADETS but did community service work, and went to the drivers improvement clinic. I therefore would appreciate it if in the future you would survey someone besides me. This conviction is behind me now and I'd like to keep it that way.
- 077 I'm not sure ADETS will change anyone's habits. That depends on that person, but the education may certainly get people to think. I think the main reason for not drinking and driving is the thought of injuring someone else or yourself or killing someone.



085 Getting caught!

- 097 1. The thought of having another wreck  
2. Penalties by the Law  
3. The federal intervention into these situations  
4. Feelings of hangovers and the effects in general.

099 The loss of license, overnight in jail, fines and community service is what changed my drinking and driving not ADETS.

100 What influences me most is jail time and the thought of hurting or killing someone else other than myself.

106 I will never drink and drive again. It is too much trouble to go through with. It's very costly and you sure can endanger other lives. After the ADETS class, you realize that a lot more. The class is worth listening to.

110 Knowing more about alcohol gives people a different view on drinking and driving.

115 Mainly thinking about getting in an accident and someone getting killed maybe myself or someone else and if someone else the suffering you must go through living with the fact that you killed someone in such a foolish non-excusable way. Also if no one gets killed maybe myself or someone else getting permanent damage such as being paralyzed for life. I HAVE LEARNED. Drinking is something that in the long run you will be sorry you ever started.

161 I would suggest that more graphic films be used to demonstrate the results of drunk driving or perhaps taking class members to a local emergency room to graphically illustrate what can happen if a person drinks and drives. ADETS instructor was very good. Please feel free to contact me if you desire more information.

163 My ideas about the class are fine, but the blames are put on drivers. When you can buy beer and wine everytime you stop for gas that's the trouble but the poor driver gets the blame. The state sell you this stuff and put you in jail for drinking it I don't no how others feel but I drove all over the world without any trouble. When I came to Carolina in 1965 that's when my trouble began. This is one man's idea, what is yours?

- 169 1. Extended bus service hours  
2. Cabs running specials-late hours

It maybe more sensible to send this questionnaire soon after a person takes the ADETS course. It's been almost a year since I've taken the class.

171 ADETS may discourage people- it doesn't deter people who have gotten numerous DWI's like most of the men in my class. This is my first DWI-and my last-the whole experience, including court and this class scared me unbelievably. I don't think I'm a criminal. I think I'm a normal person who made a bad mistake, but this experience placed me in a group of criminal type people-- and I don't

intend to ever find myself there again. What served to deter me probably won't work with other people.

- 203 To who it may concern there are lot of people that are still driving and drinking. They don't know what danger they are in in what they can do to other until they attend ADET class. But on the other hand this day in time people think only about themselves. They don't take time to think about anything else. The Law is the Law. And I and withit all the way. Thank you  
P.S. Any way I can help I will if I can Thank you.
- 205 I. The trouble & sorrow brought upon myself & family.  
II. The loss of finances; no license for me means no jobs in this past year  
IDEAS:  
1. Personally I think the state is the culprit in past; By being a licensed pusher.  
2. Also the law enforcement seems to step upon middle-class & lower class people, & this is setting double standards far from being democratic.  
3. Alcohol is a social dilemma, investigate into the reasons drinking appeals; speaking personally, I would say no job, or no astute job loneliness, family problems.  
4. Hopefully I will be getting my license in March, & hopefully I can avoid drinking yet I am single & I like to dance & like girls and alcohol in at the social apex, and I know for my own mental & physical & financial well being that this is a lure I have to avoid.  
5. I personally have followed prey to both alcohol & drugs in combination, any youth that approaches me I try to discourage them from using either drugs or alcohol, because I know the personal grief it has caused me and my family.
- 206 It's like I told the Instructors at ADETS, I hadn't driven while drinking in over 8 years. It was a family problem that caused this problem of mine which is no excuse for my drinking & driving. No one should drink & drive it's a deadly weapon on the highway.
- 207 After getting a DWI, that's all it took for me.
- 236 Every child should have to take a course very similar to this in Driver's Ed. Before they mark their record with a DUI. It could have helped me at the right time.
- 246 If you drink, don't drive, because you might hurt someone. I lost my job. I am married, and have two children, and out of work, because of drinking. I hope you all can help me to get my license back, because that was my job. I haven't drink in two year, and it is very hard by being out of work. Thank You.
- 258 Because drinking and driving don't mix.
- 283 The current law is the main thing that I don't drive now. The ADETS course helped alot because the insturctor mad it interesting. A drunk thinks they won't get caught. The ADETS course will make you think about it. If you have more instructors as Jerry Narron, you will have more understanding people that don't have a bad attitude about the

course. Everyone in the class (about 20) that I talked to, said they enjoyed it. Jerry changed their attitudes as he did mine. The first thing he did was have everyone feel at ease & the rest of the course was nice. No one minded asking or answering questions. The instructor is the main key to anyone learning anything.

- 298 I believe that ADETS is a very worthwhile experience. However, the amount of time that elapses from arrest to conviction is long enough to permit a second offense without going to ADETS to possibly prevent a second offense.
- 308 ADETS discourages you from drinking & driving with facts that concern you. The Law discourages you from DUI with facts that concern you, your bank book, & sometime seems like that would be enough. It isn't after drinking too much, the only thing that is going to discourage you from driving is you, or the people that are there with you. The latter is the key one. Usually it is your peers with you, and if they would express themselves it might help. The problem there is they don't understand the seriousness involved when they say "you shouldn't drive." The law isn't there just to be another law, it's there to save lives. I feel lucky in a way that I got a DUI. If I could only pass it along. Everyone needs to take the course. What if everyone had to take the course in order to get there license. I think the course should emphasize that the DWI violation they have received has possibly saved their lives or other's lives. As far as you discouraging yourself, I think that will be true only .4 of the times. Sad isn't it? Thanks.
- 352 Causing an accident involving someone else besides myself, and causing someone or myself to be seriously injured.
- 355 All you have to do is just stop and think how many lives you are endangering, including your own
- 356 The information was very interesting and educational, also honest and straight forward. I went to the class with much resentment and left with a great deal of appreciation !

It would have been helpful if the class had been offered at night.

- 360 What will influence me would be to think about other people that don't drink and have little kids. And what kind of danger I'm putting their life in, when I'm drinking & driving out on the road. And how could I leave with myself I knowing hurting helpless people on road because of my drinking disease out on the road.
- 367 1. Wrecking a car while drunk or high  
2. Seeing a friend for the last time at a party, and never seeing he or she again  
3. The cost
- 374 The class influence me a lot. I believe the class need to be offered before you get in trouble with the law.
- 384 I really had a bad accident from drinking too much. I lost my

driver's license for 1 year, had to do community work and I was also put on three years of unsupervised probation. My drinking wasn't worth having to go through the trouble that I have gone through and still having to go through. That is why I would think twice before I drive and drink again.

410 All that big fine I paid at the courthouse made a believer out of me

426 After watching the film, and knowing what can happen to you from what I learned. I couldn't possible pop a can and turn a wheel and I also try to encourage my friends and other people not to drink and drive, because it's not worth loseing your life for.

430 I wouldn't drive anymore after drinking to begin with; I could kill someone or get killed myself.

444 I feel that the ADETS course should be better advertised to get to people before they get a DWI. Maybe it should be given to students in high school as part of their driving education course. The course did discourage me from ever getting another DWI so maybe it would stop others before they go out and drink and drive.

475 The only ideas I have for not driving & drinking are taking the chance of getting another DWI. It's embarassing to me and to my family. My mother is 84 yrs of age she does not allow drinking in her home which is where I live. I'm 42 yrs old & the thought of not being able to sit & have a beer at my own home is probably the reason when I go out, I drink more than I should. She does not know about my DWI & hoping she will never find out so I've had to say home alot which is probably real good because I've really learned to enjoy my home. I've redone upstairs & sanded the hard wood floor. So like the old saying goes. "Something good always comes out of everything." The course I took was very interesting. The course should be offered to the public, so they can learn before it's too late for them. The reason I answered the question no. 5 because I felt that there were alot of questions I wanted to ask but in a big class I didn't- half the class had the course at least 2 times before & it was a joke to them- which mad it hard for the others. Thank you for letting me share my opinion with you.

484 Dea mun

See me an a friend went to Cleveland in a VW and we got hit by a train and it killed him and I didn't drink very much. Since then it hurts to see a friend dead over drinking. See I wasn't drinking that day that I got one I was taking one pill well thats all I know to say.

202 I really know it was wrong to drink and drive. But that was the first time anything every happened to me and I guess that's why it happen because I had drank a couple of beers and it didn't work cause I was driving and I shouldn't have been because I don't drink why I drive. But I guess when you be with friends anything can happen. But I really have learned my lesson to not do it again cause without your license it just isn't the same and I really miss them. And when I get them back I won't make that mistake no more.

250 Dollars Spent  
Lawyer \$ 250.00  
Re-issue lic. \$ 25.00  
Court fees \$ 140.00  
ADETS \$ 50.00  
Comm. Ser. \$ 50.00  
Alcohol ass. \$ 25.00  
total \$ 540.00

Time Spent  
3 hours court  
1 hour sitting up comm. ser.  
1 hour Lawyer's office  
2 hours-breath test & magistrate office  
50 hours. Comm. Ser. assigned 48 hrs.  
but did a study at the county landfill  
and to make study complete had to count  
vehicle entering for 6 days-actual time  
54 hours-because I took no lunch hour.

I have a daughter 16 yrs. old.  
My car Ins. with only liability  
is now \$ 641.00 per 6 mos. It  
was \$ 125.00 with full coverage  
per /6 mos. This lasts for 3 years  
because of the DWI.

3 hours. travel time  
2 hours alcohol ass.  
10 hrs. ADETS  
2 hours travel time  
total 74 hrs. wasted time  
10 days not able to drive  
1 year- only able to drive 5 days per/wk

NAME IN COURT DOCKET.

I think that first offenders ( first traffic violation I've had in  
over 20 years) the punishment is too great. Second offense-yes-throw  
it to them- I've been made a second class person when I hurt no one-  
I could have killed a neighbor in a fight and been turned free-  
I would not have lost my driver's license and my insurance would not  
have increased. Why three years? I DO NOT UNDERSTAND

354 I stop drinking before I started adets course. You have to want  
something more.

387 I feel the course should be taught as part of Driver Education in  
High School. I believe the course was entirely too long and in my  
situation too expensive. A person really doesn't have much choice  
about community service unless he or she wants jail time. There  
aren't enough sponsors in this area for community service, and  
from what I have seen or heard the sponsors that are here really  
don't have that much for one to do.

441 The how is still the major contributing factor/argument against  
drinking/driving.

468 I think that a lot of people don't know the harmful effects  
of alchol. I think the classes should be longer and the harmful  
effects of alcohol taught more to the younger people.  
The ADETS classes helped me to quit drinking. I learned things  
about alcohol that I never knew. I am 47 years old and wished  
that I had gone to the school when I was 20.

- 473 People who drive and drink is not just putting their lives in danger, but the lives of other people on the road. Everyone should have the right to be on the road. Not just the people that has had too much to drink. If you are going to drink stay at home and don't drive.
- 487 \$1,500 a year for car insurance is a good deterrent to drinking and driving.
- 490 I cannot really answer this question. It wasn't getting caught or ADETS that influenced my decision to quit. It was getting something in my life that had meaning, myself, my wife, and the baby that is on the way. I do not know about other areas, but here young people (ages 14-30) drink. If they do not drink they are not in the majority anymore. Most of these kids are from nice families and are involved in church. So the reason are hard to pinpoint. The stricter drinking laws, the ADETS have not changed this fact. When you go in a courtroom, the same people are there for DWI. Prison, school, or anything else that state is doing is not helping these young people. Most of the young people that have attended ADETS come out saying "Well, I learned how much I could drink and then drive without blowing much." I actually came out believing I could drink a beer or a mixed drink every hour. I am sorry I do not have any answers. All I know is that punishment has not helped these young people. If the state does not find a better way then punishment, fines, and ADETS the young people today are in serious trouble. DRINKING IS THE IN THING. No laws are going to change that.
- 470 I think that it is not worth the time and money that you are spending on this. But I did learn a lot that I did not know if I had not went to school. Maybe I would have been in a wreck and killed me or the other person. Yes, I really learned a lot.
- 428 Blood and gut films hit home with me and it makes you think twice drinking and driving.
- 334 After getting the DWI, it cost me time and money. Also, after the DWI, I heard about drunk drivers hitting a car and killing someone. It made me think about what I had done and what had happened if it would have been my family that had been killed. Its been almost a year now. I don't drink anymore or ride with anyone that had been drinking.
- 351 The thought that I'm endangering someone else's life besides my own. The consequences of that are very detrimental.
- 441 The law is still the major contributing factor/argument against drinking/driving.
- 504 The course was very good, however there was such a mixed group of ages, sex, nationality, and past experience on alcohol til it was a little hard for an inexperienced person on alcohol to participate in the program. I think a class of more therapy with people interested in the problem which you could relate with, would have been more useful and beneficial. I found a number of people were there only because they were forced to

go-watching the time to get out instead of getting the lesson they were there to learn and if you asked a question, an innocent question, to you, they were looking and laughing at you because you was participating. The part on the insurance for the future was very confusing since you were unable to get any estimate of any kind, everyone knows its going up, but the answer not to tell your company about the DWI is not the answer. All they need to do is pull your number upon a computer, and they will find out.

As a whole, I would say it was enlightening but some parts of it such as how long to wait at a lounge to drive after taking a drink could have been eliminated. How many people are going to set in a lounge two hours after taking two drinks to leave? Let's just stick with the thought "if you drink, don't drive".

- 505 I think that the ADETS program is very good and presented very well. But I do think a lot of offenders will fall back into the same routine of drinking and driving after a period of time.

I feel like brochures and reminders should be sent out for a few years after the program to encourage drivers to do right. Also we need more incentive, for instance, first offenders that go one or two years with a clean driving record after the offense to get some refund or credit from insurance companies or the state towards the extremely high insurance rates. That could really encourage the ones who really want to straighten up, and it would not give any advantage to someone who wants to keep taking the risk of drinking and driving. It could result in a lot less second offenders.

Another thing that would influence people not to drink and drive is more routine license checks at unusual times and places. There are a lot of people that are confident of driving at certain times and places without getting stopped. The traffic license checks need to be more unpredictable.

- 508 Loss of licenses again.

Chance of hurting or killing someone including myself.

Knowing people who took the chance again and suffered the outcome. Going through it one time was lesson enough for me.

- 511 If I were somehow made fully aware of the consequences, dangers, risks, etc. involved, it would help me to stop and take a look at my lifestyle and habits and just generally "nature" in the area we are dealing with here. ADETS has helped me to do just that as well as all the public attention has.

- 516 You must help yourself.

- 517 Loss of money and time.

- 519 Not let alcohol take the best of you. Take time to think unless you are stupid.

