

FINAL REPORT
CHARACTERISTICS AND EFFECTIVENESS OF THE FAIRFAX, VIRGINIA
ASAP DRIVER IMPROVEMENT SCHOOLS

by

Charles B. Stoke
Highway Research Analyst

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ABSTRACT

There are two driver improvement schools in simultaneous operation associated with the Fairfax, Virginia ASAP. One is conducted by the Northern Virginia Community College and the other by the Fairfax County Public Schools.

The NVCC organized and developed a specialized alcohol curriculum prior to the establishment of the FCPS program. For this report, data from the NVCC classes are more numerous, consistent, and organized. The FCPS program is now overcoming its initial organizational and administrative difficulties.

This report analyzes the data available on the effectiveness of the driver knowledge portion of the NVCC program. There was a statistically significant increase between pre- and posttest scores. All this benefit cannot be definitely ascribed to the curriculum because the pretest was reviewed by students after completion. Some unmeasurable portion can be attributed to course content and instruction.

For future evaluation, analyses are proposed to be carried out in the following areas: (1) FCPS knowledge scores, (2) NVCC and FCPS attitude scores, (3) recidivism rates for NVCC and FCPS graduates, and (4) the comparative effectiveness between the NVCC and the FCPS programs.

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BACKGROUND

The U. S. Department of Transportation, National Highway Traffic Safety Administration, sponsors a program of comprehensive alcohol countermeasure projects in 35 selected communities. The Fairfax (Virginia) Alcohol Safety Action Project is one of these programs, and it is designed to effect a reduction in the incidence of drunken driving and alcohol-related highway crashes, injuries, and fatalities by directing comprehensive campaigns against drunken drivers. The four basic countermeasures consist of enforcement, adjudication, public information and education, and rehabilitation and treatment. One of the treatment modalities within the rehabilitation and treatment countermeasure is the Driver Improvement Schools (DIS) conducted by both the Northern Virginia Community College and the Fairfax County Public School System. These schools are designed to reeducate the drinkers classified by probation officers as social drinkers so that they will not drive while intoxicated.

Northern Virginia Community College Program

The Northern Virginia Community College (Annandale Campus) was selected by the Fairfax Alcohol Safety Action Project to provide the initial Special Driver Education Program.^{1/} NVCC is one of the two educational agencies providing alcohol-related driver improvement programs for the Fairfax ASAP. At NVCC, the program is under the supervision of William B. McCampbell, Director of Continuing Education and Community Services, with Anthony J. Del Popolo, Sr., Associate Professor of Law Enforcement, serving as Coordinator and one of the six instructors.

The first class met on March 17, 1972. During the ten-month period, from March to December 1972, 41 classes were completed. Each course consisted of eight sessions of two hours each, meeting once a week. Classes were conducted on Thursday and Friday evenings from 7 to 9 p.m., and on Saturdays from 10 a.m. to 12 noon and from 1 to 3 p.m. A maximum of 15 students were enrolled in each class.

^{1/} The narrative describing the operations of the Driver Improvement School at NVCC was excerpted from the December 1972 ASAP Quarterly Report.

Some of the basic concepts of the educational program evolve around the facts that many people do drink, that drinkers do drive, that drinking impairs a driver's skill, that drinking increases the risk of accident involvement, and that for many persons, social and legal problems result from drinking and driving.

Each of the instructors follows a prescribed format in the use of class time and audiovisual equipment. Each session is briefly described below.

Session I (Alcohol and Highway Safety)

At the first session, the participants enter the classroom and the instructor greets them. At the beginning of the class the instructor and students introduce themselves. The instructor passes out a registration form which requires some personal identification information.

In the following minutes, the instructor relates information about the ASAP program and how it affects each class member. He tells of his responsibilities to the college, to ASAP, and to the students; and then notes what the students' responsibilities are. These latter include coming to class prepared, on time, and sober.

A drinking and driving knowledge test is passed out and answered by the students. The same test is given at the course's completion and the results are compared. The answers to the test are reviewed at once, or at the next session. Following the Information Test, the course guide, "Just One For The Road", is distributed, and the instructor mentions various ways in which it can be utilized.

The final 30 minutes of the first hour are devoted to making introductory remarks concerning the film "Highway of Agony," showing it, and soliciting written comments of two or three sentences from each student. A 10-minute break is given.

When the group reassembles, the filmstrip "Alcohol or Highway Safety" (with narrative) is shown. This aid presents facts about the use of beverage alcohol and the operation of a motor vehicle. Various facts and figures noted in the presentation are discussed with the group.

Home Quiz One, which is to be completed and returned the following week, is distributed to the group. A pre-arrest form is also distributed, and this too is to be filled out and returned at the next session. The students are asked to relate their circumstances twelve hours before apprehension by the police officer for driving under the influence of alcohol. The class is then dismissed.

Session II (Effects of Alcohol on Body and Brain)

The first point of business is the collection of the pre-arrest forms. Students who wish may describe their personal experience in this regard. Next, Home Quiz One is discussed. Students are asked to participate in the answer session.

The filmstrip "Alcohol, Fun or Folly" is shown. Information relating to the effects of alcohol is supplemented by showing the filmstrip "Alcohol, Your Blood and Your Brain." To further amplify the effects of alcohol on the brain, and consequently on driving, the film "Just One" is shown. Discussion follows. A 10-minute break is given at this time.

Opinions are often expressed and questions asked by the students concerning the effects of alcohol on the brain and on driving. The film "Verdict at 1:32" addresses some of these questions, as it discusses the effect of alcohol on both light and heavy drinking drivers. An actual laboratory dissection of the brain is shown. Discussion follows.

A short inquiry is made into the effects of alcohol on the liver. Real liver tissue, showing a pathological change in the cirrhotic liver specimen compared to normal liver tissue, is passed around for viewing by the group.

Home Quiz Two is distributed to the group and class is dismissed.

Session III (Effects of Alcohol on Driving)

The class begins with a discussion of the questions on Home Quiz Two.

Some of the historical problems relating to drinking and driving are discussed and illustrated by the showing of a motion picture entitled "A Snort History." At this point, the class should be ready for full-scale discussions of the effects of alcohol on driving and refer to the films, the filmstrips, and the student guide for information.

A "Dial-A-Drink" wheel is distributed to the students. The wheel shows the number of calories in alcohol, effects produced, percent of alcohol in the blood, time for alcohol to enter the blood, time for alcohol to leave the body, minimum waiting period before driving, etc. Use of the wheel is explained and discussion follows.

The instructor distributes Home Quiz Three, and class is dismissed.

Session IV (The Driver — The Good, the Bad, and the Drunken)

Home Quiz Three is discussed and corrected. The characteristics of the good, the bad, and the drunken driver are compared.

The film "Final Factor," which in five vignettes describes how drivers can get into trouble any time they find themselves confronted with the right combination of accident factors, is shown. Another film, "Highball Highway", shows how an "average" driver on an occasional drinking night out takes the road that can lead to trouble. Also available is the film "Motor Mania," a Walt Disney animation.

With the films as background, the group and the instructor list some of the major characteristics of drivers under each of the three columns, i. e., the Good, the Bad, and the Drunken Driver.

Home Quiz Four is distributed and the class is dismissed.

Session V (The Drinker, the Problem Drinker, and the Problem Driver).

At the opening of this session, Home Quiz Four is discussed. A Mid-Course Evaluation Form is completed by the students.

In this session, the class is concerned primarily with the characteristics of the average drinker and how he becomes a problem drinker and then a problem driver. To illustrate the problem, the motion picture "The Social Drinker and the Antisocial Driver" is shown. Also used is the film "David: Profile of a Problem Drinker." In the film, problem drinking is analyzed. Also used is another motion picture on the same subject, "The Secret Love of Sandra Blaine."

The instructor then lists three columns on the chalk board under the headings: (1) The characteristics of a drinker, (2) How a drinker becomes a problem drinker, and (3) How a drinker becomes a problem driver. Information from the class discussion is summarized in each of these columns.

Home Quiz Five is distributed and the class is dismissed.

Session VI (The Drinking Driver and the Law)

Home Quiz Five is discussed with the students.

In this lesson, the class is concerned with the law as it affects a person who may be arrested while under the influence of alcohol. Reference is made to the motor vehicle laws of the Commonwealth of Virginia relating to driving; drinking and driving, and to the meaning of the "implied consent" law. The Driver's Manual of Virginia is used as a special reference.

To illustrate this matter, two motion pictures are shown. The first, "A Day in Court," depicts a day's calendar in traffic court. The other, "One for the Road," is about an ordinary citizen who doesn't consider himself the least bit intoxicated but finds himself facing a jail term because his blood was found to contain 0.15% alcohol after an accident.

At the end of the session, Home Quiz Six is distributed and the class is dismissed.

Session VII (Where to Go For Help)

Home Quiz Six is discussed.

The primary consideration in this session is that the students learn of the agencies in the community where a problem drinker may seek help. Special reference is

made to the personal experiences of the students. Suggested sources of help, e.g. the family physician and Alcoholics Anonymous, are listed on the board. The concern is not only for personal help but to provide information for advice to others who may be in more serious drinking trouble. The film "Curious Habits of Man" may be used here.

Home Quiz Seven is distributed. Students are also given an "Alternative to Drinking and Driving Form", which they are to complete at home and return at the final meeting.

Session VIII (Alternatives to Drinking and Driving)

Home Quiz Seven is discussed.

The final session is a summary of previous classes and culminates in a future personal plan of action — the development of alternatives to previous drinking and driving habits. Students complete a Final Course Evaluation and retake the drinking and driving knowledge test given at the first session.

These papers are handed in and the students are encouraged to openly express their own plans for alternatives to their drinking/driving habits. Comments are also solicited about the class instruction, the material used, and the benefits derived from attendance.

After being informed of the next steps they will take in the ASAP process, the students receive a final "good-luck" and "good-bye" from the instructor. Class is then dismissed for the final time.

Table 1 shows the sequence of use of the audiovisual and supplementary materials used in conducting the NVCC Driver Improvement School.

Table 1
Use of Materials Sequence

Session	Topic	Films	Time in Min.	Filmstrips	Books, Pamphlets, Etc.	Supplementary Instructional Materials
1.	Alcohol and Highway Safety	F-1 or F-2	28 14	FS-1, or FS-3	BP-1 BP-2 BP-3	Pretest Wkbk. Lesson 1 Pre-Arrest Report Form
2.	Effects of Alcohol on Body and Brain	F-5 F-6 F-17	22 22 14	FS-2 FS-4	BP-4 BP-5 BP-7	Wkbk. Lesson 2 Return of Pre- Arrest Report Form
3.	Effects of Alcohol on Driving	F-7	10	-	BP-6	Wkbk. Lesson 3
4.	The Driver — The Good, The Bad, and the Drunken	F-9 F-10	14 12	- -	- -	Wkbk. Lesson 4
5.	The Drinker — The Problem Drinker, the Problem Driver	F-13 F-14 F-15	14 28 28	- - -	- - -	Wkbk. Lesson 5 Mid-Course Evaluation
6.	The Drinking Driver & the Law	F-11 F-12	11 30	- -	- -	Wkbk. Lesson 6
7.	Where To Go For Help	F-16	15	-	-	Wkbk. Lesson 7 Alternatives To Drinking And Driving Form
8.	Alternatives to Drinking	-	-	-	-	Posttest (Same as Pretest) Final Evaluation

Symbol Key

Films*	Filmstrips
F-1 Highway of Agony	FS-1 Alcohol: Or Highway Safety
F-2 Alcohol and Red Flares	FS-2 Alcohol: Fun or Folly
F-5 Verdict at 1:32	FS-3 Alcohol: Your Decision
F-6 Just One	FS-4 Alcohol: Your Blood and Your Brain
F-7 A Snort History	
F-9 Final Factor	Books, Pamphlets, etc.
F-10 Highball Highway	BP-1 Just One For The Road
F-11 One For The Road	BP-2 Alcohol: Or Highway Safety
F-12 Day In Court	BP-3 Alcohol: Fun or Folly
F-13 The Social Drinker and the Anti- social Driver	BP-4 Alcohol: Your Blood and Your Brain
F-14 David: Profile of a Problem Drinker	BP-5 It's Best To Know About Alcohol
F-15 Secret Love of Sandra Blaine	BP-6 Dial-A-Drink Wheel
F-16 Curious Habits of Man	BP-7 Liver Specimen
F-17 Alcohol and Human Body	

*Three additional 16 mm films have been added since this key was developed, and three of the original series have been deleted.

Fairfax County Public School Program

The driver improvement program operated by the Fairfax County Public School System is similar to the NVCC program. The course consists of eight sessions, each of two hours duration, and meets once a week during evenings. The class has a maximum of 15 participants, but occasionally there are fewer students.

The FCPS program uses the same text as the NVCC. The student guide is entitled "Just One For The Road." The course content for each lesson has been previously described. There is some variation in the use of films, filmstrips, and supplementary materials. The curriculum guide (in Table 2) was furnished by the Fairfax County Public Schools.

Table 2

Curriculum Guide for the Fairfax County Public School
Driver Improvement School

Concepts	Behavioral Objectives	Learning Activities
Orientation	Students will understand the goals of the driver improvement schools.	Work Sheet #1
Student Knowledge	Students become aware of entry knowledge.	Pretest
Driving-Drinking Problem	Students will understand a problem exists.	Films: Alcohol & Red Flares Highway of Agony Highball Highway
	Students will be aware of local and national statistics.	Text: Just One For The Road (Pages 1-4)
	Assess personal behavior as it relates to the program.	Transparencies #1-6 ASAP Packet
Absorption, Distribution & Oxidation of Alcoholic Beverage	Students have knowledge of what happens to alcohol in the body from the time it is ingested until it is eliminated.	Work Sheet # 2
		Film Strips: Alcohol Drinking, Driving & Drugs
		Test: Just One For The Road (Pages 5-14)

Table 2 (continued)

Concepts	Behavioral Objectives	Learning Activities
Effects on Body Functions	Students understand how body functions (speech, vision, judgment, coordination, etc.) are impaired by increased amounts of alcohol in the body.	Transparency #14 ASAP Packet Work Sheet #3
Variables	Students can identify: (1) Individual differences which determine the manner and degree with which people are influenced by alcohol, and (2) the conditions which cause the same individual to be affected more at one time than another.	Transparencies #8, 9, 10, & 11
Identify, Predict, Decide and Execute (I.P.D.E.)	Student understands I.P.D.E. Concept.	A Resource Curriculum in Driver and Traffic Safe Education Defensive Driving Matter of Judgment Emergencies in the Makir Final Factor Work Sheet #4
Influence on Driving Performance	Student understands the effects of alcohol on the human functions involved in driving (identify, predict, decide, and execute), and realize that these effects are more likely to occur as the concentration level of alcohol increases. In addition, can explain why these effects are likely to be more pronounced in young people than in adults.	Films: Point Zero Eight Levels of Danger How Much Is Too Much Split Second Pamphlet: The Way To Go
Alternatives to Drinking and Driving	Student should be able to develop for himself guidelines which will make him a safe driver.	Work Sheets # 5, 6, 7 & 8 Films: Sure, Mack, Sure Social Drinker and Antisocial Driver
	Students should experience increased knowledge from entry to departure.	Trigger Films The Decision is Yours Posttest

PURPOSE

Although it is not realistic to expect a single driver improvement course to reform life styles and thereby drinking behavior, one can expect some changes in knowledge to effectuate changes in drinking/driving performance. Combinations of treatment, over a sufficient period of time, might produce desirable behavioral changes, not only in relation to driving, but also in problems with alcohol in general.

The primary purpose of the work reported here was to determine the effectiveness of each of the schools in changing knowledge, attitudes, and driving performance of those individuals who have attended. A secondary purpose was to compare the schools with each other and to conclude if one is performing its function more effectively than the other.

METHODOLOGY

The evaluation of the effectiveness of the Driver Improvement School program is being made along several avenues. (1) Has there been a change, as a result of participation in the class, in the knowledge possessed by the students? Pre- and posttest scores are used in determining this factor. (2) Has there been a change in the students' attitude as a result of the class? Subjective and objective measures of attitudes are to be used in making this determination. (3) Has there been a change in driver performance? The influence on driver performance can be roughly measured from driving records. By comparing accidents, DWI arrests, and convictions, the recidivism of program participants can be studied. (4) What is the comparative effectiveness of the two programs? Post-test scores and performance measures are used in making this determination. For the current report only part of the above are possible.

As noted above the Fairfax ASAP has two driver improvement schools in simultaneous operation. The two programs are similar, but not identical in content and format. One major problem encountered in evaluating them is that identical evaluation instruments are not currently used. Therefore any comparisons between the two programs are tentative at best.

Further, some students are involved only with driver improvement classes while others go through several treatment modalities, either simultaneously or in succession. Ascribing benefits to only one program is a tenuous procedure. The absence of a "no treatment" control group also poses problems in the formulation of definitive statements of benefits.

Knowledge Tests

The driver improvement schools were designed to deal primarily with students who are classified as social or nonproblem drinkers. Some difficulty has been encountered in the identification and the placement of social drinkers into the schools. Occasionally other types of drivers are mistakenly referred. The scores and standard deviations for the various categories of students within each program will be obtained and related to

differences in the classification of these defendants by drinking habits. Use of the DWI recidivism rate will aid in this endeavor.

The first year evaluation of the programs was concerned with the change between pretest and posttest scores on the knowledge test for each of the two programs. Intra-program deviations of pretest and posttest scores of the students were analyzed. An attempt was made to determine whether an increase in knowledge test scores were a result of the educational program or if another factor also influenced test performance. An attempt was made to relate knowledge test scores, attitude test scores, and DWI recidivism rates. Table 3 presents the data array model for the entire analysis as described in this section.

Table 3

Model for Data Analysis

	Knowledge Pretest Score	Knowledge Posttest Score	t Test	Attitude Pretest Score	Attitude Posttest Score	t Test	Recidivism	
							All Arrests	DWI Arrests
All NVCC (After 4th Class)	\bar{X} & S. D.	\bar{X} & S. D.		\bar{X} & S. D.	\bar{X} & S. D.		No./100	No./100
Selected Sample - NVCC Plus Any Other Treatment N = 100	\bar{X} & S. D.	\bar{X} & S. D.		\bar{X} & S. D.	\bar{X} & S. D.		No./100	No./100
Selected Sample NVCC Only N = 100	\bar{X} & S. D.	\bar{X} & S. D.		\bar{X} & S. D.	\bar{X} & S. D.		No./100	No./100
All FCPS	\bar{X} & S. D.	\bar{X} & S. D.		\bar{X} & S. D.	\bar{X} & S. D.		No./100	No./100
Selected Sample - FCPS Plus Any Other Treatment N = 100	\bar{X} & S. D.	\bar{X} & S. D.		\bar{X} & S. D.	\bar{X} & S. D.		No./100	No./100
Selected Sample - FCPS Only = 100	\bar{X} & S. D.	\bar{X} & S. D.		\bar{X} & S. D.	\bar{X} & S. D.		No./100	No./100

The scores for all students within the program include those that were properly placed (social drinkers) and those that were not properly placed (problem drinkers). A sample of specifically selected scores of the participants in driver improvement plus one or more additional treatments and met the Office of Alcohol Countermeasure criteria for problem drinkers is used to show changes of individuals who had a severe drinking/driving problem. A sample of specially selected scores of students who participated only in driver improvement is used to show changes of properly placed individuals.

Attitude Tests

The effectiveness of these schools in terms of changing drinking/driving attitudes is determined from the pre- and posttest scores of the measuring instruments used for this purpose in the programs. The same intra-group comparisons (all students, problem drinkers, and social drinkers) used for the knowledge tests are used for determining attitude changes.

Recidivism

Performance measures, in relation to program effectiveness, is determined through the use of recidivism rates of all arrests (ASAP area only), DWI arrests (ASAP area only), convictions (DMV check statewide), and accidents (State Police statewide). Again intra-program deviations are evaluated.

Program Comparability

After making a determination of changes in knowledge scores, attitude scores, and recidivism rates of the subgroups within each program, it is necessary to determine the comparative effectiveness of the NVCC program with that of the FCPS program. By using the BAC at the time of initial arrest, and knowledge and attitude pretest scores, group comparisons prior to any treatment can be made. If the groups are comparable prior to treatment, the use of knowledge and attitude posttest scores, recidivism rates, accidents, and convictions, can be used to determine if one program is more effective than the other. Table 4 presents the model for this analysis.

Table 4

Model for Data Analysis					
Inter-Group Comparisons					
	Knowledge Pretest Score	Attitude Pretest Score	BAC at Time of Initial Arrest		
NVCC					
FCPS					
t Test					
	Knowledge Posttest Score	Attitude Posttest Score	DWI Recidivism Rate	Convictions Statewide	Accidents Statewide
NVCC					
FCPS					
t Test					

DATA ANALYSIS

The model for the data analysis (Table 3) is considered an optimum method for determining the effectiveness of the total ASAP driver improvement school program and the comparative effectiveness of the two schools. This model was developed to include knowledge, attitude, and performance measures and to use data that should have been collected on each student as he/she progressed through the program from initial police contact to adjudication. All data are theoretically available in the probation office files.

As data collection for the analysis began, it became apparent that this first annual report would be less than complete when based upon the model. Some of the data were nonexistent, some were incorrect, and some, although existing, were so inaccessible as to defeat collection within the time constraints for this report. Locating a particular file was in itself troublesome as the files were not centrally stored. There was a lack of uniformity of contents as well as variability in the recording of identical data in the files.

Knowledge Tests

In the nine classes taught at the Fairfax County Public School, five different scoring techniques were used for the knowledge test. Two classes were recorded as number correct, one as number wrong, two as percent correct, two by letter grade, and two by good, average, and poor. Also the same number of questions was not used for each test administration, thus a conversion of scores to a common format was not possible. Data from these classes were not usable and therefore an evaluation of the school's effectiveness in increasing knowledge could not be carried out. The school is now in the process of establishing a common scoring technique for all classes. Recording number correct has been suggested.

Scores from the first four classes at Northern Virginia Community College are not included in the data base because the program was in its initial design stage. After the fourth class, the same knowledge test was administered to each of the classes and the same scoring technique was used. Data from three additional classes are not included for the following reasons: (1) Classes 9 and 10 were scored in percentages with no indication as to the number of questions, and (2) apparently no member of class 21 completed the course. Only students with both a pretest and posttest score were used for the calculations of means and standard deviations.

The subgroup of identified inappropriate referrals included only 15 cases selected from approximately 25% of the total (from classes 5 through 12, and 35, and 42) of those who participated in the program. Data from classes 13 through 34 and 36 through 41 were not obtained due to time limitations. The subgroup entitled selected sample includes the scores of every ninth student who participated in the program.

Table 5 presents the means, standard deviations, and statistical significance of obtained scores for NVCC participants. The pretest scores for each of the three

subgroups (all students, identified inappropriate referrals, and a sample of appropriate referrals), are not significantly different from each other. The posttest scores for each of these three subgroups also are not significantly different from each other. Regardless of the adequacy of placement of the students, the mean pretest score was the same for all three groups. Also the mean posttest score was alike for each of the groups.

Table 5

Significance of Mean Scores

	Knowledge Pretest Scores		Knowledge Posttest Scores		t Test
	\bar{X}	S.D.	\bar{X}	S.D.	
All NVCC (Classes 5-41) N = 466	25.5	3.18	29.0	1.39	21.79*
Identified Inappropriate Referrals N = 15	24.7	3.24	28.8	1.32	3.88*
Selected Sample (Every 9th S) N = 50	25.0	2.70	28.7	1.51	8.45*

*Significant beyond the .01 level.

There was a statistically significant change in score from the pretest administration to the posttest administration. Class members answered more questions correctly after having completed the NVCC school. The reason for this positive change in score is not readily discernible. The question must be raised whether the change was due to the instruction or to the review of the pretest upon its completion.

Attitude Tests

The effectiveness of the schools in terms of changing drinking/driving attitudes cannot be statistically nor objectively determined at this time due to the lack of a valid and scientific instrument for this purpose. Comments from the instructors regarding a change in attitudes do exist but are not amenable to statistical analysis. Each student is required to formulate a future personal plan of action, i.e. the development of

alternatives to his previous drinking/driving habits. These verbal and written comments do not lend themselves to quantification for analysis. Also one might question the validity of some of these plans, (e.g. I'll never drink again, but if I do I won't drive), in light of their future court appearance. Sincerity is difficult to determine, and once determined impossible to adequately measure.

Recidivism

One measure of program effectiveness is whether a graduate has changed his driving performance to reflect the new knowledge gained through his program participation. All students are members of the class because their driving maneuvers attracted the attention of a law enforcement officer. They are participating in the program because they were cited for DWI and chose the rehabilitation alternative.

Table 6 presents the number of individuals who were cited for a driving offense after having attended the NVCC school. Sample size for the inappropriate referrals is too small for valid comparisons of results. The time span since class completion is short and therefore the expected number of repeaters is few in all subgroups. A recidivist rate 5.15 DWI arrests per 100 students has no meaning without a control or no treatment comparison group. Other than presenting the data, nothing additional can be accomplished at this time.

Table 6

Rate of Recidivism

	DWI Arrests	
	Number	Rate/100 S's
All NVCC (Classes 5-41) N = 466	24	5.15
Identified Inappropriate Referrals N = 15	0	0
Selected Sample (Every 9th S) N = 50	0	0

Program Comparability

Due to the lack of data, it is not possible to determine if the students assigned to each of the treatment programs were similar prior to attending classes. The comparative effectiveness of the NVCC program with the FCPS program cannot be determined at this time due to the lack of data.

For each of the key analytic studies the Department of Transportation requires specific information. The requirements for the driver improvement school evaluation study is contained in the Appendix. The style and format for this table is set forth in the January 1973 Guidelines for ASAP Evaluation.

CONCLUSIONS

In view of data needs and the availability of such data, it appears that an overly ambitious evaluation model was designed. Knowledge gained in the preparation of this report should be beneficial in setting up a data collection mechanism so that this same model of evaluation can be used in subsequent annual reports.

At this writing an objective evaluation of attitudes and recidivism cannot be carried out for either program. Comparisons between the NVCC program and the FCPS program cannot be completed, nor can an evaluation of the FCPS knowledge testing, due to data limitations.

Students who completed the NVCC course had a statistically significant increase in knowledge score. In light of the fact that instructors reviewed the pretest after it had been scored, we cannot ascribe all of this increase to the course content itself.

RECOMMENDATIONS

The primary knowledge test in use is of the true-false type and consists of 30 questions. This type of test does not adequately control for guessing. A knowledge test which uses multiple choice questions having four choices as answers and with each choice having an equal probability of being selected is recommended. A pool of considerably more than 30 questions should be developed for use. At the end of a specified time (6 to 12 months) or when a specified number of defendants (500-1,000) have been tested, this test and its component questions should be subjected to an item analysis. The evaluation team is currently developing a knowledge test for use by the schools.

After a student has been initially tested with any instrument which is used as both the pre- and posttest, he should not have the advantage of a review of that test. This review defeats the purpose of a posttest being used to measure the benefits of an instructional program.

As an addition to the instructor's subjective assessment of a student's attitude and the development by the defendant of a verbal or written alternative plan to drinking/driving, an objective evaluation of his pre- and post-course driving attitudes is desirable. The checklist currently used by the instructors should also be redesigned to indicate a more complete attitude assessment. It also would be advantageous if all instructors could use a common definition of those factors which would be rated. There are several published standardized tests of attitudes in relation to driving and to drinking which could be purchased for use. Among these are: (1) the Driver Attitude Survey, (2) the Manson Evaluation, (3) the Alcadd Test, and (4) the Siebrecht Scale. Others may be available

and those suggested may not be completely adequate. The decision for purchase and use of a specific test rests with project management in consultation with the counter-measure coordinators, school personnel, and the evaluators.

Each defendant's file in the probation office should contain standardized information and it should be recorded in an identical manner. It would seem imperative that the information be readily available. One way to accomplish this would be to have a summary of data sheet (see Figure 1) placed in the front of each folder. Another way would be to incorporate an alphabetical central data file into the data storage and retrieval mechanism. A card would have to be designed to accommodate all needed data. File systems and card design assistance are commercially available.

In summary, the three most critical changes needed at this time are: (1) A redesigned knowledge test, (2) the addition of an objective attitude measure, and (3) the complete and rapid accessibility of data.

Figure 1

SUMMARY OF INFORMATION -- DRIVER IMPROVEMENT SCHOOLS

NAME _____ OASDI NO. _____
Last First Middle

ADDRESS _____ BIRTH DATE _____
Street & Number

_____ AGE _____
City State

SEX _____

DIS PROGRAM TO WHICH ASSIGNED _____

INSTRUCTOR'S NAME _____ CLASS NO. _____

DATE ENTERED _____ DATE COMPLETED _____

BAC & DATE INITIAL DWI ARREST _____

BAC & DATE SUBSEQUENT DWI ARRESTS _____

SUBSEQUENT OFFENSE & DATE OF OTHER TRAFFIC RELATED CONVICTIONS

ACCIDENTS DATE ACCIDENTS DATE

DIS KNOWLEDGE SCORES

DIS ATTITUDES SCORES

PRE _____ POST _____ PRE _____ POST _____

APPENDIX

DRIVER IMPROVEMENT SCHOOL SUMMARY

1. Programs

Northern Virginia Community College (NVCC)
Fairfax County Public School (FCPS)

2. Length of Course

No. of Sessions 8
No. Hrs./Session 2

3. Size of Course

No. Students/Course 15 Max.
No. Courses/Yr. NVCC 41
No. Courses/Yr. FCPS 9

4. Cost of Program	NVCC	FCPS	Total
Cost/Course			
Instructor Fee	<u>\$20/Hr.</u>	<u>\$20/Hr.</u>	
Student Cost	<u>\$25</u>	<u>\$25</u>	
Sponsorship	<u>ASAP</u>	<u>ASAP</u>	
5. Total Students to Date	<u>589 + 60</u>	<u>137</u>	<u>726 + 60</u>
Class No.	<u>(5-41) (1-4)</u>	<u>(1-9)</u>	
6. % Self-Referral For Additional Treatment	<u>N/A</u>	<u>N/A</u>	<u>2.3%</u>

7. Distribution by Age

	% Total
16-18	<u>2</u>
19-24	<u>17</u>
25-29)	
30-34)	<u>29</u>
35-39)	
40-44)	<u>28.5</u>

7. Distribution by Age (continued)

	% Total
45-49 } 50-54 }	<u>16</u>
55-59 } 60-64 }	<u>6.5</u>
65 & Over	<u>1</u>

8. Distribution by Drinking Classification

	Number	% Total
Problem Drinkers	<u>0</u>	<u>0</u>
Nonproblem	<u>786</u>	<u>100%*</u>
Other	<u>0</u>	<u>0</u>

9. Distribution by Sex

	% Male	% Female
Whites	<u>85.0</u>	<u>10.0</u>
Blacks	<u>4.2</u>	<u>0.5</u>
Other	<u>0.3</u>	<u>0.</u>

Under item 7 the percentages of participants in driver improvement school programs are derived from the data cross tabs of the first 405 individuals in the program. The data for all 786 participants were not readily available from the files, and it was assumed that the percentages remained constant for the entire year. Data percentages for item 9 were derived from the cross tabs of the first 405 defendants and again were assumed to remain constant for the total first year program.

*The driver improvement schools in the Fairfax ASAP were designed only for those defendants who are classified by the probation officers as nonproblem drinkers.