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DETERMINANTS OF POLICE OFFICERS' DUI ACTIVITY

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16. Abstract Fairfax County, Virginia Police were surveyed before attending an Alcohol Safety Action Project (ASAP) police orientation and again six months later. The purpose of the study was twofold. The first goal was to establish whether relationships exist between the personal characteristics of police officers, their knowledge of and attitudes toward alcohol and driving and their involvement in DUI patrol and arrest. The second goal was to determine what, if any, effect an ASAP orientation for police officers would have on their (1) knowledge of alcohol and driving; (2) habits and attitudes toward drinking; (3) attitudes toward drinking and driving; and (4) utilization of alcohol testing equipment. The study provides descriptive material concerning officers' attitudes toward drinking alcoholic beverages, their knowledge about alcohol and their perception of the ASAP program. Among those variables surveyed prior to the orientation, only one showed strong relationship with other variables. This variable, DUI activity, was related to knowledge of alcohol and driving; attitudes toward drinking, age and years as a police officer and the number of serious or fatal alcohol related accidents the officer had handled. In the post orientation survey it appeared that officers' overall understanding of the ASAP program and their confidence in their decisions concerning whether to stop, test and/or arrest a DUI suspect increased. Less was discovered about relationships among variables than was anticipated, suggesting the need for further clarity in identification of variables. 64 Pages plus three Appendices.					
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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

1. In U.S.A. use metric. For other exact conversions and more detailed tables, see GBS News, Publ. 256, Units of Weights and Measures, Price 52.25, 140 (including P.C. 1, 10, 20).

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

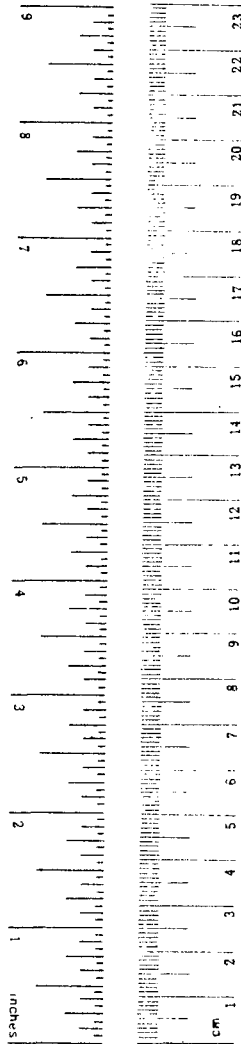
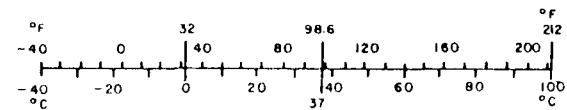


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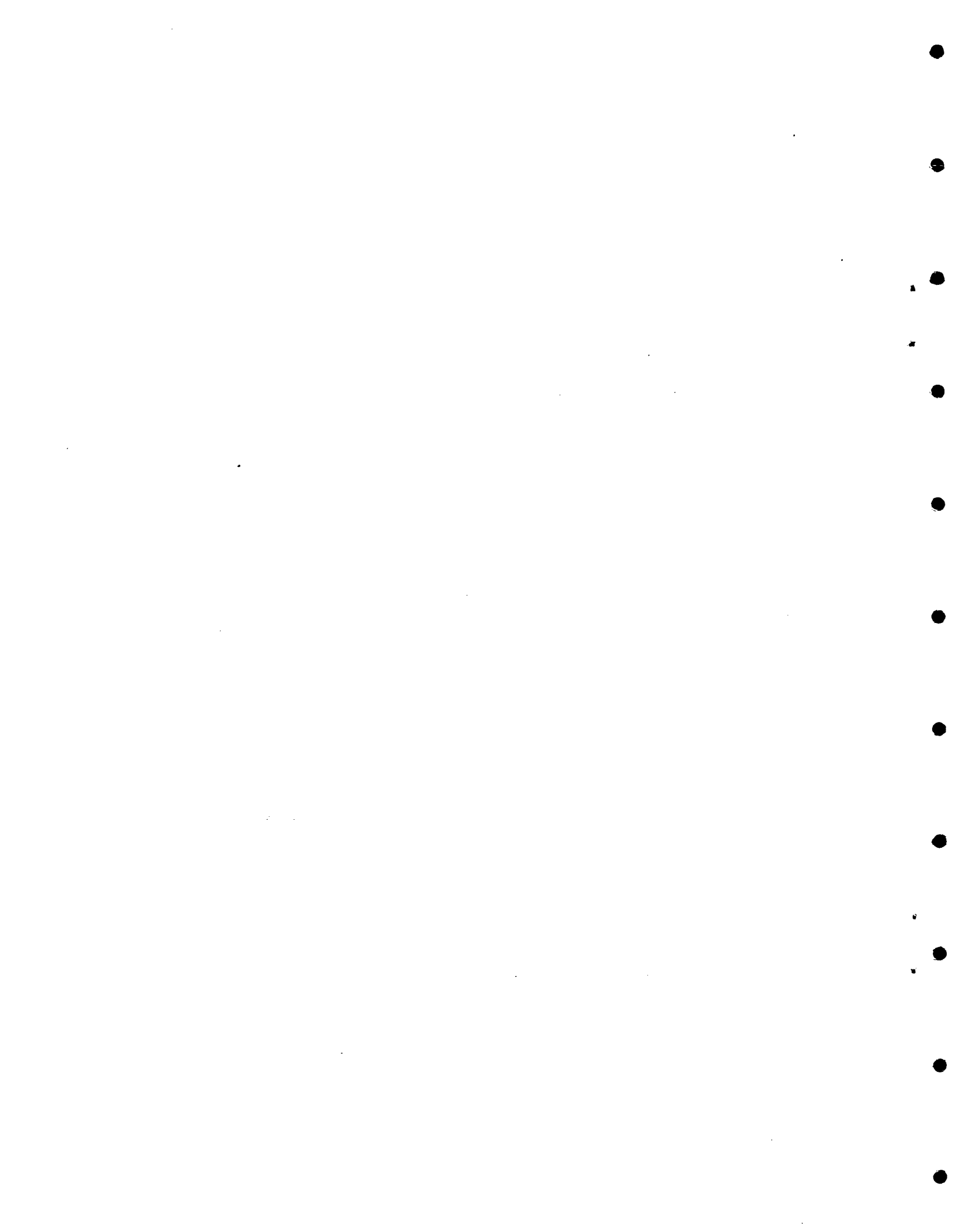
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I. INTRODUCTION

BACKGROUND

The Fairfax Alcohol Safety Action Project (ASAP) was initiated in January, 1972. Its formation was a result of the U.S. Department of Transportation's desire to establish a series of projects to demonstrate whether systematic approaches aimed at reducing the incidence of drinking and driving and alcohol-related crashes were feasible and effective. The methods were twofold: channeling DUI offenders into education and/or rehabilitation programs; and deterring drinking and driving through public information countermeasures.

The Fairfax Project encompasses the activities of state and local law enforcement agencies operating in the cities of Fairfax, Falls Church, the towns of Herndon and Vienna, and the County of Fairfax. Since the law enforcement aspect is the first step toward ASAP's objectives, the officers who compose the ASAP patrols present a proper starting point from which to examine ASAP operations.

Various measures have been developed to improve the efficiency of law enforcement agencies in handling the driving under the influence (DUI) offender. These include special training for officers in the recognition and apprehension of the DUI offender, techniques for establishing evidence, proper arrest procedures and subsequent court testimony. The training is intended to assure that the DUI offender is identified and convicted so that steps may be initiated to control his drinking-driving behavior.

OBJECTIVES OF THE STUDY

The objectives of this study are to determine: 1) the relationship between the personal characteristics, knowledge, and attitudes of officers and their involvement in DUI patrol and arrest, and 2) the impact of the Fairfax ASAP police orientation on officers' knowledge, attitudes, and involvement in DUI patrol and arrest.

To fulfill these objectives, the study attempted to obtain data on patrol officers' knowledge and attitudes about the ASAP program; about operational procedures, including preliminary breath testing equipment, handcuffing and utilization of testing facilities; and about the drinking-driving problem. Data about basic demographic characteristics and personal drinking habits of patrol officers; and patrol officers' level of DUI arrests were also collected.

REVIEW OF THE LITERATURE ^{1/}

The attitudes and behavior of the police have not been for whatever reasons, as widely studied as those of other groups in our society. However, James Q. Wilson, has defined characteristics of police behavior in eight communities. Wilson describes three organizational styles -- watchman, legalistic, and service -- that he feels impact upon the behavior of officers in organizations. Throughout

^{1/} This section was written by Joyce Connors

Wilson's study is the awareness that the police officer with the lowest rank is simultaneously the individual within the organization with the greatest degree of discretion and the most frequent public contact. ^{2/}

Wilson believes that the judgment and reaction to any given situation by an officer is based upon a number of variables. The officer is called upon both to enforce the law and to maintain order, and his response is evoked by either police or citizen action. Wilson describes the police officer as feeling unsupported by police officials, as being distrustful of those outside the organization, and as being concerned with "minding his own business" and following procedures, and as not "sticking out his neck" -- all relatively "safe" responses where behavior is undefined or where following the book is simply not possible. Wilson also notes that police officers believe citizens to be hostile towards police. The risk of danger, real and imagined, leads the officer to feel apprehensive, and this apprehension is communicated to the citizen he encounters. To the citizen, the officer appears unnecessarily "edgy", and a cycle is set up for the escalation of misunderstanding between police and citizenry.

This interaction between police and civilian is further contaminated because the officer is so frequently of working-class origin. Wilson sees the police officer as having typically working-class concerns: preoccupation with self-respect, with proving masculinity, with not taking "crap", and with not being taken in.

While it probably is not practical to measure the attitudes of police toward the citizens or suspects with whom they have daily encounters, it may be possible to obtain some crude measure of how the police view and act toward certain groups of citizens -- old and young, male and female, affluent and less affluent, Black and White. It may also be possible to link these attitudes with such demographic data as rural-urban upbringing, class origin, ethnic background, and religious or non-religious beliefs -- all factors which Cahalan feels have an effect upon the drinking patterns and attitudes of individuals. ^{3/} Furthermore, it may be possible to look at some police attitudes toward drinking and drunk driving (DUI). One may speculate further that police attitudes and behavior toward DUI suspects correlate with the officers' own attitudes toward alcohol and their own patterns of alcohol consumption. Given Milton Roakeach's assumption in Beliefs, Attitudes, and Values (San Francisco: Jossey-Bass, 1968) that beliefs, attitudes, and values form a continuum, it may be surmised that all three are inextricably interwoven with behavior and that attitudes and behavior are interactive in a manner typical of all systems.

Bozza, in "Motivations Guiding Policemen in the Arrest Process", attempted to determine the relationship between demographic variables characterizing police officers and incidence of arrest or arrest procedures. Bozza's study concludes that younger officers of the Costa Mesa Police Department with higher education levels make more arrests than do older officers with less education. ^{4/} No relationships were found between officers' perceived promotion opportunities or

^{2/} James Q. Wilson, Varieties of Police Behavior: The Management of Law and Order in Eight Communities, New York: Atheneum, 1973.

^{3/} Don Cahalan, Problem Drinkers, San Francisco: Jossey-Bass, Inc. 1970

^{4/} C.M. Bozza, "Motivations Guiding Police in the Arrest Process", Journal of Police Science and Administration, Vol. 1, #4, Dec. 1973, 468-76.

tolerance, as measured by the conventionalism subscale of the authoritative personality (F) scale, and the officers' arrest rate. Because the study employs such a small sample and is narrowly focused, it is not possible to generalize the findings to a larger population.

The Center for Environment and Man of Hartford, Connecticut, conducts an annual study for the Fairfax ASAP on the involvement of police patrols in DUI activities in Fairfax County. While this provides useful patrol data, no attempt was made to obtain other descriptive data from police that might be used to assess police drinking patterns.

One study that attempted to link police characteristics or attitudes and incidence of DUI arrests, 5/ by Arthur Young and Company, involved visits to 16 ASAP sites where in-depth, open-ended interviews were conducted. The intent was to determine factors that influenced an officer's decision to stop and arrest drivers for DUI. It was hoped that such data could result in actions that would facilitate apprehensions and arrests. This study explored drinking patterns of officers, their attitudes toward drunk drivers and the effect of severe DUI penalties upon their decision to arrest a suspect.

The study leaves some unanswered questions. Although over 80 percent of officers questioned, and over 95 percent of ASAP officers, reported that their personal drinking habits had no effect upon their patrol activity with respect to DUI offenders, over 50 percent of both groups felt that drinking patterns of other officers did influence the decision whether to make an arrest. Specifically, the officers thought that officers who were moderate to heavy drinkers were more lenient toward drunk drivers. The authors state that "it would appear that some of the officers were not entirely candid in their answers." 6/

Findings from the Arthur Young and Company study indicate that officers believe exposure to drunk drivers while on patrol leads to stricter enforcement of DUI laws. Officers who elect ASAP duty have a negative attitude toward drunk drivers. Those who do not work ASAP patrols express less negative feelings, perhaps because non-ASAP officers are less heavily exposed or less aware of the problems posed by drunk drivers.

It is difficult to obtain knowledge about an individual officers' drinking or his attitudes toward drinking and driving. Consequently, the Young study makes no specific recommendations in these areas. However, findings indicate that officer training did change attitudes, increased officers' knowledge, and increased their confidence in their decisions. The study also indicates that

5/ "Factors Influencing Alcohol Safety Action Project Police Officers DUI Arrests", U.S. D.O.T. National Highway Traffic Safety Administration, Contract # DOT-HS-123-3-774, June, 1974.

6/ Ibid, Page 29.

a number of outside influences such as driver behavior play a significant role in the officers' decisions to arrest or not arrest a DUI suspect. Wilson's observation about the extent to which police are called upon to exercise discretion and independent judgment in the arrest process seems pertinent. 7/

VARIABLES INFLUENCING DUI ARRESTS

Many variables are believed to influence an officer's decision to arrest a suspect for DUI, including knowledge of alcohol, DUI laws and procedures, personality traits, demographic characteristics, personal drinking patterns and attitudes toward drinking, and attitudes toward suspects. Figure 1 (page 5) depicts some of the variables that could influence DUI patrol activity. The conceptual model of patrol activity shown in Figure 1 indicates officers' decision concerning:

1. Types of driving behavior that alert an officer to a possible DUI;
2. Factors that influence the officer's decision to stop a driver;
3. Who is charged and who is released; and
4. Who receives a blood or breath test and who does not.

ASAP POLICE ORIENTATION

The Fairfax ASAP sponsored an eight-hour police orientation in September, 1975. The primary objectives of the orientation were:

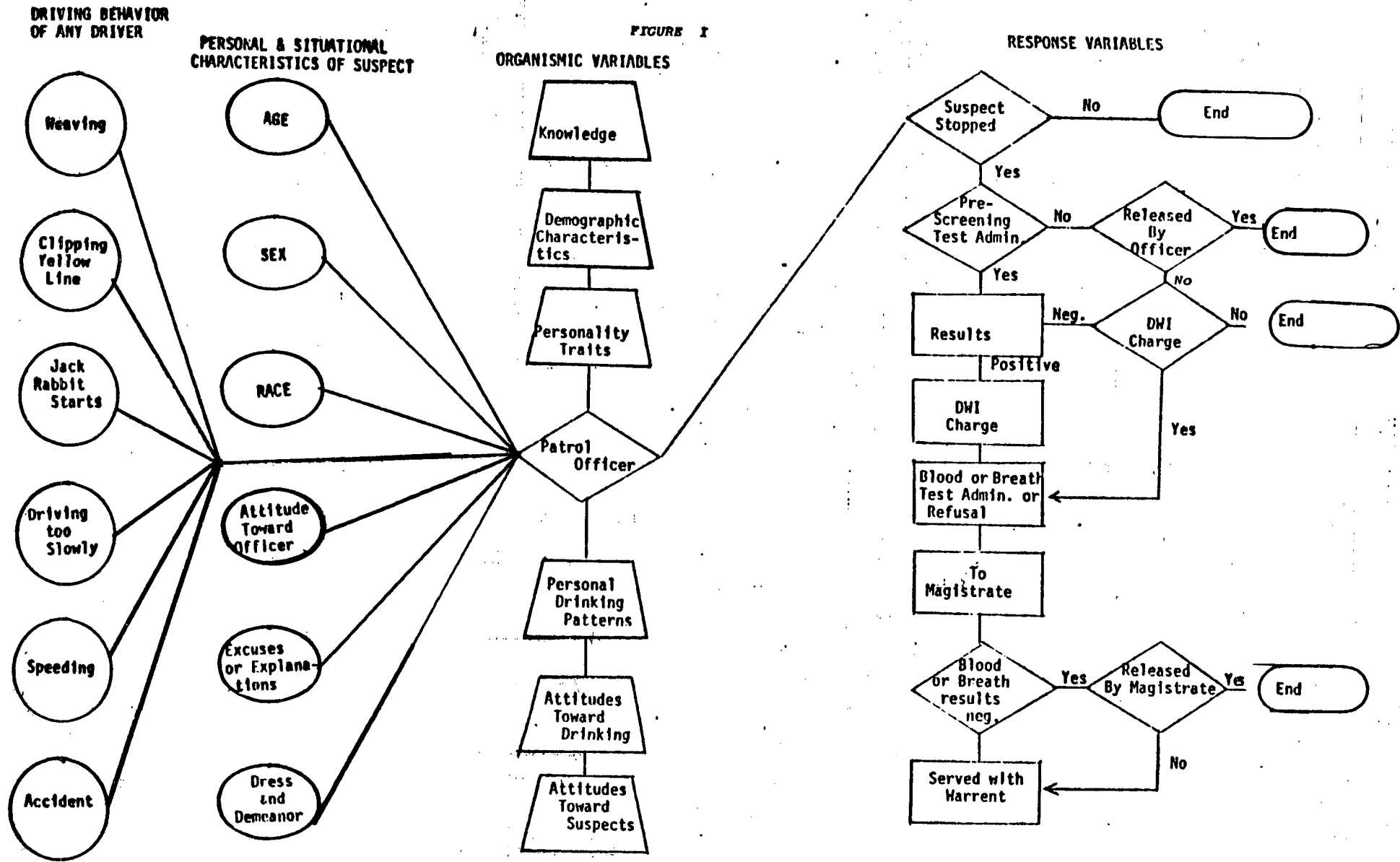
1. to advise officers of DUI arrest procedures;
2. to explain the results of the ASAP program to date;
3. to increase officers' knowledge of the DUI problem; and
4. to familiarize officers with the process through which a DUI offender is referred by the courts to ASAP, diagnosed and assigned to treatment and/or education programs within the community, and monitored by the ASAP probation office.

Officers were selected to attend the orientation if they had not attended an earlier orientation held in 1972. While the majority of the officers attending the orientation had completed their police academy training, a few were still enrolled in the academy or were police cadets who had not yet entered the academy.

Officers attended the orientation in groups of 20 to 40 officers. The program consisted of presentations by representatives of various components of the Fairfax ASAP. These included the Fairfax ASAP diagnostic and evaluation unit and probation office, alcohol treatment agencies within the community, the Fairfax County Police Safety Division and the Commonwealth Attorney's office. The agenda for the orientation can be found in Appendix A.

7/ James Q. Wilson, in Varieties of Police Behavior: The Management of Law and Order in Eight Communities (New York: Atheneum, 1973).

FIGURE 1



II. SCOPE AND METHOD

SCOPE OF THE STUDY

The first phase of this exploratory study examines whether officer characteristics, attitudes toward drinking, and knowledge about alcohol and driving influenced DUI activities. It was hoped that this phase of the investigation would generate specific hypotheses that could be tested at a later date. The second phase examines the possible influence of the Fairfax police orientation on the knowledge, attitudes and DUI activities of officers through comparison of officer responses before and after the orientation.

DATA COLLECTION PROCEDURES

A 102 item survey questionnaire was administered to 212 officers attending the police orientation in the Fall of 1975. These officers were also asked to fill out a shortened follow-up version of the original questionnaire in the Spring of 1976, six months after the orientation. In surveys of this type the first administration is often referred to as Wave I, the second as Wave II. Approximately two-thirds or 143 of the 212 Wave I respondents also completed an instrument during Wave II.

The Wave I instruments were administered during the first hour of the police orientation. Wave II questionnaires were distributed to the individual police substations and officers were asked to complete them during shift changes. The completed questionnaires were then picked up from the substations.

In surveys that attempt to measure the effects of some experimental manipulation, such as a police orientation, over time, an effort is usually made to identify the individual respondents either by name or code number so that differences between each individual's pretest and posttest responses can be calculated and change determined. This type of personal identification is often hampered by the natural reluctance of respondents to expose themselves if, for some reason, guarantees of anonymity or confidentiality are not observed and individual respondents are identified in some way. Fear of identification is particularly strong in surveys involving police who are usually suspicious of outsiders and are sensitive to potential criticism from superiors, politicians or the public. Concern over dissemination of survey results can also lead to less than candid responses to many items. Even where individual officers are not identified, police as a group are often unwilling to give candid answers on potentially controversial subjects because they feel the information will somehow be used against them.

ANALYSIS

The analysis was conducted in two stages. The first focused on the results of the First Wave and searched for relationships between a series of independent variables and a small number of dependent variables. Efforts were made to determine both bivariate relationships - relationships between one independent and one dependent variable, and multivariate relationships - relationships between more than two variables. All 212 officers who completed first wave questionnaires were subject to analysis.

The second phase consisted of efforts to compare results from the first and second wave. This phase of the analysis was complicated by the inability to identify exactly which of the first wave officers actually completed a second wave questionnaire. Several alternative approaches to the problem of how to obtain comparisons were explored. The first was a comparison of the 143 respondents in the second survey with the 212 respondents in the first. This was felt less than satisfactory because the unequal number of persons biased the crosstabular comparisons.

The second alternative was to individually match officers through use of a number of personal and background characteristics that were requested on both questionnaires. The main problem with this approach was the enormous amount of computer programming time required to conduct a precision match, and the lack of certainty about whether there was significant variation in personal characteristics to accurately identify each officer.

The final alternative, and the one chosen, was to randomly eliminate one-third of the first wave respondents and to compare this group with those in Wave I. Besides simplicity, the main argument for the latter approach is that in pretest and posttest comparisons the primary interest is group change rather than individual change and as long as groups can be shown to come from the same population the findings will also be the same. In the second phase 143 second wave respondents were compared to 143 randomly selected officers from the first wave.

INSTRUMENT DEVELOPMENT

A questionnaire was designed to collect data and to answer questions posed by police administrators. Items in the questionnaire were drawn from existing attitude scales, Bureau of the Census questions, data about drinking behaviors, prior studies of problem drinking patterns, questions used in previous studies of problem drinking patterns, and questions used in previous studies of the Fairfax ASAP.

Demographic data requested included age, sex, race, and geographical characteristics of the area in which the officer grew up and currently resided. Bureau of the Census formats were used whenever possible to maximize consistency of data. A number of questions concerned the respondent's drinking patterns including when and where they drank, how frequently they drank, and how much they drank. Officers were also asked to provide information about

the drinking habits of peers and supervisors. The age at which an individual took his first drink and recall of that event were included because these were thought to be useful predictors of problem drinking. ^{8/}

A modified five item aggression or F scale was included to assess officers' attitudes toward authority. ^{9/} In addition to the aggression scale, one item was included to measure the officers' punitiveness toward DUI offenders. This item asked the officers to indicate which of several adverse techniques might best help problem drinkers overcome their difficulties. All of the suggested techniques ranged across a scale from moderately to severely punitive with an option to specify additional techniques not listed.

Officer attitudes toward both drinking and DUI suspects were also obtained. ^{10/} Respondents were asked to indicate the types of suspects they would be most likely to arrest or release under varying circumstances. Age, sex, demeanor of suspect, external influences, and distance of suspect from home were thought to influence police officers' decisions. Questions dealing with hypothetical arrest situations were added to encourage candid responses. Officers were also asked to indicate both the tactics suspected drunk drivers used to avoid being arrested, and the tactics they used to avoid having to arrest a suspected drunk driver.

The first questionnaire was pre-tested on a sample of 50 officers stratified according to arrest rates. A number of items were subsequently deleted or reworded to increase clarity and to allow for sufficient variation to distinguish between levels of arrest activity. The final form contained 102 fixed response items, a 20 item drinking attitude scale and a five item aggression scale.

The instrument used in the second wave contained only 65 of the 102 items on the original version. The six items on aggression that came at the end of the drinking scale in the first wave were eliminated in the second wave instrument. Reduction in the number of items was made possible by the elimination of those questions that were not found useful in the initial analysis. All items used in the second wave were duplicates of those used in the first. A copy of the first and second wave instruments are located in Appendix B.

DEPENDENT VARIABLES

Three major dependent or criterion variables were chosen for analysis. It was hoped that differences in a dependent variable would be explained by the independent variables, thus providing a clearer picture of the DUI arrest process. The three dependent variables used in this phase of the analysis were 1) the level of DUI activity as measured by self-reported contacts and arrests over the last six months; 2) the types of equipment officers used; and 3) the reasons an officer gave for stopping a suspect.

^{8/} Don Cahalan Problem Drinkers, San Francisco Jossey-Bass, Inc. 1970

^{9/} John P. Robinson-Phillip R. Shaver, Measures of Psychological Attitudes, Ann Arbor: Institute for Social Research, 1973, pp. 346-349.

^{10/} A twenty item Likert scale was constructed by Dr. Sidney Clearfield, then Assistant Dean, School of Social Work, Virginia Commonwealth University in April 1974, to measure attitudes toward drinking.

INDEPENDENT VARIABLES

A series of more than twenty items were chosen as independent variables. The basis for selection was the likelihood that a variable might have an impact on the dependent variable. Not every independent variable was used with each dependent variable. A list of the independent variables is shown below.

Figure 2

INDEPENDENT VARIABLES USED IN THE ANALYSIS

1. The types of preliminary testing equipment available in the substation to which an officer was assigned.
2. Age.
3. Number of years of formal education.
4. Number of years of specialized training.
5. Number of years as a police officer.
6. What an officer thought would happen to drunk drivers who attended ASAP.
7. What an officer thought would happen to drunk drivers who did not attend ASAP.
8. Whether an officer knows he will test a suspect before he has face to face contact with him.
9. Number of serious or fatal DUI accidents handled.
10. Extensiveness of information received about DUI laws and procedures.
11. What an officer feels his supervisor wants with respect to level of DUI arrests.
12. How long it took an officer to reach a testing facility.
13. How long it took an officer to complete the DUI arrest process.

Because this is an exploratory study, some of the dependent variables were also used as independent variables.

III. FINDINGS OF WAVE I

INTRODUCTION

The findings are presented in three sections. The first is descriptive and summarizes responses to the questionnaire. This section also reviews data from eleven constructed scales. The second presents bivariate relationships between variables used in the study. That section examines the impact of a series of independent variables on a small number of dependent variables related to the arrest activities of an officer. Next, the impact of mediating variables such as knowledge of alcohol and driving, attitudes toward drinking, police district substations, discretionary behavior and years as a police officer were determined, since it was felt that these might influence the strength and nature of the relationships between the independent and dependent variables.

DESCRIPTIVE FINDINGS

The descriptive section is divided into five parts: 1) characteristics of respondents; 2) police experience; 3) drinking habits, attitudes, knowledge and perceived limits; 4) feelings about ASAP; and 5) DUI apprehension activities.

Characteristics of Respondents

There were sixteen items on the personal background characteristics of the respondents. In general, the officers who participated in the survey were young,

white, and male. All but seven percent were male and all but five percent were white. They ranged in age from nineteen to forty-six with a median age of twenty-five and one-half years. Slightly less than half the respondents had a high school education or one year of college. A large proportion, nearly twenty percent, had four or more years of college education.

More than half of the officers identified themselves as Protestants and slightly less than a third said they were Catholic. No persons of Jewish background were in the sample. All the remainder fell in the "other" category. Among those who identified themselves as Protestants, a quarter were Southern Baptists, a quarter were Methodists and the remainder listed themselves as "other." The ethnic background of the police officers was primarily Northern European. About 25 percent identified themselves as being of British, Scottish or Welsh ancestry. The next most prevalent group was officers of German extraction who represented approximately 21 percent. The next two most prevalent groups, representing seventeen and thirteen percent respectively, were Irish and "other European."

Slightly less than one-half of the officers stated that they had grown up in Virginia. The next most prevalent areas were Middle-Atlantic and South-Atlantic States. Some fifteen percent grew up in other parts of the country. When asked to categorize the size of the community they grew up in, nearly 60 percent indicated a population between 2,500 and 50,000. The proportion in areas of under 2,500, areas of 50,000 to 250,000, and one-quarter to one-half million were approximately equal.

The typical officer in this survey was a 25 year old white, Protestant male with one year of college. He was raised in a small to medium size area in Virginia in a family of Northern European descent. This group of police officers was somewhat younger than the average age of the county police force and was more sexually and racially integrated than the total force.

Police Experience

The officers surveyed averaged slightly less than three years as a police officer. This made them relatively inexperienced compared to other members of the force who averaged more than four years of experience. About one-quarter of the officers surveyed had a year or less of experience, while only ten percent had ten or more years. Most of the officers had had some specialized training. One-quarter had two years and about one-third had three or more. An overwhelming proportion wanted to continue as police officers and a large proportion hoped to achieve the rank of Captain or Chief. These aspirations, coupled with the limited probability that the vast majority would reach these ranks, probably indicates the general inexperience of the group. About 30 percent of the officers had not handled an accident involving serious injuries or fatalities where DUI was suspected in the last twelve months. Another third had handled between one and three in the past year, and the remaining third had handled four or more.

Drinking Behavior, Knowledge and Attitudes

Since the primary purpose of the study was to examine the arresting behavior of police officers in Fairfax County with respect to DUI, there was considerable interest in drinking behavior, drinking knowledge and drinking attitudes of the officers. It was felt that an individual officer's attitudes towards drinking and his personal drinking habits would influence both patrol activity and his willingness to make DUI arrests. To obtain this data, nearly twenty questions were included on the individual officer's drinking habits. The items concerned both the officer's own

Two final questions were directed toward whether officers would seriously consider not driving home after having been drinking, and the reasons they would not drive. Slightly more than 80 percent indicated they would consider not driving home. The most important reason given for not doing so was that drinking and driving do not mix. The next most important reasons given were that police should set a good example or that the officer was feeling high and uncoordinated.

It was felt that questions on self-reported behavior were not sufficient for the study, and a series of items was included about the police officer's knowledge of alcohol and driving and their attitudes toward drinking.

A knowledge scale was constructed from five items in the questionnaire. Four of these addressed specific information such as "when alcohol is consumed and absorbed faster than it is used up," and one item asked the officers to define the meaning of under the influence. Close to 93 percent of the officers correctly answered the question on alcohol consumption and the question on the best way to remove alcohol from the bloodstream correctly. A slightly smaller percentage - 90 percent - knew the presumptive level of intoxication in Virginia. This was surprising. Considerable variation was found in the question on the point at which the normal driver becomes seriously impaired. The correct answer for this question was a BAC of .05 and only 40 percent of the sample answered this item correctly. A large number, approximately 40 percent, felt that .10 was the level at which a normal driver becomes seriously impaired. This is not the case, since a normal driver becomes seriously impaired at levels significantly below those required for legal intoxication. The final knowledge item concerned a written definition of DUI. To be correct, an answer had to state that DUI applied to driving under the influence of either alcohol or drugs. One-third of the officers mentioned both. One-half left out any mention of drugs while one-sixth did not mention either alcohol or drugs.

These five questions were then added together to form a knowledge scale shown in Table 1. The development of the scale is discussed in Appendix C.

TABLE 1
KNOWLEDGE OF ALCOHOL AND DRINKING

	Number	Percent
LOW KNOWLEDGE	45	22.2
MODERATE KNOWLEDGE	94	46.3
HIGH KNOWLEDGE	64	31.5
	<u>209</u>	<u>100.0 (N=209)</u>

The table indicates a relatively even distribution. Approximately two-fifths of the respondents scored high, a fifth scored low, and the remainder fell somewhere in between. Pearson correlations indicated that there was a strong relationship between the scores on the individual items and the scores on the total scale.

The next area concerned the attitudes of police toward drinking. This was measured through a Likert scale that contained twenty statements about drinking that were ranked on a continuum from strongly agree to strongly disagree. Individual items

in a scale of this type are less important than the overall distribution and the extent to which individual items are related to the overall score. The distribution of this scale formed almost a perfect "Bell" curve with a small number of scores on the two extremes and a large grouping in the center. The scores on the scale ranged from 24 to 78 with an average of 49 and a standard deviation of 9.2. Correlation coefficients indicated that the individual items in this scale were strongly related to overall score. The distribution on this scale is shown in Table 2.

TABLE 2
POLICE ATTITUDES TOWARD DRINKING

	<i>Percent</i>
<i>UNFAVORABLE</i>	30.6
<i>UNDECIDED</i>	24.0
<i>FAVORABLE</i>	45.4
	<hr style="width: 50%; margin: 0 auto;"/>
	100.0 (N=183)

Nearly a third expressed negative attitudes about the use of alcohol, a quarter were undecided and about 45 percent expressed favorable attitudes toward alcohol use.

An effort was also made to measure aggression of officers by a six item scale taken from the Minnesota Multiphasic Personality Inventory (MMPI) that included such statements as "an insult to your honor should not be forgotten." Unlike the other two scales, there was no clear distribution of scores, and it appeared that the individual questions were measuring very different dimensions. No further use was made of the scale.

Attitudes Toward ASAP, ASAP Duty and Drinking Drivers

The next section contained items concerning attitudes of officers toward ASAP, ASAP duty and the drinking driver in general. The officers were asked to give their first, second and third choices about the major function of the program. Alternative responses included getting a drunk driver off the road, informing the public about the dangers of DUI, increasing arrests, getting the problem drinker into treatment or rehabilitation, reducing the number of alcohol-related accidents, lowering recidivism and reducing the number of people who drink. There was no clear agreement among officers about which was the most important function. Some 39 percent thought it was to get drunk drivers off the road, while slightly more than 30 percent felt it was to reduce the number of alcohol-related accidents. This is shown in Table 3.

TABLE 3
THE MAJOR FUNCTION OF ASAP

	<i>Percent</i>
<i>Get "Drunk Drivers" off the Road</i>	38.6
<i>Reduce Number of Alcohol-Related Accidents</i>	30.9
<i>Get Problem Driver into Rehabilitation and Treatment Programs</i>	19.3
<i>Teach Public about Dangers of Drunk-Driving</i>	10.1
<i>Increase Number of Persons Arrested For Drunk-Driving</i>	1.0
<i>To Reduce Recidivism among those who have completed ASAP</i>	0.0
<i>To Reduce the Amount that People Drink</i>	0.0
	<hr style="width: 50%; margin: 0 auto;"/>
	100.0 (N=207)

drinking behavior and that of his acquaintances. Two specific questions on drinking and driving were also included.

When asked whether co-workers, supervisors and friends drank, the vast majority of the officers indicated that 80 percent of the persons within each of these groups drank at least occasionally. Only ten percent of the officers indicated that half or more of their friends, supervisors and co-workers did not drink. When questioned about the greatest number of drinks of alcoholic beverages that persons in each of these three groups would drink at any one continuous period of time, the respondents gave exceedingly varied answers. The median number of drinks that supervisors, co-workers and friends would drink on one occasion was reported to be 5.1, 6.8, and 6.3 drinks respectively. The range of drinks for each of these groups varied from none to fifteen, with an even distribution throughout each range.

Specific items on the drinking habits of the officers included: where and with whom they drank, number of drinks they consumed at one party, how often they drank, whether they drank after their shift and whether their mother or father was a heavy drinker. Some ten percent of the two hundred and twelve respondents stated that they did not drink. It was found that about sixteen percent of the respondents indicated that their mother or father was a heavy drinker. Respondents were asked to rank order the types of individuals with whom they drank. The three most common groups were casual companions, spouse, and friends. Few indicated that they drank with co-workers or alone. Some 42 percent of the sample reported drinking at least twice a week. The remainder drank less frequently. When asked about drinking after their shift, slightly less than 20 percent maintained that this occurred at least three times a week, while approximately the same percentage said they did it either once a month or not at all. The remainder fell in between.

When asked where they usually drank, the largest proportion, nearly 40 percent, indicated their own homes. The next most common places were parties and at a friend's home.

Questions directed at the officers' perceptions of his drinking "limits" indicated that, on the average, the officers maintained they drank approximately five drinks at any one party. When asked how many cans of beer they would have to drink in a two hour period to become legally intoxicated the average response was about 4.7. When this item was combined with the officers' weight, an officer's perceived drinking limits could be calculated indicating knowledge of his/her own limits. About 21 percent of the officers had relatively accurate perceptions of their own limits. Sixty percent underestimated the number of drinks they could consume in a two hour period that would have left them legally intoxicated and almost 19 percent overestimated the amount. The 1975 Fairfax Roadside Survey found that only twelve percent of the nighttime drivers overestimated the number of drinks they could consume before being presumed to be legally intoxicated. A clear majority, 66 percent, underestimated the number of drinks they would have to consume to be legally intoxicated. 11/ These findings indicate the police share misconceptions similar to those of the drivers in Fairfax County and supports the need for training programs similar to the one being evaluated.

11/ Cheryl Lynn "Trends in Drinking-Driving at Night," Virginia Highway and Transportation Research Council, July 1976.

An attempt was made to compare officers' responses on the first, second and third function of ASAP. Officers were divided into those who were in total agreement on the functions of ASAP, those who had only partial agreement and those who disagreed. The data are presented in Table 4.

TABLE 4
AGREEMENT ON FUNCTIONS OF ASAP
PERCENT

<i>DISAGREEMENT OF FUNCTIONS</i>	30.1
<i>PARTIAL AGREEMENT ON FUNCTIONS</i>	36.4
<i>AGREEMENT ON FUNCTIONS</i>	33.5
	<hr/> 100.0 N=(206)

A second series of questions was included to determine attitudes toward problem drinkers. Officers were first asked to indicate which of five alternatives they felt would best solve drinking problems. All the alternatives were intended to be adverse in nature, with the exception of an "other" category. The primary interest was to determine whether the respondents would choose the "other" category in contrast to the five punitive measures. Almost 75 percent of the officers chose the "other" or nonadversive response. Among those who selected an adverse category the alternative of forcing the defendant to take medicine was the most popular response.

The next item asked the respondents to select the three best helpers for problem drinkers from a list of items. Table 5 indicates a general lack of consensus among the officers. The largest proportion, some sixteen percent, fell in the area of "will power," followed rather closely by special education, ASAP, education in schools and good law enforcement.

TABLE 5
THE BEST HELPER FOR THE PROBLEM DRINKER

<i>WILL POWER</i>	16.2
<i>SPECIAL EDUCATION FOR DWI'S</i>	12.2
<i>ASAP</i>	12.2
<i>EDUCATION IN ELEMENTARY AND HIGH SCHOOLS</i>	11.7
<i>GOOD LAW ENFORCEMENT</i>	10.7
<i>ALCOHOLICS ANONYMOUS</i>	9.6
<i>PSYCHIATRIST</i>	6.6
<i>JUDGES WHO ENFORCE THE LAW STRICTLY</i>	6.1
<i>HOSPITAL ALCOHOL TREATMENT CENTER</i>	4.1
<i>UNDERSTANDING HUSBAND OR WIFE</i>	2.5
<i>PRIEST OR MINISTER</i>	2.5
<i>MEDICAL DOCTOR</i>	2.5
<i>JAIL</i>	1.5
<i>MENTAL HEALTH CLINIC</i>	1.0
<i>MARKED PATROL CARS</i>	0.5
<i>SOCIAL WORKER</i>	0.0
<i>BIRD DOGGING TAVERNS AND BARS</i>	0.0
<i>MENTAL HOSPITAL</i>	0.0
	<hr/> 100.0 (n=197)

One particularly fascinating question concerned the officer's judgment about the best way to keep the drinking driver off the highway. Nearly half felt the problem to be insoluble. Among those selecting a solution, the ASAP program was seen as the most important means of keeping drunk drivers off the highway, followed by suspended sentences. It appears that while many policemen see the program as a positive effort to deal with the problem of drunken driving, they were pessimistic about its ability to impact on the total drinking driving problem. This is shown in Table 6.

TABLE 6
THE BEST WAY TO KEEP THE DRINKING DRIVER OFF THE ROAD

	Percent
IMPOSSIBLE TO KEEP DRINKING DRIVERS OFF THE ROAD	48.3
ASAP PROGRAM	16.4
SUSPEND LICENSE	14.0
JAIL SENTENCE	9.7
OTHER REHABILITATION PROGRAMS	6.3
PUT THEIR NAMES IN THE NEWSPAPER	3.9
STIFF FINES	1.4
	<u>100.0 (N=207)</u>

A similar question was asked about the three best ways to reduce alcohol-related traffic accidents. Possible responses included such items as more severe laws, educating the public and more police officer contact with suspects. There was somewhat greater agreement on this item. Approximately 22 percent indicated the solution was stricter laws followed almost immediately by more ASAP patrols and public education. An additional twelve percent of the officers indicated strict court enforcement as the best method for reducing alcohol-related accidents.

Finally, respondents were asked to make judgments about the types of groups in which DUI's were most prevalent. The officers felt that the middle class was the most likely group in which drunk drivers were found, followed by the category "no way to know." This is shown in Table 7.

TABLE 7
-- MOST LIKELY GROUP IN WHICH DRUNK DRIVERS ARE FOUND

	Percent
Middle Class	31.7
No Way to Know	25.7
Upper Class	11.9
Lower Class	8.4
Whites	7.4
Business Executives	5.9
Military	5.4
Blacks	3.5
	<u>100.0 (N=202)</u>

When asked from which age group drunken drivers were normally found, slightly more than half the officers selected people in their mid-twenties or thirties followed by middle-aged persons. This is shown in Table 8. Relatively few indicated either teenagers or "no way to know."

TABLE 8
THE AGE GROUP WHERE MOST DRUNK DRIVERS ARE FOUND

	Percent
People in 20's or 30's	53.2
Middle-Age People	31.2
"No Way to Know"	11.2
Teenagers	4.4
Elderly People	0.0
	<u>100.0 (N=205)</u>

Next, the officer's feelings about the impact of ASAP participation on drinking and driving were queried. Nearly 30 percent of the respondents felt that ASAP participation would not lead to any changes. A slightly smaller percent felt that participation would make defendants less likely to drink and drive. Sixteen percent felt that the defendants would find someone else to drive and fourteen percent thought that defendants would drink less. Respondent's answers to the item on the first most likely consequence of ASAP participation is shown in Table 9.

TABLE 9
MOST LIKELY CONSEQUENCE OF PARTICIPATION OF ASAP

	Percent
Probably Don't Change	30.5
Are Less Likely to Drink and Drive	27.6
Are More Likely to Find Someone Else to Drive Them Home	16.3
Drink Less Before Driving	14.3
Take Less Patrolled Roads Home After Drinking	7.4
Change the Places Where They Drink	2.0
Drink More at Home	2.0
	100.0 (N=212)

The officers were also asked to indicate what they felt might happen to convicted drunk drivers who did not attend ASAP. Responses are shown in Table 10.

TABLE 10
MOST LIKELY CONSEQUENCE OF LACK OF PARTICIPATION IN ASAP

	Percent
Probably Don't Change	67.0
Take Less Patrolled Roads Home After Drinking	9.4
Are Less Likely to Drink and Drive	8.4
Drink Less Before Driving	4.9
Drink More at Home	3.9
Are More Likely to Find Someone Else to Drive Them Home	3.4
Change the Places Where They Drink	3.0
	100.0 (N=203)

The officers showed greater agreement about what impact arrest and conviction would have with respect to this group. A full two-thirds felt that the conviction would not change their drinking habits.

Crosstabulations were made of the officers' responses about what would happen to arrested drunk drivers who did and did not attend ASAP. Nearly 27 percent of the officers indicated that arrest and conviction, with or without ASAP participation, would not alter their behavior.

A final question was included about the impact of the project from 1972 to 1974. Two-thirds of the officers felt that ASAP had definitely contributed to a reduction in alcohol-related traffic crashes in Fairfax County during the period. Another 30 percent thought that there had been a possible reduction in these types of crashes, while only two and a half percent felt that ASAP had no effect.

Respondents were also asked to respond to a series of items on why they worked ASAP patrols. When asked whether they preferred ASAP to regular patrols, the vast majority of the respondents - almost three-quarters - said they did not prefer ASAP duty. Of the 25 percent who said they preferred ASAP duties, nearly half claimed that the money was of primary importance. Given a choice between ASAP and regular duty at the same pay, officers preferred the latter. However, extra pay did not appear to be the primary factor in selection of ASAP duty because most officers indicated clearly they would not volunteer for ASAP duty if they disliked it even if extra pay was involved.

DUI Apprehension Activities

A large block of questions in the survey concerned the patrol activities of the individual officer, especially the number of arrests and contacts. In addition, there was interest in obtaining insight into how suspected DUIs were processed, the use of alcohol testing equipment and information on possible drug involvement of suspects. A simple conceptual model of the process is shown in Figure 3. It indicates that the DUI process involves several distinct steps including patrolling, stopping, preliminary screening and formal testing. A break at any point in this system precludes a DUI arrest.

Proper DUI patrol activity requires considerable sensitivity to the types of driving behavior generally associated with drunk driving. Once a decision to stop a suspect is made, the police officer must question and/or test the subject to determine whether probable cause exists for a DUI charge. The officer may administer a preliminary breath test at this stage. If the test result is negative, the officer still has the option of arresting the suspect on a DUI charge. However, a negative test will generally result in the officer charging the suspect with a lesser traffic offense or releasing him with a verbal warning. If a suspect is charged with DUI, the officer will arrange for a formal blood or breath test. Once the test is completed, or if the suspect refuses to take the test, she or he is brought before a magistrate for a formal arraignment. The survey was especially interested in obtaining information about how officers handled the DUI process and in determining the factors that had the greatest impact on the way this process was carried out.

Level of DUI Activity

The first task was to obtain data on the level of DUI activity of the officers over varying periods of time. Use of actual police records on the number was thought to be improper, since it would require identifying each officer on the questionnaire. The alternative was to rely on the officer's own recall.

A large proportion of the officers, nearly one-half, reported that they had had no DUI contacts within the last week. One-eighth had one and the remaining quarter had had two or more. Since contacts do not always lead to arrests, even fewer had made DUI arrests during the last week. Nearly three-quarters of the group had had no arrests, with the remaining quarter showing one or more. The number of DUI contacts increased significantly when a six month time period was used. Nearly 25 percent recalled having zero to four contacts, 20 percent had five to ten contacts, 16 percent had ten to fifteen, and the remaining 40 percent reported fifteen or more. Another 20 percent indicated that they had had five to nine and the remaining 30 percent indicated ten or more arrests. The number of arrests and contacts for the last week and for the last six months are shown in Tables 11, 12, 13 and 14.

FIGURE 3
 DUI ARREST PROCESS

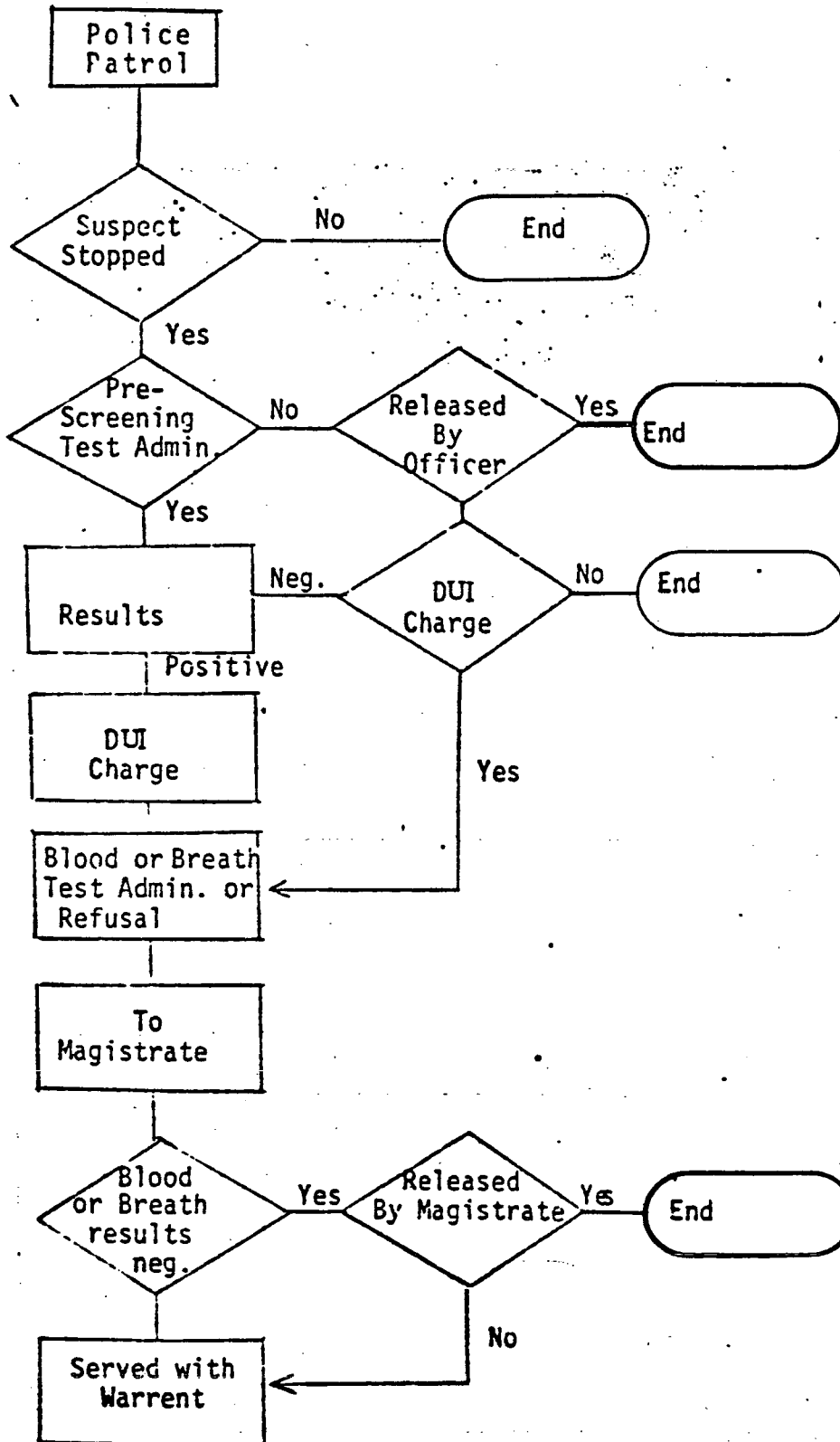


TABLE 11
NUMBER OF DUI-SUSPECTED CONTACTS REPORTED DURING THE LAST WEEK

Number	Percent
0	46.9
1	16.9
2	13.5
3	7.7
4	6.8
5	2.9
6	3.4
7	1.0
8	1.0
	<u>100.0</u> (N=207)

TABLE 12
NUMBER OF DUI-SUSPECTED CONTACTS REPORTED DURING THE LAST SIX MONTHS

Number	Percent
0 - 4	23.5
5 - 9	20.1
10 - 14	15.7
15 - 19	11.8
20 - 24	14.2
25 - 29	4.4
30 or more	10.3
	<u>100.0</u> (N=204)

TABLE 13
NUMBER OF ARRESTS FOR DUI REPORTED DURING THE LAST WEEK

Number	Percent
0	73.3
1	14.1
2	9.2
3	2.4
4	0.5
5	0.5
6	0.0
7	0.0
8	0.0
	<u>100.0</u> (N= 206)

TABLE 14
NUMBER OF DUI ARRESTS REPORTED DURING THE LAST SIX MONTHS

Number	Percent
0 - 4	44.9
5 - 9	23.4
10 - 14	15.1
15 - 19	8.3
20 - 24	4.9
25 - 29	2.4
30 or more	1.0
	<u>100.0</u> (N=205)

Since the number of arrests or contacts was a critical variable in this study, scales were constructed to summarize arrests and contacts in both the one week and six months time periods. Simple addition of these contacts and arrests during a particular time period was thought to be unsatisfactory, since it was possible for an officer to have a large number of contacts and a small number of arrests. This led to the development of a formula that combined the two measures, but reduced the weight given to officers with large numbers of contacts and small numbers of arrests. The distribution of the officers on this scale for the six month time period is shown in Table 15.

TABLE 15
LEVEL OF DUI ACTIVITY IN LAST SIX MONTHS

	Percent
Low	32.0
Moderate	31.5
High	36.9
	<u>100.0</u> (N=203)

The officers were also asked to estimate the number of arrests a typical officer would make. The group estimated that in a normal week the typical officer would make about 3.5 contacts and about 1.6 arrests. This was considerably larger than the self reported amount during the same period, which was 0.7 contacts and 0.2 arrests per week. When asked to estimate the number of DUI arrests made in Fairfax County during 1974, 35 percent selected the response two to three thousand and about 30 percent over three thousand. All the remaining responses were below two thousand. Thus, nearly one-third of the estimates were close to the actual arrest figure of 3,531 for that year.

When asked to compare their arrests to those of other officers, 56 percent indicated they were similar, 16 percent indicated more and 27 percent indicated fewer. Those officers who estimated their own arrests as higher or lower than those of other officers were asked to indicate why they thought this occurred. Of those respondents indicating they made more arrests than their fellow officers, over 50 percent felt they were more aware of drunk drivers on the road. Slightly less than 20 percent felt it was because of their concern about the consequences of DUI behavior and 15 percent attributed higher levels of arrests to frequent ASAP duty.

The majority of those indicating they made fewer arrests than their fellow officers attributed this to the time they spent on other police activities. Additional reasons included newness to the police force or not looking for DUI offenders.

Of those officers who felt their supervisors expressed an opinion about the number of arrests they should make, about one-third felt their supervisors would like them to make more arrests and approximately two-thirds thought their supervisors wanted about the same numbers of arrests. Less than four percent indicated their supervisors wanted fewer arrests.

Other Patrol Activities

A block of questions was concerned with actual patrol activities. The 14 separate items in this section generated five special scales. The two most important series of questions concerned reasons given for stopping suspected drunk drivers and reasons for testing drivers who were stopped.

Officers were asked to indicate the three most likely reasons for stopping a suspected drunk driver. Almost three-quarters of the respondents indicated that a constantly veering car was the most likely indicator. Fifteen percent indicated that a driver "clipping" the yellow line was the next most likely cause for making a stop. This is shown in Table 16. When asked for their second choice, slightly more than a third indicated clipping the yellow line and another third indicated slow car speed. The remainder were relatively evenly distributed. For the third reason the largest single category was "car traveling slowly."

TABLE 16
MOST LIKELY REASON FOR STOPPING A DUI SUSPECT

	Percent
Driver Continuously veers onto Shoulder or Roadway	73.4
Driver Clipping the Yellow Line	15.0
Car Speed is Considerably Slower than Traffic Flow	6.3
Driver Has Not Turned on Car Lights After Dark	1.9
Driver is Speeding	1.4
Vehicle is a Van	1.0
Driver Tosses Bottle or Can from Open Window of Car	1.0
Appearance or Types of Persons in a Car or Van	.0
Driver Starts Car Jerkily from Stopped Position	.0
	<u>100.0</u> (N=207)

A constructed scale measured strength of agreement on the first and second reasons for stopping a DUI. Responses on the primary category on both items signified agreement, while any other response indicated disagreement. Almost 40 percent disagreed; the remaining 60 percent agreed as shown in Table 17.

TABLE 17
FIRST AND SECOND REASONS FOR MAKING A DUI STOP

	Percent
Disagreement with Modal Group	39.1
Agreement with Modal Group	<u>60.9</u>
	100.0 (N=207)

The next series of items asked the officers about their attitudes concerning types of arrests. When the officers were asked the type of person they were least likely to arrest, officers indicated a man with his wife. Officers also indicated they were unlikely to arrest a woman with children. It is interesting to note the small number of responses given to the other items, such as a man with drinking buddies or a woman with a man in the car. The situations in which police are unlikely to make a DUI arrest are shown in Table 18 below.

TABLE 18
SITUATION IN WHICH POLICE ARE LEAST LIKELY TO ARREST FOR DUI

	Percent
Man with Wife and Children in Car	46.1
Woman with Children in Car	28.0
Man Alone in Car	7.8
Person with Dog in Car	7.3
Woman with Man in Car	4.1
Woman Alone in Car	2.6
Man with Drinking Buddies or Friends Along	2.6
Man with Girlfriend	1.6
	<u>100.0</u> (N=193)

A related question concerned particular geographical areas in which officers were reluctant to make DUI arrests. Six possible choices were available along with a "none" category. As would be expected, a large proportion, some 62 percent, checked this "none." Of the remaining 40 percent, approximately 33 percent indicated a busy intersection and twenty percent indicated an area of bars or taverns. Both of these answers would be expected, since there is some danger in stopping suspects in congested areas. The reluctance associated with the area of bars and taverns may stem from pressure that police departments receive from tavern owners when these areas are singled out for patrol.

The next item dealt with the time of day during which the officer would be reluctant to make an arrest. Nearly five-sixths of the officers did not consider time an important factor in their decisions to arrest for DUI. Of the fourteen percent who said it was, there appeared to be no particular time of the day that was avoided, although the largest plurality was morning.

A final issue with respect to the stopping of DUI suspects concerned whether or not officers would stop a suspect thirty minutes before the end of their shifts. Approximately 30 percent indicated this was very likely, while 37 percent indicated it was the same as at other times of duty. Slightly less than 25 percent indicated that it depended upon the situation, and ten percent indicated that they would probably not stop a suspect close to the end of their duty shifts.

After looking at situations in which officers expressed reluctance to make arrests, attention turned to what, if anything, officers did to avoid making DUI arrests. The items were organized into fourteen dicotomous yes and no questions that gave the respondent an opportunity to check a number of answers. The types of tactics that could be checked included such action as taking a person to the hospital, following a person home, getting another person to drive, calling a cab and calling a member of the person's family. Two-thirds of the officers reported they had stopped a suspected drunken driver and gotten another person to drive home. The next most frequent response, given by approximately a third of the officers, was that they had called a cab. Approximately 27 percent had encouraged the person to sleep it off, twenty percent had called a member of the person's family, and seventeen percent had taken the suspected drunk driver home in a patrol car. Very few officers answered affirmatively to such categories as "took the person to a hospital," "followed a person home," "called friend or neighbor," "hid the car keys" or "encouraged the suspect to drink coffee or walk in the fresh air." Eighteen percent of the officers indicated they had never used any of the tactics to avoid making an arrest.

The next item addressed the types of suspected drunk drivers to whom an officer had issued a verbal warning during the past week. Two-thirds indicated that they had not given a warning to any of the types of drivers listed in the question. The remaining one-third indicated they had given a warning to an "elderly man," "a polite well dressed individual" and a "teenage kid" during the past week.

A related question concerned whether proximity of the suspect to his home influenced the officer's decision to release suspects or follow them home. The officers were given choices that ranged from one-half mile from the suspects residence to over five miles, as well as a "none" option. Almost 50 percent of the officers indicated they would not release suspects no matter how close they were to their homes. Of those officers indicating they might release a suspect near his home, over 75 percent indicated they would have to be less than a half mile from the residence before they exercised this option.

Officers were asked whether they knew they would give a preliminary test when they stopped a suspect. Slightly less than half of the officers claimed they had already decided to test a suspect when the stop was made.

The next item, addressing the actual arresting behavior of the officers, asked the number of times during the last week on patrol they had stopped a suspect, found a positive BAC using a preliminary test and then let the suspect go. An overwhelming proportion of the officers, some 93 percent, indicated that they had not done this. About seven percent indicated they had done it once, and one officer indicated having let a suspect go twice during his last week of patrol duty.

A discretionary behavior scale was constructed that combined the item on whether an officer had ever released a suspect with only a verbal warning and the item on whether they had sent or followed a suspect home. Of the hundred and ninety-one officers who answered both questions, 56 percent could be classified as not having ever exercised discretionary behavior. The remainder reported having exercised some type of discretion in handling DUI suspects.

There has been considerable concern in the ASAP program about the effect court procedures had on the willingness of officers to make arrests. Exactly a third of the responding officers indicated that court procedures did make a difference in their decision to make arrests. Over two-fifths indicated that these procedures did not influence them and slightly less than a fifth were not sure whether they did or did not.

The final two items in the patrol activities section addressed the way officers obtained information about DUI arrest procedures, and whether they felt the amount of information they received was sufficient. There was considerable variation in the responses about who gave the most comprehensive information about apprehending, testing and charging a DUI suspect. Approximately a third indicated they got the most comprehensive information from police academy instructors, and another third cited "other" officers as their source. This was followed by "ASAP officers," eleven percent, and "found it out on their own," nine percent. This is shown in Table 19.

TABLE 19
WHO GAVE THE OFFICER THE MOST COMPREHENSIVE
INFORMATION ABOUT SPECIAL POLICIES OR PROCEDURES
TO BE FOLLOWED IN APPREHENDING, TESTING AND
CHARGING DUI SUSPECTS.

	Percent
Other Officers	35.0
Police Academy Instructors	34.0
ASAP Officers	10.7
Found It Out On Their Own	9.2
General Knowledge	5.3
Supervisors	5.3
No Information Given	.5
	100.0 (N=206)

Whatever the source, nearly two-thirds thought the amount of information received was about what was needed or more than was needed. Slightly more than one-quarter indicated that the amount of information was less than they needed, and less than one-tenth indicated the information was either not presented to them or was unclear or confusing. This is illustrated in Table 20.

TABLE 20
ADEQUACY OF INFORMATION ABOUT DUI PROCEDURES

	Percent
Adequate Information	64.8
More Information Than was Needed	3.8
Less Information Than was Needed	22.4
Unclear or Confusing Information	5.7
No Information Received	3.3
	<u>100.0</u> (N=210)

Crosstabulation of the items indicated that officers obtaining information from the police academy or from other ASAP officers received adequate or more than adequate information about DUI procedure, while officers who received information primarily from non-ASAP officers or on their own, tended to receive less information than was needed. This is presented in Table 21.

TABLE 21
AMOUNT OF INFORMATION RECEIVED ABOUT DUI PROCEDURES BY
WHO GAVE INFORMATION ABOUT DUI PROCEDURES

Amount of Information Received	Supervisor	Police Academy	Other Officers	ASAP Officers	On Own	General Knowledge
About what was needed	63.6	77.1	58.5	86.4	52.6	50.0
More than was needed	0.0	4.3	5.6	4.5	0.0	0.0
Less than was needed	18.2	14.3	31.0	0.0	36.8	40.0
Unclear	18.2	4.3	5.6	4.5	5.3	10.0
N=	11	70	68	21	18	10

$$\chi^2 (56.1 \text{ w } 24 \text{ D.F.}) = .0002$$

$$\text{Gamma} = .20$$

Processing DUI Suspects

The next block of questions concerned the arrest process, including the time required to stop a suspect, the use of equipment, handcuffing and possible drug involvement of DUI suspects.

Officers were asked the length of time it took from the place of arrest to the place where the formal breath or blood test would be administered and the length of time required for the entire DUI process. Over half of the officers indicated it

took them between fifteen and twenty-nine minutes to reach the testing facility. Nearly 30 percent answered less than fifteen minutes, and the remaining thirteen percent indicated thirty minutes or more. More variation was found with respect to the length of time it took to process a DUI suspect. Approximately 30 percent indicated less than thirty minutes, while slightly less than 40 percent indicated thirty to sixty minutes. Nearly 23 percent indicated sixty to ninety minutes, and only ten percent indicated more than ninety minutes.

There was considerable emphasis on the use of equipment in the DUI arrest process, since this was felt to have a significant impact on the willingness and ability of officers to apprehend and charge suspects. The officers were first asked the kind of equipment their substation possessed and then, the types of equipment they had personally used. A majority, some 58 percent, indicated that their station possessed only the balloon or alcolyzer. The various responses are shown in Table 22.

TABLE 22
EQUIPMENT USED BY OFFICERS

	Percent
Balloon Kits or Alcolyzer	49.5
Balloon Kits or Alcolyzer +Alcohol Sensor + Borg-Warner Alcohol Level Evaluation Test	19.8
Balloon Kits or Alcolyzer +Borg-Warner Alcohol Level Evaluation	13.7
Balloon Kits or Alcolyzer +Alcohol Sensor	9.0
None of the Equipment Listed Alcohol Sensor +Borg-Warner Alcohol Level Evaluation Test	5.2
Alcohol Sensor	1.9
Borg-Warner Alcohol Level Evaluation Test	0.9
	0.0
	<u>100.0</u> (N=212)

When asked to indicate the frequency with which they used the balloon test, over one-third of the officers responded that they used it on more than 90 percent of the suspects they stopped. Slightly more than one-third indicated that they had given it to between 40 and 80 percent of the suspects and slightly more than a quarter indicated that they used it on less than 40 percent of the suspects they stopped.

The officers were also asked the percentage of time that the balloon failed to register, including the times that the suspect might not have been drunk. Over three-quarters of the officers indicated that the balloon test had not registered ten or less percent of the time. About ten percent stated that it failed to register 20 or 30 percent of the time, and only three percent indicated that it failed to register 70 or more percent of the time. When asked the number of times an arrest was not made because of equipment malfunction, over 90 percent indicated that equipment failure had never kept them from making an arrest.

One of the most striking features of the arrest procedure from the suspect's standpoint is handcuffing. This was believed to have a "shock" effect, and information was desired about the extent to which all suspects were handcuffed. The officers were evenly split about whether regulations required every DUI suspect be

handcuffed. Half said yes; half said no. There was somewhat better agreement on the point in the DUI procedure at which suspects should be handcuffed. Slightly more than 80 percent indicated it should occur before a breath or blood test is administered. Of the remaining eighteen percent, nearly all answered after the breath or blood test.

Additional questions were included about the frequency with which officers handcuffed men and women, and the reasons that they did not handcuff women. Nearly two-thirds said that they always handcuffed men while only one-half said they always handcuffed women. When asked why they did not like to handcuff women, the most frequent reason given was that it was seldom necessary, although most officers failed to answer the item.

There were three items in the questionnaire on suspected drug involvement. About 60 percent of the officers indicated they had stopped at least one suspect during the last month that they felt was under the influence of drugs. The great majority stopped one or two during this period. Nearly two-thirds indicated that they had arrested the suspected drug user, but did not indicate whether it was for DUI or another offense. When asked the reasons for not arresting suspected drug users, the officers indicated a variety of responses. About one-quarter indicated lack of court support and about the same proportion indicated lack of evidence. Slightly more than a third indicated they had let the suspect go for other reasons.

One interesting series of items asked officers what suspects did to avoid a DUI arrest. Eleven different types of avoidance techniques were identified, and officers were asked whether suspects they had stopped had ever used any of the methods. Half of the officers had experienced six of the eleven. These included telling the officer the police chief was a personal friend, telling the officer the suspect would make trouble for him, cursing, crying, claiming to have medical problems, or claiming to be an important person who would be hurt by an arrest. Two of the techniques, offering sexual favors or claiming that erratic driving behavior was caused by lighting a cigarette or drinking a coke, were reported by about a fifth of the officers. Because of the large number of possible combinations of items, a composite scale was constructed to summarize the responses. Slightly more than twenty percent of the officers reported never having experienced any of the eleven tactics. About 30 percent indicated one tactic and 26 percent indicated two or three. Slightly more than 20 percent indicated four to eight tactics.

BIVARIATE ANALYSIS

Crosstabulations were run between a single independent and a single dependent variable. Two statistical measures were used to determine presence of relationships between variables. The first was chi-square that measures whether or not relationships between two variables are significant, that is, reflect a true relationship rather than one that occurred by chance such as peculiarities in the way the sample was chosen. A .05 probability level was generally used to determine significance. This means that there was a 95 percent probability that the relationships found actually occurred. The second statistic was the gamma coefficient, a statistic frequently used by sociologists that measures the strength of association between variables that are at least ordinal in character. This statistic may take on a variety of values from zero to 100. In this study .00 to .09 was considered to

indicate no relationship, .20 to .29 was thought to indicate a moderate relationship and .30 and higher was felt to indicate a strong relationship. The gamma statistic is not applicable when relationships are not monotonic in nature. Monotonic relationships are those where an increase in one variable is associated with an increase or decrease in another in the same direction. The gamma coefficient between an independent and dependent variable is referred to as a zero-order correlation. When the effect of a third variable is controlled, a first-order partial gamma is produced that indicates strength of the relation between the dependent and independent variable when the effect of a third variable is held constant.

The results from the bivariate crosstabular analysis are presented below. The three dependent variables used in the analysis are self-reported level of DUI activity, familiarity with preliminary screening equipment and agreement on reasons for making a DUI stop.

Self-Reported Levels of DUI Activity

The first of the three dependent variables is the officers' level of DUI activity as measured by self-reported DUI contacts and arrests over the last six months. When the crosstabulations between this variable and individual independent variables were examined, moderate relationships were found between the level of DUI activities and the officers' knowledge about alcohol and driving and his attitudes toward drinking. These are shown in Table 23 and 24.

TABLE 23
KNOWLEDGE OF ALCOHOL
BY
LEVEL OF DUI ACTIVITY

KNOWLEDGE	LOW	MODERATE	HIGH
LOW	30.6	17.7	15.2
MODERATE and HIGH	69.4	82.3	84.8

N= 62 62 79

χ^2 (5.3 w 2 D.F.) = .06

TABLE 24
 LEVEL OF DUI ACTIVITY
 BY
 OFFICER ATTITUDES TOWARD DRINKING
 DRINKING ATTITUDES

Level of Activity	Unfavorable	Undecided or Favorable
Low	42.6	25.4
Moderate	29.6	32.0
High	27.8	42.6
N=	54	122

χ^2 (5.8 w 2 D.f.) = .05

Gamma = .30

The first table indicates that officers with low levels of knowledge about alcohol and drinking tend to make fewer arrests than officers with moderate or high levels. A moderate relationship was identified between an officer's self-reported level of DUI arrests and attitudes toward drinking. Officers who expressed unfavorable attitudes toward drinking, as measured by the Likert drinking scale, tended to report lower levels of arrest and contact activity than those who either expressed favorable attitudes toward drinking or who were undecided. The opposite was anticipated. The reason for this finding is not clear. One possible explanation is that one or both of these self-reported variables may not be a valid measure of the characteristic being examined. Since the drinking attitude scale was carefully constructed and validated, any error would probably occur in the item on level of contacts and arrests. It is quite possible officers have difficulty accurately recalling their past level of activity. Alternatively, the relationship being examined may be more complicated than the literature suggests or perhaps officers who drink are more familiar with the potential dangers of drunk driving.

Moderate relationships were also found between the level of DUI activity and age, education, and length of time it took the officer to process a DUI suspect. The relationship between amount of activity and age was rather interesting and is shown in Table 25.

TABLE 25
 LEVEL OF DUI ACTIVITY
 BY
 AGE
 AGE

Level of Activity	19-23 years	24-26 years	27-29 years	30 or more years
Low	34.1	25.9	21.3	46.3
Moderate	29.5	31.0	34.0	31.5
High	36.4	43.1	44.7	22.2

N= 44 58 47 54

χ^2 (10.6 w 6 D.f.) = .10

Gamma = .13

The younger officers showed limited variation. Nearly equal proportions reported low, moderate or high levels of DUI activity. Greater differences were, however, noted between officers who were between 24 and 26, 27 and 29 and over 30. Those in the 24 to 26 and 27 to 29 year old range had higher levels of arrests than those over 30. The relationship between age and self-reported level of DUI activity is primarily a function of years of police experience. This is illustrated in Table 26 which shows the crosstabulation between the intensity of DUI activity and the years of experience. The relationship between the two is significant at the .0002 level. The gamma coefficient is low because the data is not monotonic in nature. As was true with age, officers with more than one but less than three years on the force had higher levels of arrests than those with three to five years who, in turn, had higher levels than those with six or more years. Officers who had been on the force for less than one year had the lowest level of self-reported arrests and contacts. This probably reflects a combination of limited knowledge about DUI procedures and limited opportunities to make such arrests. The most viable interpretation is probably that younger officers, once they are integrated into the force, may look particularly hard for drunk drivers. With time, however, officers tend to move into situations where they are either unable to make large numbers of DUI arrests or become more socialized into the level of DUI activity that is generally expected of them. Most organizations have informal sanctions against persons who overachieve because it reflects badly on other workers.

Moderate to strong relationships were found between the intensity of DUI activities and the two variables concerned with time, i.e. how long it took the officers to reach the test facility, and how long it took them to process the DUI suspect. The relationship was stronger with respect to the latter item and is shown in Table 28. Differences are particularly striking between officers with low or medium levels of DUI activity, and those with high levels. Time was thought to be a function of familiarity with procedures, experience with preliminary testing equipment, availability of formal testing equipment and substation location. This finding is in keeping with preASAP experience in Fairfax County. One of the primary reasons for the limited DUI arrests prior to the inception of ASAP was the time needed to process suspects who frequently had to be taken to a hospital for a blood test. Consequently, officers were discouraged from charging suspected drunk drivers with DUI.

TABLE 28
 LEVEL OF DUI ACTIVITY
 BY
 HOW LONG TO PROCESS A DUI SUSPECT
 PROCESSING TIME

Level of Activity	under 30 minutes	31-60 minutes	over 60 minutes
Low	55.2	20.0	21.2
Moderate	28.4	42.9	22.7
High	16.4	37.1	56.1

N= 67 70 66

χ^2 (35.8 u 4 D.f.) = .0001

Gamma = .47

Strong relationships were uncovered between level of DUI activity, and the two items that related to patrol experience. Officers who reported being offered favors on a large number of occasions had higher levels of self-reported DUI activity than officers who reported only a few such offers. The second experience related variable, tactics an officer used to avoid making an arrest, shows a very similar pattern, in that officers who reported higher levels of DUI activity reported using more tactics to avoid arresting than those who did not. This is shown in Table 29. The fact that officers who made many arrests used a considerable amount of discretion was a rather interesting finding. It might have been predicted that officers with high levels of DUI activity would be extremely single-minded with respect to handling suspects, but this did not appear to be the case. What is probably happening is that officers with a large number of contacts will have a greater opportunity to exercise discretion than those with only a few contacts.

TABLE 2 9
LEVEL OF DUI ACTIVITY
BY
TACTICS USED TO AVOID A DUI ARREST

NUMBER OF TACTICS

Level of DUI Activity	none	one	2-3 Tactics	4-8 Tactics
Low	56.8	32.3	26.3	13.3
Moderate	25.0	37.1	26.9	35.6
High	18.2	30.6	46.2	51.1

N= 44 62 52 45

χ^2 (24.1 w 6 D.f.) = .0005

Gamma = .38

A strong relationship was also encountered between level of DUI activity and the number of serious or fatal DUI accidents handled. The larger the number of suspected alcohol related serious or fatal accidents handled within the past year, the higher the self-reported level of DUI activity. This is illustrated in Table 30.

TABLE 30
LEVEL OF DUI ACTIVITY
BY
NUMBER OF SERIOUS OR FATAL
DUI ACCIDENTS HANDLED IN THE LAST YEAR

NUMBER OF ACCIDENTS

Level of Activity	One	Two	Three or more
Low	63.9	27.0	8.8
Moderate	23.0	36.5	33.8
High	13.1	36.5	57.4

N= 61 74 68

χ^2 (50.7 w 4 D.f.) = .0001

Gamma = .60

The final area where a strong relationship between DUI activity levels and independent variables was encountered was the types of equipment with which the officer had experience. These relationships are shown in Table 31. The table indicates that officers who reported using a variety of pre-screening testing devices tended to have higher levels of arrests than those officers who had experience with none or one.

TABLE 31
 LEVEL OF DUI ACTIVITY
 BY
 TYPES OF EQUIPMENT USED BY OFFICERS
 TYPES OF EQUIPMENT

Level of Activity	None	Balloon or Alcohol Sensor	Two or more types of Equipment
Low	72.7	38.6	19.8
Moderate	27.3	37.6	25.3
High	0.0	23.8	54.9

N= 11 101 91

χ^2 (30.7 \underline{w} 4 D.f.) = .0001

Gamma = .53

No relationship was found between self-reported level of DUI activity and ten other independent variables. These included reasons given for stopping, discretionary behavior, major function of ASAP, years of specialized training, outcomes for suspects who attended or did not attend ASAP, whether officers knew they would use a prescreening test when a suspect was stopped, the extent of information received about DUI laws and procedures, the officers' perceptions of whether supervisors wanted fewer or more arrests, and the substation to which they were assigned. The absence of findings between self-reported level of DUI activity and the amount of information received about DUI procedures is interesting and deserves further mention. This is shown in Table 32 and depicts a relatively similar distribution of DUI activity, as measured by self-reported contacts and arrests, regardless of the amount of information received. In particular, there were limited differences between officers claiming to have received less information than they needed and those officers who felt that they received about what they needed. A small number of officers who received more information than needed tended to have marginally higher levels of DUI activities, but the differences were too small to be meaningful.

TABLE 32
 LEVEL OF DUI ACTIVITY
 BY
 AMOUNT OF INFORMATION RECEIVED
 ABOUT DUI PROCEDURES

AMOUNT OF INFORMATION

Level of Activity	No Information	Less Than Adequate Information	Unclear Information	About What Needed	More Than Needed
Low	16.7	39.1	33.3	30.0	25.0
Moderate	33.1	30.4	41.7	32.3	12.5
High	50.1	30.4	25.0	37.7	62.5

N= 6 46 12 130 8

χ^2 (5.5 w 8 D.f.) = .69

Gamma = .13

Type of Alcohol Testing Equipment Used

The next dependent variable addressed in the analysis was the type of preliminary testing equipment an officer had used. A small percentage reported not having used any testing device. About two-thirds had used one piece of equipment, usually the balloon, while the remainder had used two or more.

Of the independent variables that were crosstabulated with types of equipment an officer had used, about half showed moderate or strong relationships and half showed either very weak relationships or none at all. Variables with strong relationships included the number of serious or fatal DUI accidents thought to be alcohol related that were handled in the last year, the percent of officers that gave the balloon test, their knowledge of alcohol and DUI laws and their level of self-reported DUI activity. There was a clear relationship between the number of serious or fatal DUI accidents and the officers' experience with equipment. Officers lacking experience with pre-screening equipment handled relatively few DUI accidents, while officers who were familiar with two or more types of equipment handled three or more such accidents. Officers with experience with only one type of equipment, usually the balloon, were evenly distributed between the none, one or two and three or more categories. This is illustrated in Table 33.

This is probably another relationship related to experience. More DUI experienced officers would be more likely to conclude that an accident was alcohol related, since they were more familiar with DUI behavior. Officers with experience would also be

This is probably another surrogate measure of DUI experience. Officers familiar with DUI behavior are probably going to stop a higher proportion of suspects who are obviously intoxicated and need to be tested than are officers with less experience.

The third variable related to types of equipment used was knowledge of alcohol and drunk driving. As would be expected officers with the widest experience with testing equipment also tended to score highest on the knowledge scale. This is shown in Table 35.

TABLE 35
TYPES OF EQUIPMENT USED
BY
KNOWLEDGE OF DUI

KNOWLEDGE

EQUIPMENT USED	LOW	MODERATE	HIGH
NONE	9.5	5.1	3.7
ONE TYPE	66.7	49.4	42.7
TWO OR MORE TYPES	23.8	45.6	53.7
	42	79	82

$\chi^2 (10.6 \text{ w } 4 \text{ D.F.}) = .03$

Gamma = .32

This would be an expected outcome of the training process, since officers being taught to use various types of testing equipment would probably receive instructions about other facets of alcohol and driving.

Number of years spent as a police officer was found to be related to experience with equipment; both the least experienced and the most experienced officers were less likely to have worked with several types of equipment than were officers with two to five years of experience.

Another variable, the percentage of time the officer reported that the balloon test did not register, was also related to experience with equipment. Officers reporting that the balloon test failed to register at some time were more likely to have had experience with two or more types of testing equipment. This would be expected and relates to the fact that these officers probably made more stops, and therefore had a greater likelihood of administering negative tests. Officers who had experience with a variety of types of equipment were also more likely to experience equipment failure that precluded a DUI arrest.

No relationships were found between the types of equipment used and such items as: 1) specialized training; 2) length of time needed to process a DUI; 3) whether

TABLE 37
REASON FOR STOPPING A DUI
BY KNOWLEDGE OF DUI

KNOWLEDGE			
KNOWLEDGE	LOW	MODERATE	HIGH
Disagreement about Reasons for Stopping	50.0	33.3	37.8
Agreement on Reasons for Stopping	50.0	66.7	62.2

N=
 χ^2 (3.1 w D.F.)=.20

40

78

82

Gamma = .10

Multivariate Analysis

If the researcher wants to determine the validity of relationships between two statistically associated variables, the effect of extraneous or third variables must be removed. This is normally referred to as controlling. In experimental studies, control is usually achieved through randomization or matching in the design. This is not possible in non-experimental studies that do not have control groups. In that case the investigator must rely on statistical analysis after the data has been collected. Statistical controls may take many forms including, correlation, analysis of variance, regression factor analysis, multivariate tables and tabular analysis. Tabular analysis involves crosstabulating independent and dependent variables for various values of a third variable using percentage comparisons. Tabular analysis is probably the clearest and simplest way to identify causal relationships. The current study uses a combination of the last two approaches.

There are essentially four ways that a third variable may influence a relationship between an independent and dependent variable. These are called explanation, interpretation, specification and contamination. ^{12/} In each case the relationship between the independent or dependent variables changes when the effect of the third variable is controlled. In explanation, the third variable occurs prior in time to both the independent and dependent variables. When the effect of the third variable is controlled the relationship between the independent and dependent variables disappears. The original relationship is therefore spurious and has been explained by the third variable.

If the third variable intervenes between the independent and dependent variables, it is called interpretation, since the relationship between the two variables is interpreted by the third variable. Such variables are usually an important link in the causal chain that connects the independent and dependent variables. Often the introduction of a third variable leads to neither the persistence of the original relation

^{12/} Travis Hersh and Hannan C. Selvin, Principle of Survey Analyses, Free Press, N.Y. 1973.

nor the vanishing of it, but rather interacts so that effects of the independent variable on the dependent variable differ from one value of a third variable to another. This is called specification, although it is often referred to as interaction or conditional relations in the literature.

The final type of third variable relationship is contamination. This is a situation where the effects of antecedent variables stem from the research procedures themselves, rather than from the effects of the variables under examination. These so-called artifacts of testing are rather common in social research.

The procedures used in this phase of the analysis involve running crosstabulations controlling for selected third variables. These variables included years of experience as a police officer, attitudes toward drinking, knowledge of alcohol and DUI procedures and substation.

Both chi-square and gamma coefficients were used to determine whether relationships were present. For variables where relationships were monotonic that is, situations where an increase in one variable led to increases or decreases in another, first order partial gammas were used to determine the strength of the relation between the independent and dependent variable when the effect of the third variable was held constant.

Years of Experience

The first of the variables used as a control was years as a police officer. Experience would influence bivariate relationships if new officers differed from those who had moderate or high levels of experience. This proved to be the case with a number of changes occurring in the relationships between variables when police experience was controlled.

The first of the crosstabulations to be affected by experience was knowledge about alcohol and DUI activity level. The relationship between these two variables was significant for inexperienced officers but weakened as experience increased.

The relationship between discretionary behavior and level of DUI activity was also influenced by police experience. Officers who had twelve or less months of experience and reported a high level of DUI activity, indicated they seldom exercised discretionary behavior. As years of experience increased, this relationship reversed. Those officers who had three or more years of experience and a high level of DUI activity reported more discretionary behavior. Officers with three or more years experience who frequently exercised discretionary behavior also had a high degree of agreement on reasons for stopping a DUI suspect. The relationship between discretionary behavior and agreement on reasons for stopping a DUI suspect was not significant for inexperienced officers.

Years as a police officer also affected the relationship between the length of time it takes an officer to process a DUI and the level of DUI activity. Inexperienced officers' level of DUI activity was not related to the length of time it took them to process a DUI. This relationship was significant, however, among experienced officers. Experienced officers who indicated it took them a short or moderate amount of time to process a DUI reported higher levels of activity than those who needed large amounts of time to process a DUI. Experienced officers indicating it took them a longer time to process a DUI, reported low levels of DUI activity.

Controlling for experience influenced the relationship between amount of time to process a DUI and agreement on reasons for stopping a suspect. Officers who were relatively inexperienced and indicated they required a large amount of time to process a DUI, also agreed on reasons for stopping a suspect. The experienced officer, however, was more likely to agree on reasons for stopping a suspect if he required only a short time to process an offender.

Inexperienced officers showed no relationship between knowing before they stopped a suspect whether or not they would have a BAC test administered, and agreement on reasons for stopping a DUI suspect. As experience increased, the relationship between these two variables was significant. Officers with more than one year experience who knew before they stopped a suspect that they would have a test administered, also had high agreement on reasons for making a stop. If, however, the experienced officer did not indicate he knew if he would test a suspect, he also did not agree with other officers on reasons for stopping a DUI offender.

Knowledge of Alcohol and Driving, Attitudes Toward Drinking, and Substation Assignment

Introduction of the other three control variables, knowledge of alcohol and driving, attitudes toward drinking and substation to which the officers are assigned met with very little success for reasons that are not entirely clear. This is of particular interest with respect to substation since some differences across the substations on DUI activity, knowledge of alcohol and driving and attitudes toward drinking would have been expected. Few differences appeared with the exception of differences with respect to the types of testing equipment with which officers were familiar.

The lack of findings in the control section suggests that DUI apprehension is a very complex process that is influenced by a variety of outside forces and is therefore not amenable to simple explanations. It also raises questions about the validity and usefulness of self reported measures collected through self administered instruments.

IV. SUMMARY OF WAVE I FINDINGS

The study had two major objectives. The first was to ascertain whether there were relationships between the personal characteristics of police officers, their knowledge of alcohol and driving and their attitudes toward drinking, and involvement in DUI patrol and arrest. The second was to determine the impact of a police orientation on the officers' knowledge and attitudes about drinking and driving and their DUI patrol activities.

A questionnaire was administered to 212 officers during the first hour of an ASAP police orientation. Information was collected on a wide variety of items including personal characteristics, drinking habits of both the officers and their peer groups, knowledge and attitudes about alcohol and driving, attitudes of officers about drinking drivers and ASAP, and police experience with emphasis on DUI patrol and apprehension activities. The typical officer in the study was a Protestant male in his mid-twenties with one year of college. The officer was raised in a family of Northern European descent in a small-to-medium sized community in Virginia.

The drinking habits of the officers surveyed follow those of the general population. Officers reported drinking most frequently with companions and spouses and drinking most often at home. Most of the officers stated that a large proportion of their friends, co-workers and supervisors drank alcoholic beverages. Persons in each of these groups were reported to drink an average of six drinks on any one occasion.

About 60 percent of the officers underestimated the number of beers they would have to consume in a two hour period to reach the level of legal intoxication. When the officers' perceptions of how much they would have to drink to be legally intoxicated were compared to the perceptions of drivers obtained in other surveys by the Fairfax ASAP, police officers were found to have relatively similar perceptions or misperceptions of their own limits.

Questions related to the officers' knowledge of alcohol and driving and their attitudes toward drinking produced scales that showed considerable variation among officers on both these dimensions. Approximately one-fifth of the officers had limited knowledge of alcohol and driving while about two-fifths had high levels of knowledge. Nearly one-half expressed favorable attitudes toward alcohol use.

Nearly two-thirds of the officers indicated they thought the main function of ASAP was either getting drunk drivers off the road or reducing alcohol-related accidents. There was considerable variation in the officers' opinions about the best ways to deal with drunk drivers. It appeared that while most officers saw the ASAP program as the most positive way of keeping the drunk driver off the highway, they were relatively pessimistic about its ability to have a significant impact on the total problem of drunk driving. However, the traditional legal sanctions were seen as even less effective. Two-thirds of those surveyed did feel that the ASAP program had led to reductions in alcohol-related crashes in Fairfax County.

It was clear from a series of items that while most of the officers worked ASAP duty because extra pay was available, they did not do it simply for the money. An overwhelming proportion indicated unequivocally that they would not work ASAP duty for any price if they disliked it.

DUI activities of the officers were measured by number of contacts and arrests, reasons given for making contacts, and use of alcohol testing equipment. Officers were asked to report number of contacts and arrests during the last six months. As would be expected, contacts were more numerous than arrests. For the six month time period, 24 percent of the officers reported none to four contacts. By comparison, 45 percent reported none to four arrests. On the other extreme, 46 percent of the officers reported ten or more contacts within the last six months. Only 22 percent reported ten or more arrests. The primary reason for making a stop was continuous veering on the roadway. The second most important reason was clipping the yellow line. Nearly half of the officers reported familiarity with balloon kits or the Alcolyzer; another twenty percent reported having used other types of equipment. Approximately five percent had used none.

Officers were asked to indicate whether a series of factors influenced their willingness to make arrests. These ranged from court procedures and the types of people in the automobile to the types of areas and the time of day and time during shift. About a third of the officers indicated court procedures were an important factor in their decision to make an arrest. Types of geographical areas such as busy intersections, the time of day or nearness to the end of the shift appeared to have limited influence on whether an arrest was made. The types of persons in the automobile had a greater impact, with the presence of children in the car being a particularly important factor. Nearly half of the officers expressed reluctance about arresting a man when his wife and children were with him, and slightly more than a quarter expressed reservations about arresting a woman when she was accompanied by children.

Officers were also asked what they did to avoid arresting a person they had stopped and what the suspects did to try and talk them out of making an arrest. Two-thirds of the officers reported getting another person to drive home and a third had called a taxicab. When asked what the suspect did to avoid being arrested, half the officers reported that suspects had told them the police chief was a personal friend, threatened to make trouble, cursed or cried, claimed to have medical problems or claimed to be an important person who would be hurt by the DUI arrest.

A series of items in the survey dealt with processing of DUI suspects. It took the bulk of the officers between fifteen and twenty-nine minutes to bring the suspect to the facility where the formal blood or breath test is administered. Greater variation occurred with the total amount of time necessary to process the DUI. While the norm was about 30 minutes, a large proportion indicated it took them significantly more or significantly less than thirty minutes. Officers were slightly more likely to hand-cuff men than women but the differences were not large. About half felt the hand-cuffing of suspects was required; the other half did not.

An important issue that deserves mention was the way in which officers had received information about DUI procedures and the extent to which the information they had received was adequate for their needs. Nearly 30 percent indicated they had received information that was unclear, confusing, or less than adequate. Five percent had received no information at all. Very few officers had received more information than was needed. The great bulk obtained information through either non-ASAP officers or police academy instructors. On the whole, those receiving information from non-ASAP officers or on their own received less than adequate information. Those obtaining it from police academy instructors or ASAP officers were more likely to receive information they felt was adequate.

A major goal of the study was to establish whether relationships exist between the personal characteristics of police officers, their knowledge of and attitudes toward alcohol and driving and their involvement in DUI patrol and arrest. Research in the area is so limited that the development of detailed hypotheses seemed premature. Under the circumstances a strategy that involved a search for relationships between variables seemed the most productive approach.

Three major dependent variables were identified. These were the number of arrests and contacts within the last six months, reasons for stopping and testing a suspected drunk driver and types of alcohol testing equipment with which the officer was familiar. Data on the number of contacts and arrests during the preceding six months were combined in a way that reduced the effect of large numbers of contacts. Responses to the items on reasons for making a DUI stop were organized into those who agreed with one another and those who did not. Finally equipment utilization was divided into none, one, or two or more types of equipment.

Of the three dependent variables the first, self-reported levels of DUI activity, produced the most significant relationships. DUI activity was related to knowledge of alcohol and driving, attitudes toward drinking, age and years as a police officer, time required to process a DUI suspect, tactics used to avoid making a DUI arrest and the number of serious or fatal DUI accidents handled.

Officers with limited knowledge or unfavorable attitudes about drinking had lower levels of DUI activity than officers with high levels of knowledge or with favorable attitudes toward drinking. Age and years of police experience were also

found to be strongly related to DUI activity, although age appeared to be a function of years of experience. Officers with one to three years of experience showed significantly higher levels of DUI activity than those who had either less than one or more than three years experience. For inexperienced officers, low levels of DUI activity are probably a function of a combination of limited knowledge and opportunities. For older officers it may be a function of reduced opportunity if the officer has administrative duties, or the effects of socialization by other officers into what are thought to be appropriate levels of DUI activity.

Both items concerned with time, minutes needed to reach testing facility and minutes necessary to process a DUI suspect, were related to DUI activity levels. This was felt to be a function of familiarity with DUI procedures, experience with preliminary testing equipment and the availability of formal testing. Several of the patrol activities items were found related to levels of DUI with officers with more experience showing higher levels of DUI activity.

Probably the most interesting finding was the relationship between high levels of arrest activity and having handled a large number of serious or fatal DUI accidents. This relationship is consistent with the finding from the Arthur Young study and sentiments of persons who work in the Fairfax program that exposure to the consequences of drunk driving leads to greater enforcement efforts.

Several independent variables were not related to self-reported levels of DUI activity. Of particular interest was the lack of relationship between the amount of information officers reported receiving about DUI laws and self-reported levels of DUI activity. It had been expected that officers who reported receiving less than adequate information would have shown lower DUI activity levels. Possibly the item measured officers' judgment about the quality of the information received, rather than actual knowledge of DUI laws and procedures.

Weak relationships were uncovered with the two remaining dependent variables - familiarity with alcohol testing equipment and reasons for stopping a DUI. The number of serious or fatal DUI accidents handled was related to familiarity with testing equipment in much the same way as it was related to levels of DUI activity - officers familiar with more types of equipment knew more about alcohol and driving and had been involved with many more alcohol related accidents than were officers who were unfamiliar with different types of testing equipment.

An attempt was made to determine whether relationships between the dependent and independent variables were modified when the effects of specific third variables were controlled. The controls were years as a police officer, attitudes toward drinking, knowledge of alcohol and driving and officer's substation. Very little change in the existing relationships was evident when the effects of these third variables were held constant. The only variable that showed any discriminating power was years of experience as a police officer. This is consistent with many of the bivariate tables that suggested that knowledge of and experience with DUI suspects has a significant bearing on the officers involvement with the DUI process. This was also reflected in an interrelationship between a series of variables such as knowledge of alcohol and driving, familiarity with testing equipment, self-reported levels of DUI activity, tactics used to avoid an arrest and reasons for making a stop.

V. FINDINGS OF WAVE II

INTRODUCTION

The findings from the second Wave are presented in two parts. The first compares the demographic characteristics of officers in Wave II with those in Wave I. The second compares the responses on various items in the first Wave to those in the second. To simplify presentation, individual items were organized into several groups. They included: knowledge of alcohol and driving; habits and attitudes toward drinking; attitudes toward drinking and driving; attitudes toward ASAP; patrol activity; processing DUI suspects; and utilization of alcohol testing equipment. The discussion will emphasize those items where significant change occurred between the first and second Waves.

COMPARISON OF RESPONDENT CHARACTERISTICS IN THE FIRST AND SECOND WAVES

It will be recalled that in order to statistically compare responses from the first and second Wave 68 of the 212 officers from the first Wave were randomly eliminated. The remaining 143 officers in the first Wave could then be crosstabulated with the 143 respondents in the second Wave. Since some of the respondents in the first wave may not have completed the second Wave instrument, there was always the possibility that the respondents' characteristics would differ considerably. This would make comparisons of items from the first and second Wave instrument more difficult, since the comparisons are based on the assumption that the two samples are drawn from the same population and therefore have similar responses even if different individuals are involved. For that reason careful comparisons of officer characteristics on the two Waves were conducted.

The statistic employed for this purpose was the 'T' Test. The 'T' Test compares group means to determine whether or not a difference between two samples implies a true difference in the parent populations. Since there is a considerable likelihood that two samples drawn from the same population will show some natural variation, the main concern is not whether differences are present but whether the differences signify a true difference between the two populations. A significance level for the 'T' Test is chosen representing the smallest probability that will be expected as reasonable, due to chance or sample variability. The probability of getting a more extreme value of the statistic is then computed from the frequency distribution of the statistic and is compared to the actual sample means and variances. A decision can then be made as to whether the two samples can reasonably be expected to come from the same population.

'T' Tests can be applied only to data such as age that is continuous in nature and where the individual units of observation are identical. Since not all of the respondent data was interval in nature, 'T' Test comparisons were available only on selected variables including age, education, years as a police officer, time on patrol duty, and weight. The results of the comparisons are shown in Table 38.

Table 38
T' Test Comparisons of Respondent Characteristics
For First and Second Wave

Variable	Wave	Mean	Standard Deviation	Mean Difference	Standard Deviation	T Value	Degrees of Freedom	2 Tailed Probability
Age	Wave I	27.13	4.50	-0.84	6.3	-1.56	139	0.12
	Wave II	27.97	4.64					
Education	Wave I	2.70*	1.56	-0.12	2.3	-0.62	141	0.53
	Wave II	2.81	1.66					
Years as Police Officer	Wave I	3.9	3.50	-0.54	4.80	-1.34	139	0.18
	Wave II	4.5	3.57					
Weight	Wave I	3.95**	1.12	+0.007	1.64	- .05	130	0.95
	Wave II	3.95	1.28					
Time on Traffic Duty	Wave I	3.87	2.24	-1.45	2.94	-5.81	138	0.0000
	Wave II	5.32	1.92					

* Represents grouped data 1 = High School; 2 = 1 yr College; 3 = 2 yrs College; 4 = 3 yrs College; 5 = 4 yrs College; 6 = 5 yrs College; 7 = 6 or more yrs of College.

** Represents grouped data 1 = 0-128; 2 = 130-149; 3 = 150-169; 4 = 170-189; 5 = 190-209; 6 = 210-229; 7 = 230-249; 8 = 250-270

The trends in the data are as would be expected. All but one of the 'T' Tests are insignificant. The one significant difference occurs with respect to time on traffic duty. This is probably a function of time between the first and second wave because many officers attending the orientation had recently graduated from the police academy.

COMPARISON OF ATTITUDES, KNOWLEDGE AND BEHAVIOR FOR WAVES I & II

Knowledge of Alcohol and Driving

There was considerable interest in whether any changes occurred in the officer's overall knowledge about alcohol and driving or in their responses to any of the five items directly concerned with knowledge. All the knowledge items were combined into separate scales for the First and Second Waves. These scores were compared through use of 'T' Tests and crosstabulations. Both procedures indicated there were no statistically significant changes between the first and second wave. This is shown in Tables 39 and 40.

TABLE 39

'T' Test on Knowledge Scores
For Wave I and Wave II

Variable	Wave	Mean	Standard Deviation	Mean Difference	Standard Deviation	T Value	Degrees of Freedom	2 Tailed Probability
Knowledge	Wave I	9.57	0.909	0.07	1.30	0.61	128	0.54
	Wave II	9.50	0.885					

TABLE 40

KNOWLEDGE SCORES
FOR WAVE I AND WAVE II
(PERCENTS)

	Low	Medium	High	
Wave I	21.0 (↔)	36.2	42.8	138
	46.8 (↓)	57.5	48.0	
Wave II	24.6 (↔)	27.6	47.8	134
	53.2 (↓)	42.5	52.0	
	62	87	123	272

Chi-Square = N.S.

Even if no change in overall score was evident, it was thought some individual change might occur in one of the five items. The two items thought most likely to change were the questions on the BAC level at which the ordinary drivers become impaired and definition of DUI because many of the officers answered these items incorrectly in Wave I. Crosstabulation of Wave I and Wave II, shown in Tables 41 and 42, indicated no significant change in responses to either of these questions.

TABLE 41
COMPARISON OF ITEMS ON POINT
AT WHICH A DRIVER BECOMES
SERIOUSLY IMPAIRED BY WAVE
(percents)

	Correct	Incorrect	
Wave I	38.3 (→) 50.9 (↓)	61.7 49.2	141
Wave II	36.6 (→) 49.1 (↓)	63.4 50.8	142
	106	177	283

Chi-Square = N.S.

TABLE 42
COMPARISON OF DEFINITION OF
DUI BY WAVE
(percent)

	CORRECT	PARTLY CORRECT	INCORRECT	
WAVE I	36.2 (→) 54.3 (↓)	48.9 50.7	14.9 45.7	141
WAVE II	31.9 (→) 45.7 (↓)	49.6 49.3	18.5 54.3	135
	94	136	46	276

Chi-Square = NS

No significant changes were observed in any of the other items concerned with knowledge.

The prior discussion clearly indicated that the orientation had virtually no impact on the officers levels of knowledge six months after the orientation. The survey does not indicate whether the officers knew the information at the end of the

orientation but forgot it during the ensuing six months, or whether they never learned it at all. This would have required the survey be administered directly after the orientation, a procedure that was felt to be impractical.

Drinking Habits and Attitudes of the Officers

The first Wave instrument contained a series of items directed at the drinking habits of the respondents and their attitudes toward the use of alcohol. The officers were asked about their general feelings toward drinking plus a series of specific items on how much they drank, the persons with whom they drank, the places they most frequently drank, if they drank after their shifts, and whether or not they would drive after drinking at a party. Limited change in the responses to these items was expected, since the orientation was primarily concerned with DUI information and procedures not with the drinking habits or attitudes of the officers. Officer attitudes toward drinking were obtained from a twenty item Likert Drinking scale discussed on page 12.

As would be expected, no changes were evident in officer attitudes or drinking habits. 'T' Tests and crosstabulations for the attitude scale are shown in Tables 43 and 44.

TABLE 43

'T' TEST ON ATTITUDES TOWARD DRINKING FOR WAVE I AND WAVE II (PERCENTS)

Variable	Wave	Mean	Standard Deviation	Mean Difference	Standard Deviation	T Value	Degrees of Freedom	2 Tailed Probability
Attitudes Toward Drinking	Wave I	49.00	9.59	0.94	13.40	0.74	111	0.46
	Wave II	48.06	9.86					

TABLE 44

'T' TESTS ON ATTITUDES TOWARD DRINKING BY WAVE (PERCENTS)

	Low	Medium	High	
Wave I	42.0 (↔)	30.8	27.3	143
	53.1 (↓)	47.8	48.1	
Wave II	37.1 (↔)	33.6	29.4	143
	46.9 (↓)	52.2	51.9	
	113	92	81	286

Chi-Square = N.S.

There was also virtually no change in the individual variables concerned with drinking habits. This is illustrated in Tables 45 and 46 that show the frequency with which the officers drank and the person with whom the officers most often drank for the first and second wave.

TABLE 45
FREQUENCY WITH WHICH
OFFICERS DRINK BY WAVE

(PERCENTS)

	Three or More Times a Week	More Than Once a Month But Less Than 3 Times a Week	Once a Month or Less	Don't Drink	
Wave I	22.6 (↔) 52.5 (↓)	42.3 50.0	27.0 44.6	8.0 52.4	137
Wave II	19.7 (↔) 47.5 (↓)	40.8 50.0	32.4 55.4	7.0 47.6	142

Chi Square = N.S. 59 116 83 21 279

TABLE 46
PERSON WITH WHOM
MOST OFTEN DRINK BY WAVE

(PERCENTS)

	Friends	Co-Workers	Alone	Don't Drink	
Wave I	51.8 (↔) 49.3 (↓)	32.8 48.9	6.6 75.0	8.8 54.5	137
Wave II	54.9 (↔) 50.7 (↓)	35.3 51.1	2.3 25.0	7.5 45.5	133

144 92 12 22 270

Chi-Square = N.S.

Attitudes Toward Drinking Drivers

The officers were asked a series of questions directed at feelings toward drinking drivers. These included what the officer felt were the best helper for the problem drinker, the best way to keep a problem drinker off the road, the type of persons the officer felt were most likely to be arrested for DUI and the actions the officers thought would most likely lead to a decrease in DUL.

Sharp changes between the Waves were evident in the officers' perception of what was the best helper for the problem drinker. Officers in the Second Wave were likely to indicate treatment services or ASAP and less likely to state professional help or indicate "other". This is shown in Table 47.

TABLE 47
BEST HELPER FOR PROBLEM
DRINKER BY WAVE
(PERCENTS)

	Professional Help	Law Enforcement	Education	Treatment Services	ASAP	Other	
Wave I	13.5 (↔) 75.0 (↓)	16.5 47.8	23.3 46.3	15.0 32.3	12.0 39.0	19.5 89.7	133
Wave II	4.4 (↔) 25.0 (↓)	17.6 52.2	26.5 53.7	30.9 67.7	18.4 61.0	2.2 10.3	136
	24	46	67	62	41	29	269

Chi-Square (34.45 w 5 D.F.) = .0000

No significant change occurred in the officers' perception about the best way to keep drinking drivers off the highways. However, a slightly lower proportion of Wave II officers felt this was an impossible task and a slightly higher proportion of Wave II thought the ASAP program was the best means of getting the drinking driver off the road. About the same proportion in both Waves indicated the best approach was a punitive sanction such as jails, fines or suspended sentence. This is shown in Table 48.

TABLE 48
BEST WAY TO KEEP
PROBLEM DRINKER OFF ROAD
BY WAVE
(PERCENTS)

	Jail	Suspended Sentence	Stiff Fines	Put Name In Newspaper	ASAP Program	Other Rehabilitation	(Impossible)	
Wave I	10.0 (↔) 58.3 (↓)	15.0 55.3	1.4 44.4	2.9 44.4	15.0 38.9	7.1 55.6	48.6 53.1	140
Wave II	7.3 (↔) 41.7 (↓)	12.4 44.7	2.9 66.7	3.6 55.6	24.1 61.1	5.8 44.4	43.8 46.9	137
	24	38	6	9	54	18	128	277

TABLE 49
 MOST LIKELY WAY TO DECREASE
 ALCOHOL RELATED TRAFFIC ACCIDENTS
 (PERCENTS)

	More Severe Laws	More Special Patrols	More ASAP Patrols	Public Education	More Police Office Contact With Suspects	Unannounced Random Check Of Drivers	Strict Enforcement By Court	Better Treatment Programs
Wave I	21.4 (→) 50.0 (↓)	2.9 44.4	20.7 65.9	15.0 43.8	3.6 45.5	7.1 83.3	13.6 46.3	7.1 37.0
Wave II	22.4 (→) 50.0 (↓)	3.7 55.6	11.2 34.1	20.1 56.3	4.5 54.5	1.5 16.7	16.4 53.7	12.7 63.0

60

9

44

48

11

12

41

27

252

Chi-Square = N.S.

Officers in both Waves had relatively similar perceptions about the types and ages of persons who drive under the influence. The largest proportion thought most drunk drivers were middle class persons in their twenties or thirties. The next largest group however felt it was impossible to specify the type or age of persons who drove while intoxicated. No significant difference between responses before and after the orientation were uncovered.

Officers were also asked about the types of actions that would most likely lead to a decline in DUI related traffic accidents. A long list of responses was possible ranging from more severe law to better treatment programs. While the comparisons between First Wave responses shown in Table 49 were not significant, there were changes on a number of the individual items that should be mentioned. The proportion of officers feeling that more ASAP patrols or random checks of drivers would reduce alcohol related accidents dropped, while the number feeling that public education or better treatment programs would reduce DUI related crashes increased. Other responses remained relatively stable.

Attitudes Toward ASAP

Several items in the instrument were directed at the feelings of the officers about the function, and the effect of the Fairfax ASAP. Statistically significant change was observed between the first and second Waves in the item on the major function of the Fairfax ASAP. Before the orientation officers were more likely to indicate the primary function of the Fairfax ASAP was to get drunk drivers off the road and less likely to feel that ASAP should help get problem drivers into rehabilitation and treatment programs. Six months after the orientation they put more stress on getting DUIs into rehabilitation and to teaching the public about the dangers of drunk driving and less emphasis on getting drunk drivers off the highway. This finding, which is shown in Table 50 would be expected, since much of the orientation was concerned with how the ASAP program dealt with drunk drivers referred by the courts.

TABLE 50

MAJOR FUNCTION OF ASAP
BY WAVE
(PERCENTS)

	Get Drunk Drivers Off The Road	Teach Public About Danger Of Drunk Driving	Get Problem Drivers Into Rehabilitation	Reduce Number Of Alcohol Related Accidents	
Wave I	36.9 (↔) 62.7 (↓)	9.2 40.6	22.0 43.1	30.5 51.2	139
Wave II	23.1 (↔) 37.3 (↓)	14.2 59.4	30.6 56.9	30.6 48.8	132
	83	32	72	84	271

Chi-Square (11.7 w 5 Dif.) = .03

The officers perceptions of what happens to drunk drivers who attend the ASAP program is shown in Table 51. There is a slight, although not significant, positive change from the first to the second survey. The gamma statistic confirms the existence of a small relationship. Wave II respondents felt that program participants would be less willing to drink and drive or would drink less before driving than was the case in Wave I.

TABLE 51
EFFECT OF ASAP PARTICIPATION
ON PARTICIPANTS BY WAVE
(PERCENTS)

	Don't Change	More Cautious About Drinking And Driving	Less Likely To Drink & Drive or Drink Less Before Driving	
Wave I	30.9 (↔) 54.4 (↓)	26.6 55.2	42.4 46.5	139
Wave II	26.9 (↔) 45.6 (↓)	22.4 44.8	50.7 53.5	134
	79	67	127	273

Chi-Square - N.S.
Gamma = .13

A similar pattern was found with respect to the officers' perceptions about the overall impact of the ASAP on alcohol related crashes between 1972-1974. While the comparison of Wave I and Wave II are not significant, Table 52 indicates a moderate change that is confirmed by a moderate gamma.

TABLE 52
OVERALL EFFECT OF ASAP BETWEEN
1972 AND 1974 ON ALCOHOL
RELATED CRASHES BY WAVE
(PERCENTS)

	Definitely Reduced Alcohol Related Crashes	Possibly Reduced Alcohol Related Crashes	No Effect On Alcohol Related Crashes	
Wave I	67.9 (↔) 47.3 (↓)	29.3 58.6	2.9 57.1	140
Wave II	76.8 (↔) 52.7 (↓)	21.0 41.4	2.2 42.9	138
	201	70	7	278

Chi-Square = N.S.
Gamma = .21

Patrol Activity

One of the primary purposes of the orientation was to improve the patrol activity of officers. Toward this end the Wave I and II surveys examined a wide range of items on patrol behavior ranging from reasons for stopping and testing a suspected DUI and tactics used to avoid making a DUI arrest to origin of information about DUI procedures and laws. Officers on the Second Wave were slightly less likely to identify odor of alcohol on breath as a primary reason for having a blood or breath test administered and slightly more likely to indicate either stumbling or lack of coordination. This is presented in Table 53.

TABLE 53

MOST IMPORTANT REASON FOR HAVING
A BLOOD OR BREATH TEST ADMINISTERED
BY WAVE
(PERCENTS)

	Odor of Alcohol On Breath	Stumbling	Slurred Speech	Ballon Test	Lack of Coordination	Excuses For Driving	
Wave I	40.6 (↔) 57.1 (↓)	6.3 38.1	11.7 53.6	22.6 52.7	14.0 42.9	4.6 37.5	128
Wave II	31.2 (↔) 43.9 (↓)	10.1 61.9	10.4 46.4	20.4 47.5	19.2 57.1	8.0 62.5	125
	91	21	28	55	42	16	270

Chi-Square = N.S

Very little was uncovered between the two Waves with respect to the reasons for stopping a suspected DUI. Almost three quarters of those in both Waves indicated continuous veering as the primary reason for making a stop followed by clipping the yellow line. No change would be expected as a result of the orientation.

Some positive change was evident in a related item on whether the officer knew he would test the suspect when he made the stop. In the first survey only 40 percent of the officers responded affirmatively, while in the second, just over 50 percent said they had already made up their minds. Greater awareness of the driving behavior of intoxicated drivers would hopefully lead to a lower percentage of "false" stops. The change, which is only weakly significant, is shown in Table 54 and suggests a positive impact of the orientation. Officers showed no change in their opinions about the types of people they would be least willing to arrest for DUI nor the types of locations in which they would be anxious about making a DUI arrest.

A related series of questions asked officers whether they had personally used any one of 12 tactics to avoid arresting an obviously intoxicated person and the types of suspects they had issued a warning to during the last week of patrol. Only some of the items contained sufficient responses to permit comparisons between the two Waves. Significant declines occurred between the two Waves in the use of two tactics, encouraging the suspect to sleep it off somewhere and to drink black coffee, that represent efforts to sober up obviously intoxicated suspects so they can continue to drive. Both techniques, particularly the second, are notoriously ineffective with highly intoxicated drinkers and can be dangerous as well, since they allow the drunk driver to get back on the highways. This is shown in Tables 55 and 56.

TABLE 54

WHETHER OFFICER KNEW SUSPECT
WOULD BE TESTED WHEN STOP
WAS MADE BY WAVE
(PERCENTS)

	Yes	No	
Wave I	40.0 (→) 43.8 (↓)	60.0 54.5	140
Wave II	50.7 (→) 56.3 (↓)	49.3 45.5	142
	128	154	282

Chi-Square (2.84 w 1 D.F.)=N.S.

TABLE 55

ENCOURAGED SUSPECT
TO SLEEP IT OFF BY WAVE
(PERCENTS)

	Yes	No	
Wave I	28.0 (→) 63.5 (↓)	72.0 46.2	143
Wave II	16.1 (→) 36.5 (↓)	83.9 53.8	143
	63	223	286

Chi-Square (5.2 w 1 D.F.) = .02

TABLE 56

ENCOURAGED SUSPECT TO
DRINK COFFEE
(PERCENTS)

	Yes	No	
Wave I	7.7 (→) 78.6 (↓)	92.3 48.5	143
Wave II	2.1 (→) 21.4 (↓)	97.9 51.5	143
	14	272	286

Chi-Square (3.6 w 1 D.F.) = .05

All but one of the remaining six avoidance tactics that showed no change between the two Waves concerned activities that involved getting someone else to take responsibility for the suspected DUI. The one exception was following the person home and probably involves a suspect who is not highly intoxicated.

Ideally it would be hoped that the orientation would lead to declines in most of these tactics. However, the reduction in the use of ones that are the most ineffective can be viewed as a positive sign. There was no change in the proportion of officers who reported using none of the tactics. This is shown in Table 57.

TABLE 57

NO ATTEMPTS TO AVOID
ARRESTING SUSPECTED DUI
(PERCENTS)

	No Attempts	Some Type Of Attempt	
Wave I	16.1 (↔) 56.1 (↓)	83.9 49.0	143
Wave II	12.6 (↔) 43.9 (↓)	87.4 51.0	143
	41	245	286

Chi-Square = N.S.

The officers were also asked to identify the types of persons they gave warnings to during their last week of patrol activity. It will be recalled that Wave I analysis indicated that the exercise of discretion on the part of police officers was primarily a function of exposure to DUI suspects and not related to inexperience. Of the twelve types of suspects who could be identified, three had sufficient cases to permit valid statistical comparisons. They were a well-dressed polite male, a working man who had been with the boys to celebrate, and a "teenage kid." The only significant change between the Waves was a sharp drop in the number reporting having given a warning to a "well-dressed, polite" male, although a relatively small number of officers were involved. This is shown in Table 58. No other changes were observed including the number who reported not issuing any warnings as shown in Table 59.

TABLE 58

WHETHER GAVE WARNING TO WELL-DRESSED
MALE DURING LAST WEEK OF PATROL
DUTY BY WAVE
(PERCENTS)

	Yes	No	
Wave I	11.2 (↔) 84.2 (↓)	88.8 47.6	143
Wave II	2.1 (↔) 15.8 (↓)	97.9 52.4	143
	19	267	286

Chi-Square (8.12 w 1 D.F.) = .004

TABLE 61

ADEQUACY OF INFORMATION
RECEIVED ABOUT DUI BY WAVE
(PERCENTS)

	None Received	Less Than Needed	Unclear	About Right	More Than Needed	
Wave I	1.4 (→) 50.0 (↓)	20.3 54.7	4.9 77.8	67.8 47.5	5.6 53.3	143
Wave II	1.4 (→) 50.0 (↓)	16.9 45.3	1.4 22.2	75.4 52.5	4.9 46.7	142
	4	53	9	204	15	285

Chi-Square (3.8 \leq 4 D.F.) - N.S.

Since there is evidence that the way the court treats DUI suspects can have a sizeable impact on willingness of officers to make DUI arrests, officers in both waves were asked whether the courts' handling of DUI referrals had any influence on their decision to make DUI arrests. While no significant changes were observed between the two waves, a definite shift occurred between the proportion answering unsure and those answering yes. More second wave officers felt court referrals had a negative impact on arrests than was true in the first wave. This is presented in Table 62.

TABLE 62

DO COURT PROCEDURES
INFLUENCE WILLINGNESS TO ARREST
BY WAVES

	No	Unsure	Yes	
Wave I	46.4 (→) 52.4 (↓)	21.4 55.6	32.1 43.3	140
Wave II	41.5 (→) 47.6 (↓)	16.9 44.4	41.5 56.7	142
	124	54	102	282

Chi-Square (2.8 \leq 2 D.F.) - N.S.

Arrests and Contacts

One of the major dependent variables in the police attitude study was level of DUI activity. Officers were asked to estimate the number of contacts and arrests they made over the preceding week and the preceding six months. Arrest and contact data over the six month period proved more useful analytically.

Comparisons of both the six month arrest and the six month contact data by wave showed that while differences between contact data were significant, differences between the six month arrest data were not. T' Tests on both six month contact and arrest measures shown in Table 63 indicate significant declines between Wave I and Wave II responses with respect to contacts. The significant decline in contacts unaccompanied by a significant decline in arrests indicates the officers are making fewer "false" stops than they did prior to the orientation. Data from Wave I showed that 65 percent of DUI contacts resulted in arrests while Wave II data showed that 71 percent of the officers DUI contacts resulted in arrests.

TABLE 63

T' TEST COMPARISONS OF SIX MONTH ARREST AND CONTACT DATA BY WAVE (PERCENTS)

Variable	Wave	Mean	Standard Deviation	Mean Difference	Standard Deviation	T Value	Degree Of Freedom	2 Tailed Probability
Number OF Contacts	Wave I	3.32	1.89	.51	2.69	2.25	136	.02
	Wave II	2.80	1.77					
Number OF Arrests	Wave I	2.15	1.29	0.18	1.77	0.91	138	.36
	Wave II	2.01	1.16					

The officers were also asked two additional questions relating to levels of DUI activity. The first, which was a measure of knowledge, asked the officers in each of the Waves to estimate the number of DUI arrests made in Fairfax County either during 1974 or 1975. The second asked them to compare their level of arrests to those of fellow officers. The results of both comparisons, shown in Tables 64 & 65 were not significant, although officers in the Second Wave tended to have slightly more accurate perceptions of Fairfax County arrest rates than those in the First Wave.

TABLE 64

LEVEL OF DUI ARRESTS IN FAIRFAX COUNTRY 1974 OR 1975 BY WAVE (PERCENTS)

	Less Than 2000	2000 to 3000	More Than 3000*	
Wave I	37.4 (↔)	35.0	26.6	139
	49.1 (↓)	58.1	44.0	
Wave II	39.4 (↔)	26.3	34.3	137
	50.9 (↓)	41.9	56.0	
	106	86	84	276

Chi-Square (3.4 w 2 D.F.) = N.S.
 * Correct Answer

TABLE 65

ARRESTS COMPARED TO
THOSE OF OTHER OFFICERS
(PERCENTS)

	Fewer	Same	More	
Wave I	24.3 (→) 50.7 (↓)	58.6 49.7	17.1 49.0	140
Wave II	23.4 (→) 49.3 (↓)	58.9 50.3	17.7 51.0	141
	67	165	49	281

Chi-Square (.04 \leq 2 D.F.) = N.S.

A final item in the arrests and contacts section concerned the officer's feelings on whether their immediate supervisor wanted the officer to have fewer, more or the same number of arrests or does not care. No changes were observed between the First and the Second Wave responses.

Processing DUI Arrests

The final section is directed toward various facets of the DUI arrest process. Included are items on time - time to the nearest testing facility and the time required to process a DUI arrest - and three items on the use of preliminary testing equipment. Nearly 29 percent of the First Wave officers reported it took them less than 15 minutes to reach the test facility, while almost twice that number reported having to travel between 15 and 30 minutes. This remained essentially unchanged in the Second Wave.

Significant differences were uncovered with respect to the second time related variable which was the length of time to completely process a DUI suspect. The length of time required to complete processing increased sharply from the First to Second Wave as is shown in Table 66. The reason for this change, which is opposite to what would have been expected, is not entirely clear although it may relate to changes in the police substations between the First and the Second Wave.

TABLE 66

TIME REQUIRED TO PROCESS
A DUI BY WAVE
(PERCENTS)

	Less Than 30 Minutes	30 To 60 Minutes	61 to 90 Minutes	More Than 90 Minutes	
Wave I	28.1 (→) 73.6 (↓)	43.9 44.9	21.6 40.0	6.4 50.0	139
Wave II	9.8 (→) 26.4 (↓)	52.4 55.1	31.5 60.0	6.3 50.0	143
	53	136	75	18	282

Chi-Square (17.2 \geq 5 D.F.) = .004

There was considerable variation in the utilization of preliminary screening equipment among the officers. Approximately half the First Wave officers who were familiar with such equipment had used only one preliminary screening device, while the other half reported they had used two or more. The proportion in the two groups shifts considerably between the two Waves with a sizeable increase in those with experience with two or more types of preliminary testing equipment. This is shown in Table 67.

TABLE 67
UTILIZATION OF PRELIMINARY TESTING
EQUIPMENT BY WAVE
(PERCENTS)

	None	One Type	Two or More	
Wave I	4.2 (→) 42.9 (↓)	49.0 57.9	46.9 44.4	143
Wave II	5.6 (→) 57.1 (↓)	35.7 42.7	58.6 55.6	143
	14	121	151	286

Chi-Square (5.1 w 2 D.F.) = .07

The next two equipment related items were concerned with the practical utilization of preliminary testing equipment. One asked officers the percentage of suspects on whom they used the balloon test, while the second asked what they did if results of the prescreening test was negative. There was a moderate but not significant drop off in the proportion of Second Wave officers who gave balloon tests. The decline, shown in Table 68, is compatible with the decrease uncovered with respect to level of DUI activity. No changes between the Waves were observed with respect to the second item on actions taken if the results of the prescreening test on a DUI suspect was negative. About one-third percent in each Wave let the suspect go, another third had a blood or breath test administered if the suspect appeared very drunk and about a quarter would charge the suspect with a non-alcohol related offense.

TABLE 68
PROPORTION OF OFFICERS
WHO GIVE BALLOON
TEST BY WAVE
(PERCENTS)

	0 - 39 Percent	40 - 79 Percent	80 - 100 Percent	
Wave I	27.2 (→) 43.5 (↓)	25.7 43.7	40.0 56.1	136
Wave II	33.5 (→) 56.5 (↓)	31.4 56.3	34.9 43.9	143
	85	80	114	279

Chi-Square = 4.18 w 2, D.F. = N.S.

VI. SUMMARY OF WAVE II FINDINGS

Approximately two-thirds or 143 of the 212 officers completing questionnaires in Wave I returned questionnaires during the second wave. In order to statistically compare responses from the two waves, 68 of the original 212 officers were randomly eliminated. 'T' Tests were conducted to determine if there were any significant differences in the characteristics of respondents in Wave I and Wave II. The officers did not differ in age, education, years of experience or weight. The officers did differ significantly in "time on traffic duty" but this is probably a function of time between the first and second wave.

Responses from the first wave were statistically compared to responses in the second wave in order to determine if the police orientation influenced 1) knowledge of alcohol and driving; 2) habits and attitudes toward drinking; 3) attitudes toward drinking and driving; 4) attitudes toward ASAP; 5) patrol activity; 6) processing of DUI suspects; and/or 7) utilization of alcohol testing equipment.

There were no significant changes in the officers' overall knowledge about alcohol and driving or their responses to any of the individual items concerned with knowledge. It is evident from the data that the orientation did not affect officers' knowledge levels six months later. However, it is not possible to determine if the officers simply forgot the information during the six months after attending the orientation, or if they never learned it at all.

Officers' personal drinking habits and attitudes toward drinking showed no significant change from Wave I to Wave II. Since the orientation was primarily concerned with DUI information and procedures the lack of significant changes in this area is not surprising.

Significant differences between Wave I and Wave II were found in officers' perceptions of what was the best helper for the problem drinker. After attending the orientation, officers were more likely to indicate treatment services or ASAP as the best helper for problem drinkers and less likely to indicate professional help or "other." No significant changes occurred in the officers' perceptions about the best way to keep drinking drivers off the highway; their perceptions about the types and ages of persons who drive under the influence; or their responses to the types of actions that would most likely lead to a decline in alcohol related traffic accidents.

In the second wave of the survey, officers were more likely to indicate the main function of ASAP was to help get problem drinkers into treatment or rehabilitation programs and less likely to feel ASAP's primary function was to get drunk drivers off the road. No other significant changes between Wave I and II were found in the area of attitudes toward ASAP.

A number of items on the questionnaire were concerned with patrol activity. Included in this section were reasons for stopping and testing a suspected DUI, tactics used to avoid making a DUI arrest and origin of information about DUI procedures and laws. A positive change, though only weakly significant, was found in an item concerned with whether the officer knew he would test a suspect when he made the stop. A larger proportion of the officers in Wave II stated they knew they would test a suspect when they stopped him. This change suggests a greater awareness of the driving behavior of intoxicated drivers and would hopefully lead to a lower percentage of false stops. Significant changes also occurred in the use of tactics

to avoid arresting a suspect. The use of two tactics, encouraging the suspect to sleep it off somewhere or to drink black coffee declined significantly. The only other significant change in patrol activity items related to the types of persons officers gave only a warning to during their last week of patrol activity. Significantly fewer officers on the second wave indicated they would issue only a warning to a "polite, well-dressed male."

One of the major dependent variables in the study was level of DUI activity. Comparisons of the six month contact and arrest data by wave showed that while number of contacts decreased significantly between waves, number of arrests did not. This supports the previously discussed finding that officers are more aware of the driving behavior of intoxicated drivers and thus making fewer "false" stops.

The final section of items compared by wave concerned the processing of DUI arrests. A significant increase was found in the length of time required to completely process a DUI suspect. The reason for this change is not entirely clear although it may relate to shifts in availability of technicians to administer the blood or breath test. No significant differences between waves were found in the other items directed at processing of DUI suspects. These items were concerned with familiarity and utilization of preliminary breath testing equipment. Though differences were not significant, changes were in the anticipated direction, i.e. more familiarity with preliminary screening devices.

VII. CONCLUSIONS

A major goal of the study was to establish whether relationships exist between the personal characteristics of police officers, their knowledge of and attitudes toward alcohol and driving and their involvement in DUI patrol and arrest. Research in the area is so limited that the development of detailed hypotheses seemed premature. Under the circumstances, a strategy that involved a search for relationships between variables seemed the most productive approach.

The crosstabular analyses of Wave I responses uncovered few significant relationships between variables. Only one dependent variable exhibited strong significant relationships. This variable, DUI activity, was related to knowledge of alcohol and driving, attitudes toward drinking, age and years as a police officer, and the number of serious or fatal alcohol related accidents the officer had handled.

The lack of significant findings from Wave I suggested that DUI apprehension is a complicated process that cannot be explained in simple one to one relationships and more precise and meaningful measures of the DUI process must be developed. Given problems of candidness in surveys of police officers and the normal difficulties most respondents have in accurately recalling past behavior, self-reported items, such as number of contacts or arrests within the last week or six months, may not produce very useful insights. Inclusion of actual arrest data from police records is extremely important, although there are practical and political problems with linking it to officer characteristics and patrol behavior. More personal evaluative methods such as participant observation or in-depth interviewing may be more helpful.

The survey measured officers' knowledge of alcohol and driving and their attitudes toward drinking. The literature does not indicate any previous careful efforts in this area. The importance of general police experience and of direct experience with alcohol related accidents in explaining level of DUI activity suggests areas that should be carefully explored to uncover the underlying dimensions involved.

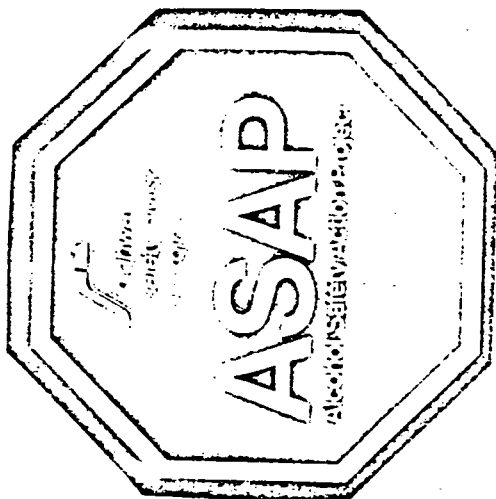
The second goal of the study was to determine what, if any, effect an ASAP orientation for police officers would have on their 1) knowledge of alcohol and driving; 2) habits and attitudes toward drinking; 3) attitudes toward drinking and driving; and 4) utilization of alcohol testing equipment.

While the majority of the variables showed no significant differences between the first and second wave of the survey, there were a number of items that reflected an increased understanding of ASAP goals, the operations of the countermeasures, and the DUI arrest process. The orientation did appear to change officers' perceptions of the function of ASAP and to increase the likelihood they would indicate ASAP or treatment services as the best help for problem drinkers. A significant decline in the use of two tactics (encouraging a suspect to sleep it off or to drink black coffee) implies a greater understanding of the drunk driving problem. Significant differences in responses to a number of items on the questionnaire also indicated that officers were more confident in their decisions and made fewer "false stops" after attending the orientation.

Significant differences between Wave I and II variables were not found in the areas of knowledge of alcohol and driving, processing of DUI suspects, or utilization of alcohol testing equipment. However, it is not possible to determine from the data whether the orientation was ineffective in these areas or other factors during the six months between Wave I and Wave II confounded the results. For example, during the time between the ASAP orientation and the administration of the follow-up questionnaire, the County built new police substations and redivided the patrol areas. Factors such as this may have influenced officers' DUI patrol activities. Due to the practical limitations on the study design it was not possible to control for events which may have occurred during the six months following the orientation.

In sum, the survey provides extensive descriptive material concerning officers' attitudes toward drinking alcoholic beverages, their knowledge about alcohol and their perception of the ASAP program. Less was discovered about relationships among variables than was anticipated suggesting the need for further clarity in identification of variables. Police activities are the cornerstone of all other ASAP activities and more study in this area is merited.

APPENDIX A



POLICE ORIENTATION PROGRAM

9/22/75 - 9/30/75

8 HOUR COURSE

GENERAL MOTORS TRAINING CENTER
FAIRFAX, VIRGINIA

PRESENTED BY:

Rene Alberts, Fairfax ASAP Probation Officer
Elaine Boyle, Supervisor, ASAP Diagnostic and Evaluation Unit
Norma Capps, Fairfax ASAP Secretary
Robert Chambers, Investigator, Fairfax Police Department
Dr. Susan Clark, ASAP Evaluation Co-ordinator
Jim DeSouza, Fairfax ASAP Probation Officer
Peg Jordan, Fairfax ASAP Diagnostic and Evaluation Unit
Helen Kastenbaum, Fairfax ASAP Diagnostic and Evaluation Unit
Dr. Alan Mackintosh, Family Practice Residency, Fairfax Hospital
Marie Nolan, Fairfax ASAP Administrative Assistant
Jettie North, Director of Education, Council on Alcoholism for Fairfax County
Ralph Paton, Director, Council on Alcoholism for Fairfax County
Linda Pemberton, Fairfax ASAP Research Analyst
Jerry Phillips, Fairfax Assistant Commonwealth Attorney
Richard Rocchio, Supervisor, Fairfax ASAP Probation Office
Jan Schwartz, Fairfax-ASAP Diagnostic and Evaluation Unit
Dee Sher, Fairfax ASAP Probation Officer
John Spurger, Fairfax ASAP Project Manager
John Tucker, ASAP Coordinator, Fairfax Police Department
Dean Wolf, Fairfax ASAP Probation Officer

- | | | | |
|----|--|----------------|--|
| 1. | <u>INTRODUCTION</u> | 8:30 - 9:45 | John Sparger/Dr. Susan Clark |
| 2. | SCREENING & CLASSIFICATION: | | |
| | a) ASAP Diagnostic and
Evaluation Unit | 9:45 - 10:15 | Elaine Boyle & staff |
| | b) ASAP Probation Office | 10:15 - 10:45 | Richard Rocchio & staff |
| 3. | REHABILITATION & TREATMENT | 10:45 - 11:15 | Ralph Paton/Jettie North |
| | Film | 11:15 - 12:15 | Father Martin's Chalk Talk
Part I |
| | LUNCH | 12:15 - 1:00 | |
| 4. | ALCOHOL & THE HUMAN BODY | 1:00 - 1:45 | Dr. Alan MacIntosh |
| | <u>INTRODUCTION</u> - Afternoon session | | John Sparger |
| 5. | POLICE OFFICERS ATTITUDES
AND THE DWI OFFENDERS | | |
| 6. | IDENTIFICATION OF THE
DWI OFFENDER | (2 hour block) | Sgt. Paul Downey
Corp. John Tucker
Officer Robert Chambers |
| 7. | APPREHENDING THE DWI OFFENDER | | |
| 8. | STATUTORY LAW & JUDICIAL
PROCESS | 4:15 - 5:00 | Jerry Phillips |

APPENDIX B

PART I
INITIAL ASAP POLICE SURVEY

OFFICE
USE
ONLY

I. BACKGROUND

- | | | |
|--|-----|-----|
| 1. What is your age? (Fill in) _____ | () | () |
| 2. What is your sex? (Check One) | 6 | 7 |
| () 1. Male | | |
| () 2. Female | | () |
| | | 8 |
| 3. What is your current marital status? (Check One) | | |
| () 1. Married | | |
| () 2. Never Married | | |
| () 3. Separated | | |
| () 4. Divorced | | () |
| () 5. Widowed | | 9 |
| () 6. Married, Spouse Absent | | |
| 4. Have you ever been divorced or separated? (Check One) | | |
| () 1. Yes | | () |
| () 2. No | | 10 |
| 5. What is your color or race? (Check One) | | |
| () 1. Black or Negro | | |
| () 2. White or Caucasian | | |
| () 3. Other | | () |
| | | 11 |
| 6. What is your religious affiliation? (Check One) | | |
| () 1. Protestant | | |
| () 2. Roman Catholic | | |
| () 3. Jewish | | () |
| () 4. Other | | 12 |
| 6a. If your religious affiliation is Protestant or other,
are you a member of any of the following? (Check One) | | |
| () 1. Southern Baptist | | |
| () 2. Adventist | | |
| () 3. Church of God | | |
| () 4. Mormon | | |
| () 5. Jehovah's Witness | | () |
| () 6. Methodist | | 13 |
| () 7. United Church of Christ | | |
| () 8. Other | | |

7. Please check the highest level of formal education you completed. Do not include military training, police academy, or other specialized vocational or technical schools not granting a degree.

- 1. GED or High School
- 2. 1 Year College
- 3. 2 Year College
- 4. 3 Year College
- 5. 4 Year College
- 6. 5 Year College
- 7. 6 Year College
- 8. 7 or more Year College

()
14

8. Please circle the number of years of specialized training you have completed including military training, police academy or other specialized vocational or technical schools not granting a degree. (Circle One)

- 0 1 2 3 4 5
- 6 7 8 or more

()
15

9. When you grew up, in what part of the country did you live most of the time? (Check One)

- 1. New England (MN., N.H., Vt., Mass., R.I., Conn.)
- 2. Middle Atlantic (N.Y., N.J., Pa.)
- 3. East North Central (Oh., Ind., Ill., Mich., Wisc.)
- 4. West North Central (Minn., Io., Mo., N.D., S.D., Nebr., Ka.)
- 5. South Atlantic (Del., Md., D.C., W.Va., N.C., S.C., Ga., Fla.)
- 6. Virginia
- 7. East South Central (Ky., Tenn, Alab., Miss.)
- 8. West South Central (Ark., La., Okl., Tex.)
- 9. Mountain (Mont., Ida., Wyo., Colo., N. Mex., Ariz., Utah, Nev.)
- 10. Pacific (Wash., Oreg., Calif., Alsk., Hawa.)
- 11. Military - Overseas
- 12. Outside of U.S.

() ()
16 17

10. When you grew up, in what size area did you live most of the time? (Check One)

- 1. Under 2,500 persons
- 2. Between 2,500 and 49,999 persons
- 3. Between 50,000 and 249,999 persons
- 4. Between 250,000 and 499,999 persons
- 5. Between 500,000 and 1 million persons
- 6. Over 1 million

()
18

11. When you grew up, in what type of area did you live most of the time? (Check One)

- 1. Central or inner-city of metropolitan area
- 2. Suburban area
- 3. Rural non-farm
- 4. Rural - farm

()
19

12. In what size area do you live now? (Check One)

- 1. Under 2,500 persons
- 2. Between 2,500 and 49,999 persons
- 3. Between 50,000 and 249,999 persons
- 4. Between 250,000 and 499,999 persons
- 5. Between 500,000 and 1 million persons
- 6. Over 1 million persons

()
20

13. In what type of area do you live now? (Check One)

- 1. Central or inner-city of metropolitan area
- 2. Suburban area
- 3. Rural - non-farm
- 4. Rural - farm

()
21

14. How many years have you been a police officer?
(Circle One)

- 1 or less 2 3 4 5 6 7 8 9
- 10 11 12 13 14 15 16 or more

() ()
22 23

15. If you added together all the time you have been on traffic duty,
how much time would that come to? (Check One)

- 1. 0 - 6 months
- 2. 7 - 12 months
- 3. 13 - 18 months
- 4. 19 - 23 months
- 5. 2 - 3 years
- 6. 3 - 4 years
- 7. 4 - 5 years
- 8. Over 5 years

()
24

16. How long has it been since you were last assigned to traffic
duty? (Check One)

If currently assigned to traffic duty,
check here

- 1. Less than 6 months
- 2. 6 months to 1 year
- 3. 1 to 2 years
- 4. 2 to 3 years
- 5. 3 to 4 years
- 6. 4 or more years

()
25

17. How many automobile accidents involving serious injuries or fatalities
where DWI was suspected have you personally handled in the past year?
(Fill In) _____

() ()
26 27

18. Do you plan to continue your career as a police officer?

- 1. Yes
- 2. No

()
28

18a. If yes, what is the highest rank you hope to attain? (Fill In) _____

()
29

II. THE FOLLOWING QUESTIONS ARE ABOUT YOUR INFORMATION AND OPINIONS CONCERNING SOME OF THE EQUIPMENT YOU USE, ABOUT ALCOHOL, AND ABOUT DWI LAWS. WE HOPE YOUR ANSWERS WILL HELP US FIND AREAS WHERE MORE ATTENTION IS NEEDED.

19. When alcohol is consumed and absorbed faster than it is used up, its effects will: (Check One)

- 1. Decrease
- 2. Increase and build up
- 3. Disappear
- 4. None of the above

()
30

20. The best way to remove alcohol from the bloodstream is by: (Check One)

- 1. Drinking black coffee
- 2. Drinking plenty of other fluids after drinking alcoholic beverages
- 3. Breathing cold, fresh air
- 4. Waiting

()
31

21. Legal presumptive level of intoxication in Virginia requires a BAC level of: (Check One)

- 1. .05
- 2. .07
- 3. .10
- 4. .12
- 5. .15

()
32

22. At what BAC level does the driving of the normal driver become seriously impaired? (Check One)

- 1. .05
- 2. .06
- 3. .07
- 4. .08
- 5. .09
- 6. .10
- 7. .11
- 8. .12

()
33

23. What is your weight? (Fill In) _____ lbs.

() () ()
34 35 36

24. As a police officer, what do you think are the three major functions of ASAP? RANK the top three with 1 as the highest, 2 as the second highest, and 3 as the third highest. Make sure there is a number before 3 items.

- To get "drunk drivers" completely off the road
- To teach the public about the dangers of driving while drinking
- To increase the numbers of persons arrested for drunk driving
- To get the problem driver into rehabilitation and treatment programs
- To reduce the number of alcohol-related accidents
- To reduce recidivism among those who have completed ASAP
- To reduce the amount that people drink

()
37
()
38
()
39

25. Which of the following equipment does your station have?
(You may check more than one).

- 1. Balloon kits or Alcoalyzer to test breath alcohol content
- 2. Alcohol Sensor
- 3. Borg-Warner Alcohol Level Evaluation Test (ALET)
- 4. None of the above

()
40

26. Which of the following equipment have you personally used?
(Check all those you have used).

- 1. Balloon kits or Alcoalyzer to test breath alcohol content
- 2. Alcohol Sensor
- 3. Borg-Warner Alcohol Level Evaluation Test (ALET)
- 4. None of the above

()
41

27. What does "driving under the influence" mean? _____

()
42

28. Do you generally read "Miranda rights" to persons stopped for DWI?

- 1. Yes
- 2. No

()
43

28a. If yes, do you read "Miranda rights" before or after administering the pre-arrest screening device?

- 1. Before
- 2. After
- 3. Do not administer pre-arrest screening device

()
44

29. How many 12 ounce glasses/cans of beer would YOU have to drink in two hours to be legally intoxicated? (Circle the Number)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more () ()
45 46

III. THE FOLLOWING 16 QUESTIONS CONCERN THE DRINKING OF ALCOHOLIC BEVERAGES. USE THESE EQUIVALENTS TO ANSWER THE QUESTIONS:

One Drink = One 12 oz. Beer or 1 oz. liquor or 4 oz. wine.

30. Approximately what percentages of the people you work with do you think drink alcoholic beverages at least occasionally? (Circle One)

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100% () ()
47 48

31. Approximately what percentages of your supervisors do you think drink alcoholic beverages at least occasionally? (Circle One)

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100% () ()
49 50

32. Approximately what percentages of your friends drink alcoholic beverages at least occasionally? (Circle One)

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100% () ()
51 52

33. What would you estimate is the greatest number of drinks of alcoholic beverages any of your supervisors might drink at any one continuous period of time? (Circle One)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more () ()

34. What would you estimate is the greatest number of drinks of alcoholic beverages any of your co-workers might drink at any one continuous period of time? (Circle One)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more () ()
53 54

35. What would you estimate is the greatest number of drinks of alcoholic beverages any of your friends might drink at any one continuous period of time? (Circle One)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more () ()
55 56

36. Are non-alcoholic beverages usually available at parties you attend?

() 1. Yes
() 2. No

()
59

37. Rank order the persons with whom you drink most often. Place a 1 before the person with whom you drink most often, and a 2 before the second person, and so on, from 1 to at least 5. Make sure there is a number in at least 5 spaces. If you do not drink at all, check here / /.

- Spouse or opposite sex companion
- Friends
- Casual drinking companions
- Co-workers
- Alone
- Other _____ (Specify)

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38. Rank order the place where you drink most often. Place a 1 before the place where you drink most often, a 2 before the second and so on from 1 to at least 5. Make sure there is a different number in at least 5 spaces. If you do not drink at all, check here

- Own home
- Friend's home
- Party
- Bar or lounge
- Restaurant
- Other _____ (Specify)

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39. How many drinks might you have at any one party? (Circle One)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more

() ()
72 73

40. Approximately how often do you drink? (Check One)

- () 1. Daily
- () 2. Three times a week
- () 3. Twice a week
- () 4. Once a week
- () 5. Once a month
- () 6. Less than once a month
- () 7. Do not drink at all

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74

41. How often do you drink after the end of a shift? (Check One)

- 1. Daily
- 2. Three times a week
- 3. Twice a week
- 4. Once a week
- 5. Once a month
- 6. Less than once a month
- 7. Never
- 8. Do not drink at all

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75

42. Did your mother or father or person who raised you drink heavily; for example, four or more drinks every evening?

- 1. Yes
- 2. No

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43. Most people who go to parties away from home drink alcoholic beverages. If you have had several drinks at a party, do you ever seriously consider not driving home?

- 1. Yes
- 2. No

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43a. If yes, what are the main reasons that might influence you not to drive. Rank three, with 1 most important, 2 the 2nd most important and 3, third most important. Make sure there is a different number in 3 spaces.

___ I feel very high or uncoordinated

___ My spouse or friend prefers to drive

___ I prefer to avoid an argument with my spouse or friends

___ A police officer should set a good example for others

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7

___ I believe drinking and driving do not mix

()
8

___ I am afraid of being stopped

___ Other (Specify) _____

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44. Do you vividly recall the first time you drank an alcoholic beverage?

- 1. Yes
- 2. No

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45. About what age were you when you took your first alcoholic drink? (Fill In) _____

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46. Which of the following best describes your origin or descent?
(Check One)

- 1. British, Scotch, Welsh
- 2. Irish
- 3. German
- 4. French
- 5. Italian
- 6. Other European origin
- 7. Middle Eastern
- 8. Asian
- 9. African
- 10. Spanish-speaking, Mexican, Chicano, Puerto Rican, Caribbean
- 11. Other (Specify) _____

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13 14

47. Who gave you the most comprehensive information about special policies or procedures to be followed in apprehending, testing, and charging DWI suspects? (Check One)

- 1. Supervisors
- 2. Police academy instructors
- 3. Other officers
- 4. ASAP officers
- 5. Found it out on my own
- 6. General knowledge
- 7. No information given

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48. The following may have an influence on your decision whether to have a blood or breath test administered to a DWI suspect you have stopped. Rank the three you use most frequently, with 1 the most frequent, 2 the second most frequent and 3 the third most frequent. Make sure there is a different number in 3 spaces.

- ___ Odor of alcohol on breath
- ___ Fumbling for license
- ___ Stumbling when getting out of car
- ___ Thick or slurred speech
- ___ Balloon test
- ___ Bloodshot eyes
- ___ Use of foul language
- ___ Uncoordinated; for example, cannot walk a straight line
- ___ Making excuses for condition or driving

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49. When you stop suspects, approximately what percentage do you give balloon tests to? (Circle One)

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100%

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19 20

50. Approximately what percentage of the time does the balloon test fail to register at all? (Circle One)

Check here if you have never used the balloon test / /.

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100%

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21 22

51. If the balloon test fails to register at all, what do you generally do? (Check One)

Check here if you have never used the balloon test / /.

- () 1. Let the suspect go
- () 2. Have blood or breath analysis administered if he or she appears very drunk
- () 3. Have blood or breath analysis administered even if he or she appears only moderately drunk
- () 4. Have blood or breath analysis administered because he or she may have a medical problem
- () 5. Charge him or her with a non-alcohol related offense

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52. Has the failure of equipment to function ever caused you not to make an arrest for DWI? (Check One)

- () 1. Yes
- () 2. No

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53. On how many occasions over the last month you were on duty did equipment failure cause you not to make a DWI arrest?
(Fill In) _____

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54. How often in the last month of duty did you think you had stopped a suspect for DWI and felt he was driving under the influence of legally or illegally procured drugs instead of alcohol?
(Fill In) _____

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27 28

55. When you stop a suspect for DWI, and the balloon test fails to register, but you feel he is under the influence of drugs, do you usually arrest him or her? (Check One)

- () 1. Yes
- () 2. No

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56. Do regulations require you to handcuff every suspect arrested by you for DWI? (Check One)

- () 1. Yes
- () 2. No

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57. When you handcuff a suspect, do you do so before or after his or her BAC has been determined by chemical testing? (Check One)

- () 1. Before a Breathalyzer or blood sample is taken
- () 2. After a Breathalyzer or blood sample is taken
- () 3. Have never handcuffed a DWI suspect

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31

58. What is your most usual reason for not arresting a suspect you think is under the influence of drugs? (Check One)

- 1. Impossible to get evidence
- 2. Impossible to get conviction
- 3. Lack of court support
- 4. Decided to let suspect go for other reasons

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32

59. How many DWI-suspected contacts did you make during your last week on duty?

(Fill In) _____

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60. Approximately how many DWI suspected contacts did you make during the 6 month period from March through December 1975?

- 1. 0 - 4
- 2. 5 - 9
- 3. 10 - 14
- 4. 15 - 19
- 5. 20 - 24
- 6. 25 - 29
- 7. 30 or more

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61. How many arrests for DWI did you make during your last week on duty?

(Fill In) _____

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62. Approximately how many arrests for DWI did you make during the 6 month period from March through December 1975?

- 1. 0 - 4
- 2. 5 - 9
- 3. 10 - 14
- 4. 15 - 19
- 5. 20 - 24
- 6. 25 - 29
- 7. 30 or more

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36

63. How likely are you to stop a DWI suspect about 30 minutes from the end of duty? (Check One)

- 1. Very likely
- 2. Not very likely
- 3. Same as at other times on duty
- 4. Depends on number of stops or arrests already made
- 5. Depends on situation

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37

64. Could you give us an idea of some of the reasons that you might stop a car for suspected DWI. Please rank the three items in order of importance to you, using 1 for the most likely reason you would stop a suspect, 2 for the second most likely reason, and 3 for the third most likely reason. Be sure to put a different number in 3 spaces.

___ Driver clipping the yellow line

___ Vehicle is a van

___ Appearance or types of persons in car or van

___ Driver tosses bottle or can from open window of car

___ Car speed is considerably slower than traffic flow

___ Driver is speeding

___ Driver has not turned on car lights after dark

___ Driver starts car jerkily from stopped position

___ Driver continuously veers onto shoulder of roadway

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65. When you stop a suspect for DWI, do you generally know beforehand whether you are going to test him or her? (Check One)

() 1. Yes

() 2. No

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41

66. Was the information you received about the law with respect to DWI arrests -- (Check One)

() 1. About what you needed

() 2. More than you needed

() 3. Less than you needed

() 4. Unclear or confusing

() 5. No information received

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42

67. Do any of the following conditions have an influence on whether you would stop a suspect for DWI? (Check One under each heading)

A. Very Cold Weather

() 1. Yes

() 2. No

B. Icy or Snowy Weather

() 1. Yes

() 2. No

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43

C. Very Hot Weather

() 1. Yes

() 2. No

D. Rain

() 1. Yes

() 2. No

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68. How frequently do you handcuff men you arrest for DWI?

- 1. Never
- 2. Seldom
- 3. Sometimes
- 4. Often
- 5. All the time

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47

69. How frequently do you handcuff women you arrest for DWI?

- 1. Never
- 2. Seldom
- 3. Sometimes
- 4. Often
- 5. All the time

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48

70. What is the main reason you would not handcuff a woman?

If you would always handcuff a woman, check here.

- 1. Seems unmanly
- 2. Seldom if ever necessary
- 3. Dislike physical contact
- 4. Concern about accusations of improper conduct
- 5. None of the above

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49

71. Which of the following do you think would be the best way to help the problem drinker overcome his or her drinking problem, and ought to be used? (Check One)

- 1. Force them to take medicines which make them sick if they drink
- 2. Force them to drink alcohol with medicines which make them vomit, until they get sick anytime they try to drink
- 3. Keep them in jail for a good, long period of time
- 4. Force them to take medicines with liquor which paralyzes them for a period of time and makes drinking so unpleasant they won't want to drink again
- 5. Make them take drinks, and use electric shock when they do
- 6. Other (Specify) _____

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72. The three best helpers for the problem drinking driver are: (Put a 1 for the most important, 2 for the second most important, 3 for the third most important; only 3 answers are required).

- 1. Medical doctor
- 2. Psychiatrist
- 3. Social worker
- 4. Priest or minister
- 5. Alcoholics Anonymous
- 6. Good law enforcement
- 7. Judges who enforce the law strictly
- 8. Marked patrol cars
- 9. Bird-dogging taverns and bars
- 10. Education in elementary and high school
- 11. Special education programs for those arrested for DWI
- 12. Jail
- 13. Mental health clinic
- 14. Mental hospital
- 15. Willpower
- 16. ASAP
- 17. Understanding husband or wife
- 18. Hospital alcohol treatment center

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51 52

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73. The best way to keep the drinking driver off the road is: (Check One)

- 1. Jail sentence
- 2. Suspend license
- 3. Stiff fine
- 4. Put their names in the newspaper
- 5. ASAP Program
- 6. Other rehabilitation programs
- 7. Impossible to keep drinking drivers off the road

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57

74. On the average, how many DWI arrests would you estimate a typical patrolman makes during a week of patrol duty? (Fill In) _____

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58 59

75. On the average, how many DWI contacts would you estimate a typical patrolman makes during a week of patrol duty? (Fill In) _____

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60 61

76. In 1974, approximately how many DWI arrests were made in Fairfax County? (Check One)

- 1. Under 101
- 2. 101 to 500
- 3. 501 to 1,000
- 4. 1,001 to 2,000
- 5. 2,001 to 3,000
- 6. Over 3,000

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62

77. Do you think you make more, about the same, or fewer DWI arrests than your fellow officers? (Check One)

- 1. More
- 2. About the same
- 3. Fewer

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78. If you think you make either more or fewer DWI arrests than your fellow officers, why is this so? _____

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64 65

79. Do you think your immediate supervisor would like to see you make more, about the same, or fewer DWI arrests? (Check One)

- 1. More
- 2. About the same
- 3. Fewer
- 4. I am unaware of supervisor's opinion

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66

80. Do you prefer ASAP to regular patrol duty? (Check One)

- 1. Yes
- 2. No

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67

80a. If yes, do you prefer ASAP duty because: (Check One)

- 1. The money is better
- 2. Greater approval from supervisor
- 3. Easier patrol duty
- 4. Like to drive the van
- 5. Helps my career

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68

81. Would you prefer ASAP to other duty than your regular shift if both paid the same? (Check One)

- 1. Yes
- 2. No

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69

82. Do you dislike ASAP duty, but take it for the extra money? (Check One)

- 1. Yes
- 2. No

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83. When you decide to have blood or breath analysis administered, how long does it usually take to reach the testing facility?
(Check One)

- 1. Under 14 minutes
- 2. 15 - 29 minutes
- 3. 30 - 44 minutes
- 4. 45 - 59 minutes
- 5. 60 - 74 minutes
- 6. 75 - 89 minutes
- 7. 90 - 120 minutes
- 8. Over two hours

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71

84. How long on the average does it take you to stop, test, charge a suspect for DWI, and take him or her in? (Check One)

- 1. Under 30 minutes
- 2. 31 minutes to 60 minutes
- 3. 61 minutes to 90 minutes
- 4. 91 minutes to 120 minutes
- 5. 121 minutes to 150 minutes
- 6. 151 minutes to 180 minutes
- 7. Over three hours

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72

85. Do you think the use of vans to draw blood or make Breathalyzer tests is faster than if more compact equipment were in a regular patrol car? (Check One)

- 1. Yes
- 2. No

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73

86. Do you think it would be faster to take the DWI suspect to a central location for testing? (Check One)

- 1. Yes
- 2. No

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86a. If yes, which location would be most effecient?
(Check One)

- 1. Station house
- 2. Jail
- 3. Hospital
- 4. Other (Specify) _____

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87. How cooperative are the medical technicians on the van or in the station house in processing DWI arrests? (Check One)

- 1. Always cooperative
- 2. Generally cooperative
- 3. Sometimes cooperative
- 4. Seldom cooperative
- 5. Rarely cooperative
- 6. Have had no contact with medical technicians

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8

88. In your opinion, in which groups are most drunken drivers found? Rank 3 with 1 being the group where most frequently found, 2 2nd most frequent and 3 third most frequent. Make sure to place a number in 3 spaces.

- Lower class people
- Middle class people
- Upper class people
- Military people
- There is no way to know
- Black or Negro
- White or Caucasian
- Business executives

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89. In your opinion, in which age group do you think most drunken drivers are found? (Check one)

- 1. Teenagers
- 2. People in 20s or 30s
- 3. Middle-age people
- 4. Elderly people
- 5. No way to know

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90. Which of the following are you least likely to arrest for DWI? (Check one)

- 1. Man with wife and children in car
- 2. Man with drinking buddies or friends along
- 3. Women with children in car
- 4. Man alone in car
- 5. Man with girl friend
- 6. Woman alone in car
- 7. Person with dog in car
- 8. Women with man in car

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91. Are there any locations where you feel concerned or anxious about making a DWI arrest? (Check one)

- 1. Lower-class, run-down area
- 2. Quiet, wealthy neighborhood
- 3. At an intersection where a lot of kids hang out
- 4. At a busy intersection with a lot of traffic
- 5. In an area of bars, taverns, or nightclubs
- 6. Other _____ (Specify)
- 7. None

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92. Are there any times of day when you are more reluctant to make a
DWI arrest? (Check one)

- 1. Early morning hours - 0401 to 0800
- 2. Morning hours - 0801 to Noon
- 3. Afternoon - 1201 to 1600
- 4. Evening Rush Hour - 1601 to 1900
- 5. Evening - 1901 to 2200
- 6. Night - 2201 to 0400
- 7. None

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93. Which of the following have persons used to try to influence you
not to arrest or test them for DWI? (Check as many as apply)

- 1. Sexual favors
- 2. Appliances or similar items for your home
- 3. Telling you your chief is a personal friend of theirs
- 4. Telling you they will "make trouble" for you
- 5. Money
- 6. Cursing, using obscene and/or foul language to you
- 7. Crying
- 8. Claiming to have medical problems
- 9. Claiming they were lighting a cigarette or drinking
a coke
- 10. Claiming they were sneezing or hiccoughing or similar
behavior
- 11. Claiming to be important person who would be hurt by
DWI arrest
- 12. Other _____
- 13. None of the above

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94. Which of the following tactics have you personally used to keep from having to arrest an obviously intoxicated person? (Check as many as apply)

- 1. Taken person to hospital
- 2. Followed person home
- 3. Taken person home in patrol car
- 4. Asked another person in car to drive
- 5. Called a cab
- 6. Called person's family
- 7. Called person's friend or neighbor
- 8. Hid keys to person's car
- 9. Encouraged the person to sleep it off somewhere
- 10. Encouraged the person to drink coffee
- 11. Walked person in fresh air
- 12. Other _____ (Specify)
- 13. None of the above

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95. Which of the following did you suspect of possible DWI but issued only a verbal warning on your last week of patrol? (Check as many as apply)

- 1. Elderly man
- 2. Elderly woman
- 3. Elderly couple
- 4. Well-dressed, polite male
- 5. Working man who had been "with the boys" to celebrate
- 6. Woman with children in car
- 7. Man with children or spouse in car
- 8. Woman, crying, telling you of her personal problems
- 9. Polite, nicely-dressed middle-aged woman coming from party
- 10. Friend or acquaintance
- 11. Teen-age kid, probably first big party or drinking experience
- 12. Important person whose career would be damaged by arrest
- 13. Other _____ (Specify)
- 14. None of the above

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96. How many times on your last week or patrol duty when you tested a suspect for DWI and it registered positive did you still let the suspect go? _____ (Fill in)

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56 57

97. Some officers will warn and send a person suspected of DWI on home if he or she is near residence. In which of the following instances would you send the person on home or follow them home? (Check One)

- () 1. Less than $\frac{1}{2}$ mile from suspect's residence
- () 2. Less than 1 mile from suspect's residence
- () 3. Less than two miles from suspect's residence
- () 4. Less than three miles from suspect's residence
- () 5. Less than four miles from suspect's residence
- () 6. Less than five miles from suspect's residence
- () 7. Over five miles from suspect's residence
- () 8. None of the above

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98. Do you think that court procedures with relation to DWI referrals influence your willingness to make DWI arrests? (Check One)

- () 1. Yes
- () 2. No
- () 3. Unsure

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59

99. People arrested and convicted for alcohol related offense who attended ASAP: (Put a 1 for most likely and a 2 for second most likely . Make sure you place a different number before 2 items.)

- () Are less likely to drink and drive
- () Drink less before driving
- () Probably don't change
- () Are more likely to find someone else to drive them home
- () Take less patrolled roads home after drinking
- () Change the places where they drink
- () Drink more at home

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100. People arrested and convicted for alcohol related offense who did not attend ASAP: (Put a 1 for most likely and a 2 for second most likely . Make sure you place a different number before 2 items.)

- () Are less likely to drink and drive
- () Drink less before driving
- () Probably don't change
- () Are more likely to find someone else to drive them home
- () Take less patrolled roads home after drinking
- () Change the places where they drink
- () Drink more at home

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101. What three actions do you think are most likely to decrease DWI-related traffic accidents. Put a 1 for most important, 2 for second most important, and 3 for the third most important. Be sure to place a different number before 3 items.

- | | | | |
|--------------------------|---|--------------------------|--------------------------|
| <input type="checkbox"/> | More severe laws | | |
| <input type="checkbox"/> | More special patrols | | |
| <input type="checkbox"/> | More ASAP patrols | | |
| <input type="checkbox"/> | Marked cars | | |
| <input type="checkbox"/> | Bird-dogging establishments | | |
| <input type="checkbox"/> | Educating the public | | |
| <input type="checkbox"/> | More police officer contact with suspects | | |
| <input type="checkbox"/> | Frequent, unannounced random checks of all drivers in an area | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | Having police officers speak to public gatherings, as Jaycees, P.T.A., and the like | 64 | 65 |
| <input type="checkbox"/> | Spotting known DWI offenders | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | Special license tags | 66 | 67 |
| <input type="checkbox"/> | More strict enforcement by the courts | | |
| <input type="checkbox"/> | Better treatment programs for those arrested and convicted | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | None of the above | 68 | 69 |

102. Given what you know right now about the Fairfax County Alcohol Safety Action Project, do you think that between 1972 and 1974, it:
(Check one)

- | | | |
|--------------------------|--|--------------------------|
| <input type="checkbox"/> | 1. <u>Definitely</u> contributed to a reduction of alcohol-related traffic crashes in Fairfax County; | |
| <input type="checkbox"/> | 2. <u>Possibly</u> contributed to a reduction of alcohol-related traffic crashes in Fairfax County; or | <input type="checkbox"/> |
| <input type="checkbox"/> | 3. <u>Had no effect</u> on the alcohol-related accident problems of Fairfax County. | 70 |

PART II

Following is a list of statements about drinking alcohol (beer, wine, liquor). You will probably agree with some of the statements and disagree with others. There are no right or wrong answers, please indicate your honest opinion. Place an "X" in the column indicating whether you strongly agree, agree, are undecided, disagree, or strongly disagree with each statement.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. I like drinking too well to give it up.					
2. Life would be happier without drinking.					
3. Drinking is the worst thing I know.					
4. Drinking is sinful.					
5. Drinking cannot benefit anyone who has common sense.					
6. Drinking serves some good purposes.					
7. Drinking is very important for a good social life.					
8. Drinking should not be tolerated when there are other things to do.					
9. I like drinking better than most other things.					
10. Everyone would be better off if there were no drinking.					
11. Drinking should be appreciated by more people.					
12. Drinking is a waste of time and money.					
13. Drinking accomplishes nothing worthwhile either for the individual or society.					

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	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
14. Drinking makes for happier living.					
15. Drinking serves no purpose.					
16. Drinking has its advantages.					
17. I really don't care very much for drinking.					
18. Drinking as a rule is pretty good.					
19. Drinking is liked by almost everyone.					
20. Drinking has an irresistible attraction for me.					
21. An insult to your honor should not be forgotten.					
22. People can be trusted.					
23. Human nature being what it is, there will always be war and conflict.					
24. A few strong leaders could make this country better than all the laws and talk.					
25. Women should stay out of politics					
26. Most people who don't get ahead just don't have enough will power..					

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THANK YOU FOR YOUR COOPERATION IN THIS SURVEY. THE FOLLOWING ARE SOME QUESTIONS ABOUT THE SURVEY ITSELF. YOUR ANSWERS WOULD BE APPRECIATED.

1. What was your initial reaction when you received this survey?

2. If any questions were unclear, could you put their numbers below. Comments as to why the question or questions were unclear would be helpful.

3. Do you have any comments or suggestions to make about the survey?

4. How long did it take you to complete this survey?
(Fill in) _____ Minutes $\frac{(\quad)}{32}$ $\frac{(\quad)}{33}$ $\frac{(\quad)}{34}$

5. What do you expect will be most helpful to you in the ASAP Orientation and what would you like to get from it?

THANK YOU FOR YOUR COOPERATION.

ASAP POLICE SURVEY
SECOND WAVEI. BACKGROUND

1. What is your age? (Fill In) _____
2. What is your religious affiliation? (Check One)
- () 1. Protestant
() 2. Roman Catholic
() 3. Jewish
() 4. Other
3. Please check the highest level of formal education you completed. Do not include military training, police academy, or other specialized vocational or technical schools not granting a degree.
- () 1. GED or High School
() 2. 1 Year College
() 3. 2 Year College
() 4. 3 Year College
() 5. 4 Year College
() 6. 5 Year College
() 7. 6 Year College
() 8. 7 or more Year College
4. How many years have you been a police officer?
(Circle One)
- 1 or less 2 3 4 5 6 7 8 9
- 10 11 12 13 14 15 16 or more
5. If you added together all the time you have been on patrol duty, how much time would that come to? (Check One)
- () 1. 0 - 6 months
() 2. 7 - 12 months
() 3. 13 - 18 months
() 4. 19 - 23 months
() 5. 2 - 3 years
() 6. 3 - 4 years
() 7. 4 - 5 years
() 8. Over 5 years
6. How long has it been since you were last assigned to patrol duty? (Check One) If currently assigned to patrol duty, check here .
- () 1. Less than 6 months
() 2. 6 months to 1 year
() 3. 1 to 2 years
() 4. 2 to 3 years
() 5. 3 to 4 years
() 6. 4 or more years

7. How many automobile accidents involving serious injuries or fatalities where DWI was suspected have you personally handled in the past year? (Fill In) _____

8. How many times in the last six months have you worked ASAP patrol? (Fill In) _____

II. THE FOLLOWING QUESTIONS ARE ABOUT YOUR INFORMATION AND OPINIONS CONCERNING SOME OF THE EQUIPMENT YOU USE, ABOUT ALCOHOL, AND ABOUT DWI LAWS. WE HOPE YOUR ANSWERS WILL HELP US FIND AREAS WHERE MORE ATTENTION IS NEEDED.

9. When alcohol is consumed and absorbed faster than it is used up, its effects will: (Check One)

- 1. Decrease
- 2. Increase and build up
- 3. Disappear
- 4. None of the above

10. The best way to remove alcohol from the bloodstream is by: (Check One)

- 1. Drinking black coffee
- 2. Drinking plenty of other fluids after drinking alcoholic beverages
- 3. Breathing cold, fresh air
- 4. Waiting

11. Legal presumptive level of intoxication in Virginia requires a BAC level of: (Check One)

- 1. .05
- 2. .07
- 3. .10
- 4. .12
- 5. .15

12. At what BAC level does the driving of the normal driver become seriously impaired? (Check One)

- 1. .05
- 2. .06
- 3. .07
- 4. .08
- 5. .09
- 6. .10
- 7. .11
- 8. .12

13. What is your weight? (Fill In) _____ lbs.

14. As a police officer, what do you think are the two major functions of ASAP? Rank the top two with 1 as the highest & 2 as the second highest. Make sure there is a number before 2 items.

- ___ To get "drunk drivers" completely off the road
- ___ To teach the public about the dangers of driving while drinking
- ___ To increase the numbers of persons arrested for drunk driving
- ___ To get the problem driver into rehabilitation and treatment programs
- ___ To reduce the number of alcohol-related accidents
- ___ To reduce recidivism among those who have completed ASAP
- ___ To reduce the amount that people drink

15. Which of the following equipment does your station have? (You may check more than one).

- () 1. Balloon kits or Alcoalyzer to test breath alcohol content
- () 2. Alcohol Sensor
- () 3. Borg-Warner Alcohol Level Evaluation Test (ALET)
- () 4. None of the above

16. Which of the following equipment have you personally used? (Check all those you have used).

- () 1. Balloon kits or Alcoalyzer to test breath alcohol content
- () 2. Alcohol Sensor
- () 3. Borg-Warner Alcohol Level Evaluation Test (ALET)
- () 4. None of the above

17. What does "driving under the influence" mean? _____

18. How many 12 ounce cans of beer would YOU have to drink in two hours to be legally intoxicated? (Circle the Number)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more

19. How many 1 - 1½ ounces of liquor would YOU have to drink in two hours to be legally intoxicated? (Circle the Number)
- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more

III THE FOLLOWING 12 QUESTIONS CONCERN THE DRINKING OF ALCOHOLIC BEVERAGES. USE THESE EQUIVALENTS TO ANSWER THE QUESTIONS:

One Drink = One 12 oz. Beer or 1 oz. liquor or 4 oz. wine.

20. Approximately what percentage of the people you work with do you think drink alcoholic beverages at least occasionally? (Circle One)

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100%

21. Approximately what percentage of your supervisors do you think drink alcoholic beverages at least occasionally? (Circle One)

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100%

22. Approximately what percentage of your friends drink alcoholic beverages at least occasionally? (Circle One)

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100%

23. What would you estimate is the greatest number of drinks of alcoholic beverages any of your supervisors might drink at any one continuous period of time? (Circle One)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more

24. What would you estimate is the greatest number of drinks of alcoholic beverages any of your co-workers might drink at any one continuous period of time? (Circle One)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more

25. What would you estimate is the greatest number of drinks of alcoholic beverages any of your friends might drink at any one continuous period of time? (Circle One)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more

26. With whom do you most frequently drink? If you do not drink at all, check here .

() 1. Spouse or opposite sex companion

() 2. Friends

() 3. Casual drinking companions

() 4. Co-workers

() 5. Alone

() 6. Other _____ (Specify)

27. Where do you do most of your drinking? If you do not drink at all, check here .

- () 1. Own home
- () 2. Friend's home
- () 3. Party
- () 4. Bar or lounge
- () 5. Restaurant
- () 6. Other _____ (Specify)

28. How many drinks might you have at any one party?
(Circle One)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 or more

29. Approximately how often do you drink? (Check One)

- () 1. Daily
- () 2. Three times a week
- () 3. Twice a week
- () 4. Once a week
- () 5. Once a month
- () 6. Less than once a month
- () 7. Do not drink at all

30. How often do you drink after the end of a shift? (Check One)

- () 1. Daily
- () 2. Three times a week
- () 3. Twice a week
- () 4. Once a week
- () 5. Once a month
- () 6. Less than once a month
- () 7. Never
- () 8. Do not drink at all

31. Most people who go to parties away from home drink alcoholic beverages. If you have had several drinks at a party, do you ever seriously consider not driving home?

- () 1. Yes
- () 2. No

31a. If yes, what are the main reasons that might influence you not to drive. Rank two, with 1 most important & 2 the 2nd most important. Make sure there is a different number in 2 spaces.

- _____ I feel very high or uncoordinated
- _____ My spouse or friend prefers to drive
- _____ A police officer should set a good example for others
- _____ I believe drinking and driving do not mix
- _____ I am afraid of being stopped
- _____ Other (Specify) _____

32. Which of the following best describes your origin or descent?
(Check One).

- 1. British, Scotch, Welsh
- 2. Irish
- 3. German
- 4. French
- 5. Italian
- 6. Other European origin
- 7. Middle Eastern
- 8. Asian
- 9. African
- 10. Spanish-speaking, Mexican, Chicano, Puerto Rican, Caribbean
- 11. Other (Specify) _____

33. Who gave you the most comprehensive information about special policies or procedures to be followed in apprehending, testing, and charging DWI suspects? (Check One)

- 1. Supervisors
- 2. Police academy instructors
- 3. Other officers
- 4. ASAP officers
- 5. Found it out on my own
- 6. General knowledge
- 7. ASAP Orientation

34. The following may have an influence on your decision whether to have a suspect tested to determine his or her BAC.
(Check One)

- 1. Odor of alcohol on breath
- 2. Stumbling when getting out of car
- 3. Thick or slurred speech
- 4. Balloon test
- 5. Bloodshot eyes
- 6. Use of foul language
- 7. Uncoordinated; for example, cannot walk a straight line
- 8. Making excuses for condition or driving

35. When you stop suspects, approximately what percentage do you give balloon tests to? (Circle One)

0% - 10 - 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100%

36. If the results of a prescreening test on a DWI suspect are negative, what do you do? (Check One)

Check here if you have never used a prescreening test

- 1. Let the suspect go
- 2. Have blood or breath analysis administered if he or she appears very drunk
- 3. Have blood or breath analysis administered even if he or she appears only moderately drunk
- 4. Have blood or breath analysis administered because he or she may have a medical problem
- 5. Charge him or her with a non-alcohol related offense

37. Do regulations require you to handcuff every suspect arrested by you for DWI? (Check One)

- () 1. Yes
- () 2. No

38. When you handcuff a suspect, do you do so before or after his or her BAC has been determined by chemical testing? (Check One)

- () 1. Before a Breathalyzer or blood sample is taken
- () 2. After a Breathalyzer or blood sample is taken
- () 3. Have never handcuffed a DWI suspect

39. Approximately how many DWI suspected contacts did you make during the last 6 months? (Check One)

- () 1. 0 - 4
- () 2. 5 - 9
- () 3. 10 - 14
- () 4. 15 - 19
- () 5. 20 - 24
- () 6. 25 - 29
- () 7. 30 or more

40. Approximately how many arrests for DWI did you make during the last 6 months? (Check One)

- () 1. 0 - 4
- () 2. 5 - 9
- () 3. 10 - 14
- () 4. 15 - 19
- () 5. 20 - 24
- () 6. 25 - 29
- () 7. 30 or more

41. Could you give us an idea of some of the reasons that you might stop a car for suspected DWI. Please rank the three items in order of importance to you, using 1 for the most likely reason you would stop a suspect, 2 for the second most likely reason, and 3 for the third most likely reason. Be sure to put a different number in 3 spaces.

- ___ Driver clipping the yellow line
- ___ Vehicle is a van
- ___ Appearance or types of persons in car or van
- ___ Driver tosses bottle or can from open window of car
- ___ Car speed is considerably slower than traffic flow
- ___ Driver is speeding
- ___ Driver has not turned on car lights after dark
- ___ Driver starts car jerkily from stopped position
- ___ Driver continuously veers onto shoulder of roadway

42. When you stop a suspect for DWI, do you generally know beforehand whether you are going to test him or her?
(Check One)

1. Yes
 2. No

43. Was the information you received about the law with respect to DWI arrests -- (Check One)

1. About what you needed
 2. More than you needed
 3. Less than you needed
 4. Unclear or confusing
 5. No information received

44. Has your decision not to stop a suspected DWI ever been influenced by weather conditions? (Check One)

1. Yes
 2. No

45. The three best helpers for the problem drinking driver are: (Put a 1 for the most important, 2 for the second most important, 3 for the third most important; only 3 answers are required).

- ___ Medical doctor
- ___ Psychiatrist
- ___ Social Worker
- ___ Priest or minister
- ___ Alcoholics Anonymous
- ___ Good law enforcement
- ___ Judges who enforce the law strictly
- ___ Marked patrol cars
- ___ Bird-dogging taverns and bars
- ___ Education in elementary and high school
- ___ Special education programs for those arrested for DWI
- ___ Jail
- ___ Mental health clinic
- ___ Willpower
- ___ Mental hospital
- ___ ASAP
- ___ Understanding husband or wife
- ___ Hospital alcohol treatment center

46. The best way to keep the drinking driver off the road is:
(Check One)

- 1. Jail sentence
- 2. Suspend license
- 3. Stiff fine
- 4. Put their names in the newspaper
- 5. ASAP Program
- 6. Other rehabilitation programs
- 7. Impossible to keep drinking drivers off the road

47. On the average, how many DWI arrests would you estimate a typical patrolman made during a six month period of patrol duty? (Check One)

- 1. 0 - 4
- 2. 5 - 9
- 3. 10 - 14
- 4. 15 - 19
- 5. 20 - 24
- 6. 25 - 29
- 7. 30 or more

48. On the average, how many DWI contacts would you estimate a typical patrolman made during a six month period of patrol duty? (Check One)

- 1. 0 - 4
- 2. 5 - 9
- 3. 10 - 14
- 4. 15 - 19
- 5. 20 - 24
- 6. 25 - 29
- 7. 30 or more

49. In 1975, approximately how many DWI arrests were made in Fairfax County. (Check One)

- 1. Under 101
- 2. 101 to 500
- 3. 501 to 1,000
- 4. 1,001 to 2,000
- 5. 2,001 to 3,000
- 6. Over 3,000

50. Do you think you make more, about the same, or fewer DWI arrests than your fellow officers? (Check One)

- 1. More
- 2. About the same
- 3. Fewer

51. Do you think your immediate supervisor would like to see you make more, about the same, or fewer DWI arrests?
(Check One)

- 1. More
- 2. About the same
- 3. Fewer
- 4. I am unaware of supervisor's opinion

52. Do you prefer ASAP to regular patrol duty? (Check One)

- 1. Yes
- 2. No

52a. If yes, do you prefer ASAP duty because:
(Check One)

- 1. The money is better
- 2. Greater approval from supervisor
- 3. Easier patrol duty
- 4. Like to drive the van
- 5. Helps my career

53. When you decide to have blood or breath analysis administered, how long does it usually take to reach the testing facility?
(Check One)

- 1. Under 14 minutes
- 2. 15 - 29 minutes
- 3. 30 - 44 minutes
- 4. 45 - 59 minutes
- 5. 60 - 74 minutes
- 6. 75 - 89 minutes
- 7. 90 - 120 minutes
- 8. Over two hours

54. How long on the average does it take you to stop, test, charge a suspect for DWI, and take him or her in? (Check One)

- 1. Under 30 minutes
- 2. 31 minutes to 60 minutes
- 3. 61 minutes to 90 minutes
- 4. 91 minutes to 120 minutes
- 5. 121 minutes to 150 minutes
- 6. 151 minutes to 180 minutes
- 7. Over three hours

55. In your opinion, in which groups are most drunken drivers found? Rank 3 with 1 being the group where most frequently found, 2 second most frequent and 3 third most frequent. Make sure to place a number in 3 spaces.

- _____ Lower class people
- _____ Middle class people
- _____ Upper class people
- _____ Military people
- _____ There is no way to know
- _____ Black or Negro
- _____ White or Caucasian
- _____ Business Executives

56. In your opinion, in which age group do you think most drunken drivers are found? (Check One)

- 1. Teenagers
- 2. People in 20s or 30s
- 3. Middle-age people
- 4. Elderly people
- 5. No way to know

57. Which of the following are you least likely to arrest for DWI? (Check One)

- 1. Man with wife and children in car
- 2. Man with drinking buddies or friends along
- 3. Woman with children in car
- 4. Man alone in car
- 5. Man with girl friend
- 6. Woman alone in car
- 7. Person with dog in car
- 8. Woman with man in car

58. Are there any locations where you feel concerned or anxious about making a DWI arrest? (Check One)

- 1. Lower-class, run-down area
- 2. Quiet, wealthy neighborhood
- 3. At an intersection where a lot of kids hang out
- 4. At a busy intersection with a lot of traffic
- 5. In an area of bars, taverns or nightclubs
- 6. Other _____ (Specify)
- 7. None

59. Which of the following have persons used to try to influence you not arrest or test them for DWI? (Check as many as apply)

- 1. Sexual favors
- 2. Appliances or similar items for your home
- 3. Telling you your chief is a personal friend of theirs
- 4. Telling you they will "make trouble" for you
- 5. Money
- 6. Cursing, using obscene and/or foul language to you
- 7. Crying
- 8. Claiming to have medical problems
- 9. Claiming they were lighting a cigarette or drinking a coke
- 10. Claiming they were sneezing or hiccupping or similar behavior
- 11. Claiming to be important person who would be hurt by DWI arrest
- 12. Other _____
- 13. None of the above

60. Which of the following tactics have you personally used to keep from having to arrest an obviously intoxicated person? (Check as many as apply)

- 1. Taken person to hospital
- 2. Followed person home
- 3. Taken person home in patrol car
- 4. Asked another person in car to drive
- 5. Called a cab
- 6. Called person's family
- 7. Called person's friend or neighbor
- 8. Hid keys to person's car
- 9. Encouraged the person to sleep it off somewhere
- 10. Encouraged the person to drink coffee
- 11. Walked person in fresh air
- 12. Other _____ (Specify)
- 13. None of the above

61. Which of the following did you suspect of possible DWI but issued only a verbal warning on your last week of patrol? (Check as many as apply)

- 1. Elderly man
- 2. Elderly woman
- 3. Elderly couple
- 4. Well-dressed, polite male
- 5. Working man who had been "with the boys" to celebrate
- 6. Woman with children in car
- 7. Man with children or spouse in car
- 8. Woman, crying, telling you of her personal problems
- 9. Polite, nicely-dressed middle-aged woman coming from party
- 10. Friend or acquaintance
- 11. Teen-age kid, probably first big party or drinking experience
- 12. Important person whose career would be damaged by arrest
- 13. Other _____ (Specify)
- 14. None of the above

62. Do you think that court procedures with relation to DWI referrals influence your willingness to make DWI arrests? (Check One)

- 1. Yes
- 2. No
- 3. Unsure

63. What happens to people arrested and convicted for alcohol related offenses who attended ASAP? (Check One)

- 1. They are less likely to drink and drive
- 2. They drink less before driving
- 3. They probably don't change
- 4. They are more likely to find someone else to drive them home
- 5. They take less patrolled roads home after drinking
- 6. They change the places where they drink
- 7. They drink more at home

64. What two actions do you think are most likely to decrease DWI-related traffic accidents. Put a 1 for most important, and a 2 for the second most important. Be sure to place a different number before 2 items.

- _____ More severe laws
- _____ More special patrols
- _____ More ASAP patrols
- _____ Marked cars
- _____ Bird-dogging establishments
- _____ Educating the public
- _____ More police officer contact with suspects
- _____ Frequent, unannounced random checks of all drivers in an area
- _____ Having police officers speak to public gatherings, such as Jaycees, P.T.A., and the like
- _____ Spotting known DWI offenders
- _____ Special license tags
- _____ More strict enforcement by the courts
- _____ Better treatment programs for those arrested and convicted
- _____ None of the above

65. Given what you know right now about the Fairfax County Alcohol Safety Action Project, do you think that between 1972 and 1975, it: (Check One)

- 1. Definitely contributed to a reduction of alcohol-related traffic crashes in Fairfax County;
- 2. Possibly contributed to a reduction of alcohol-related traffic crashes in Fairfax County; or
- 3. Had no effect on the alcohol-related accident problems of Fairfax County.

PART II

Following is a list of statements about drinking alcohol (beer, wine, liquor). You will probably agree with some of the statements and disagree with others. There are no right or wrong answers, please indicate your honest opinion. Place an "X" in the column indicating whether you strongly agree, agree, are undecided, disagree, or strongly disagree with each statement.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. I like drinking too well to give it up					
2. Life would be happier without drinking.					
3. Drinking is the worst thing I know.					
4. Drinking is sinful.					
5. Drinking cannot benefit anyone who has common sense.					
6. Drinking serves some good purposes.					
7. Drinking is very important for a good social life.					
8. Drinking should not be tolerated when there are other things to do.					
9. I like drinking better than most other things.					
10. Everyone would be better off if there were no drinking.					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
11. Drinking should be appreciated by more people.					
12. Drinking is a waste of time and money.					
13. Drinking accomplishes nothing worthwhile either for the individual or society.					
14. Drinking makes for happier living.					
15. Drinking serves no purpose.					
16. Drinking has its advantages.					
17. I really don't care very much for drinking.					
18. Drinking as a rule is pretty good.					
19. Drinking is liked by almost everyone.					
20. Drinking has an irresistible attraction for me.					



APPENDIX C

Appendix C

Scales Used in the Analysis

A total of eleven scales were developed during the analysis of data from the first wave of the Police Attitude Study. A list of these scales and a description of the contents of each can be found in Figure 4 below.

Figure 4
POLICE ATTITUDE SCALES

1. Knowledge Scale
2. Police Attitudes Toward Drinking
3. Reasons for Stopping DWI
4. Contact vs Arrests in One Week
5. Contacts vs Arrests in 6 months
6. Discretionary Behavior
7. Major Function of ASAP
8. Equipment Available vs Used
9. Total Time to Process DWI
10. Favors Offered Not to Arrest
11. Tactics Used to Avoid DWI Arrest

It should be noted that not all of these scales were used in the analysis. This appendix contains a discussion of the individual items that make up the scale, the procedures used to construct the scale, the way the values of the scale were collapsed into a small number of categories and frequency distributions, both ungrouped and grouped, for the values of each scale.

A. Knowledge of Drinking. The first scale concerned knowledge of drinking and was constructed from five items in the questionnaire. The first four items were factual questions, such as the level of legal intoxication in Virginia, while the last asked for a written definition of the meaning of driving under the influence. All answers were separated into correct or incorrect responses.

The scale was constructed by recoding four of the five individual items so that correct answers were given a weight of one and incorrect responses a weight of two. The fifth open ended item on proper definition of DWI was categorized into totally correct, partly correct and incorrect and assigned values of 1, 2, and 3. The values were then reversed and added so that high scores would indicate high knowledge and low scores would indicate low knowledge. The scale scores ranged from a low of 5 -- all incorrect responses -- to a high of 11 for a respondent who answered all correctly. Respondents with missing

values were eliminated. The scale was recoded into three categories with 5 - 8, 9, and 10 - 11 corresponding to low, medium, and high knowledge. The recoded and unrecoded values for this scale are shown in Tables 69 and 70.

TABLE 69
KNOWLEDGE SCALE
(Unrecoded)

Value	Number	Frequency
7	4	2.0%
8	38	18.7%
9	79	38.9%
10	52	25.6%
11	30	14.8%

TOTAL 203 100.0%

TABLE 70
KNOWLEDGE SCALE
(Recoded)

Value	Number	Frequency
Low 1	45	19.7%
Medium 2	94	38.4%
High 3	64	40.3%

TOTAL 203 100.0%

B. Attitudes Toward Drinking. The second major scale was directed at attitudes toward drinking. The scale consisted of twenty statements about drinking alcohol presented in a typical Likert format consisting of strongly disagree, disagree, undecided, agree and strongly agree. The scale used in the Police Attitude Study was constructed by the use of an item-to-scale-score correlational technique that went through the following steps. Variables were recoded so that they would run in the same low to high direction. The scores on the twenty items were added to obtain a scale score. Each variable was correlated with the total scale score. Each variable that did not correlate with the scale scores greater than $r=.30$ were omitted from the final scale. Four of the twenty items did not meet either of the conditions leaving a total of sixteen items in the scale. As was the case with the knowledge scale, respondents with missing values were eliminated. Scores on the drinking scale ranged from a low of 25 to a high of 78 as shown in Table 71. These were recoded into three categories: a social drinker or drinker group; an undecided group; and an against or strongly against drinking group. This is shown in Table 72. There were 29 respondents with missing values in the Scale.

TABLE 71
POLICE ATTITUDES TOWARD DRINKING

Value	Number	Frequency
24	1	0.5%
26	1	0.5%
32	1	0.5%
34	1	0.5%
35	1	0.5%
36	3	1.6%
37	1	0.5%
38	7	3.8%
39	4	2.2%
40	11	6.0%
41	13	7.1%
42	13	7.1%
43	7	3.8%
44	5	2.7%
45	9	4.9%
46	5	2.7%
47	7	3.8%
48	6	3.3%
49	7	3.8%
50	9	4.9%
51	9	4.9%
52	6	3.3%
53	6	3.3%
54	3	1.6%
55	6	3.3%
56	3	1.6%
57	4	2.2%
58	5	2.7%
59	2	1.1%
60	6	3.3%
61	4	2.2%
62	4	2.2%
64	1	0.5%
65	2	1.1%
66	4	2.2%
67	2	1.1%
68	1	0.5%
71	1	0.5%
77	1	0.5%
78	1	0.5%

TOTAL

183

100.0%

TABLE 72
POLICE ATTITUDES TOWARD DRINKING

	Value	Number	Frequency
Social Drinker or Drinker	1	56	30.6%
Undecided	2	44	24.0%
Against or Strongly Against	3	83	45.4%
TOTAL		183	100.0%

C. Reasons for Stopping a DUI. This scale was a measure of agreements on officer's reasons for stopping a DUI suspect. The two items used to construct this scale were the first and second reason an officer might stop a DUI suspect. Modal responses were considered to be agreements on reasons for stopping; Non-modal responses were considered to indicate disagreement. Two points were given for a modal response, one point for a non-modal response. If respondents answered in the modal category for both items, they were given a score of 4. Respondents who had one modal and one non-modal response were given a score of 3, while respondents with two non-modal responses were given a score of 2. The modal category for first reason an officer might stop a DUI were "driver continuously veers," while the modal response for the second reason was either "driver clipping yellow line" or "car speed slower." The distribution of this scale is shown in Table 73. Scores of either two or three were recoded into a single "disagreement" category while a score of four was felt to indicate agreement. This is shown in Table 73 and 74.

TABLE 73
REASONS FOR STOPPING DUI

	Value	Number	Frequency
	2	37	17.9%
	3	44	21.3%
	4	126	60.9%
TOTAL		207	100.0%

TABLE 74
REASONS FOR STOPPING DUI

	Value	Number	Frequency
Disagreements	1	81	39.1%
Agreements	2	126	60.9%
TOTAL		207	100.0%

D. DUI Contacts and Arrests During the Last Week. Two questions that requested information on the number of DUI arrests and DUI contacts during the last weeks were the basis for this scale. If the number of contacts in one week was less than the number of arrests, the two items were added. If the number of arrests were equal to the number of contacts, the two variables were added and multiplied by 2. If the number of contacts was greater than the number of arrests, the two variables were added and multiplied by 3. This had the function of understating those who inflated the number of arrests. Respondent answers were recoded into 3-8, 9-16, and 17-39 corresponding to a low, medium, and high. This is shown in Tables 75 and 76.

TABLE 75
CONTACTS VS ARRESTS IN ONE WEEK

Value	Number	Frequency
0	97	47.8%
3	20	9.9%
4	12	5.9%
6	18	8.9%
8	8	3.9%
9	10	4.9%
12	11	5.4%
15	7	3.4%
16	1	0.5%
18	5	2.5%
21	4	2.0%
24	3	1.5%
27	4	2.0%
30	2	1.0%
33	1	0.5%
TOTAL	203	100.0%

TABLE 76
CONTACTS VS ARRESTS IN ONE WEEK

	Value	Number	Frequency
Low	1	97	47.8%
Medium	2	58	28.6%
High	3	43	23.6%
TOTAL		203	100.0%

E. Contacts and Arrests in the Last Six Months. This scale was constructed in the same manner as was the previous scale, except that different recoding procedures were used. The low category in this scale was 0, the medium category was 3 to 8 and the high category was 9 to 33. The grouped and ungrouped values are shown in Tables 77 and 78.

TABLE 77
CONTACTS VS ARRESTS IN SIX MONTHS

Value	Number	Frequency
3	11	0.5%
4	47	23.2%
5	1	0.5%
8	16	7.9%
9	24	11.8%
12	17	8.4%
15	19	9.4%
16	4	2.0%
18	11	5.4%
20	4	2.0%
21	15	7.4%
24	13	6.4%
27	11	5.4%
28	2	1.0%
30	5	2.5%
33	5	2.5%
36	6	3.0%
39	2	1.0%
TOTAL		203
		100.0%

TABLE 78
CONTACTS VS ARRESTS IN 6 MONTHS

	Value	Number	Frequency
Low	1	65	32.0%
Medium	2	64	31.5%
High	3	74	36.5%
TOTAL		203	100.0%

F. Discretionary Behavior. This scale utilized two items that asked the number of times an officer had obtained a positive BAC and let the suspect go, and the number of times they sent or followed a person home. In the first item a zero response was considered non-discretionary, while all other responses were considered more discretionary. In the second, the never response was considered to indicate non-discretionary behavior while all others were considered discretionary. A non-discretionary response for the two variables was assigned a value of 2; a discretionary response was assigned a value of 1. Two non-discretionary responses led to a score of four. A non-discretionary response on one item and a discretionary response on the other generated a score of 3, while 2 discretionary values led to a score of 2. The scale was then dicotomized with scores 2 or 3 equalling discretionary behavior and scores of four equalling non-discretionary behavior. The grouped and ungrouped distributions for these variables are shown in Tables 79 and 80.

TABLE 79

	Value	Number	Frequency
	2	8	4.1%
	3	76	39.4%
	4	109	56.5%
TOTAL		193	100.0%

TABLE 80

	Value	Number	Frequency
Discretionary	1	84	43.5%
Non-discretionary	2	109	56.5%
TOTAL		193	100.0%

G. Major Function of ASAP. This scale was constructed in a manner similar to that used in the reason for stopping scale, except that different variables were utilized. The three items used were the first, second and third major functions of ASAP. The scores were assigned based on modal categories with the modal categories for the first variable being, "getting drunk drivers off the road;" and for the third variable, "teaching public about the dangers of drunk driving." The scores were recoded into three categories: disagreements, intermediate and agreements. The recoded and unrecoded distributions for this scale are shown in Tables 81 and 82.

TABLE 81
MAJOR FUNCTION OF ASAP

Value	Number	Frequency
3	62	30.1%
4	75	36.4%
5	58	28.2%
6	11	5.3%
TOTAL	206	100.0%

TABLE 82
MAJOR FUNCTION OF ASAP

	Value	Number	Frequency
Disagreements	1	62	30.1%
Intermediate	2	75	36.4%
Agreements	3	69	33.5%
TOTAL		206	100.0%

H. Equipment Available Compared to Used. The next scale, which was not used in the analysis, was concerned with the availability of various types of breath-testing equipment and whether the equipment was actually used. The two items that made up this scale were the type of equipment, or combinations of equipment, that were available at the officer's substation and the kind of equipment the officers reported having used. Both items allowed officers to check, that they had used no equipment, a single type of equipment or various combinations. The responses were then combined into those where the officer indicated familiarity with only one type, and those where the officer indicated familiarity with 2 or more types. Officers who indicated having used the same kinds of equipment their substation possessed were assigned a value of one, those indicating that they had used more or less equipment than their substation possessed were assigned values of two and three. The scale is shown in Table 83.

TABLE 83
EQUIPMENT AVAILABLE VS USED

Value	Number	Frequency
1	46	21.8%
2	109	51.7%
3	56	26.5%
TOTAL	211	100.0%

I. Total Time to Process a DUI. This scale was constructed from responses to variables concerned with the amount of time it took an officer to reach a testing facility, and the length of time it took to process suspected DUI. Responses to these items were available in 15 and 30 minute intervals respectively. To construct the scale, responses in both items were grouped into under and over 30 minutes and assigned values of one and two. The two items were then added together. Respondents who gave no responses or who were listed as missing were excluded from the scale. The grouped and ungrouped distributions are shown in Tables 84 and 85.

TABLE 84
TOTAL TIME TO PROCESS DUI

Value	Number	Frequency
2	25	12.3%
3	58	28.4%
4	56	27.5%
5	42	20.6%
6	15	7.4%
7	4	2.0%
8	2	1.0%
9	1	0.5%
10	1	0.5%
TOTAL	204	100.0%

TABLE 85
TOTAL TIME TO PROCESS DUI

Value	Number	Frequency
2	25	12.3%
3	58	28.4%
4	56	27.5%
5	42	20.6%
6	23	11.3%
TOTAL	204	100.0%

J. Favors Offered Not to Arrest. This scale was constructed from 12 individual items which asked an officer to indicate whether a suspected drunk driver had used a particular favor to try to avoid being arrested. The total number of positive responses on these 12 items were added and resulted in the distribution shown in Table 86. This Table was then collapsed with 0 to 1 for low, 2 to 5 for medium, and 6 to 12 for high. This grouped distribution is shown in Table 87.

TABLE 86
FAVORS OFFERED NOT TO ARREST

Value	Number	Frequency
0	26	12.3%
1	45	21.2%
2	9	4.2%
3	26	12.3%
4	21	9.9%
5	15	7.1%
6	29	13.7%
7	20	9.4%
8	10	4.7%
9	7	3.3%
10	2	0.9%
11	1	0.5%
12	1	0.5%
TOTAL	212	100.0%

TABLE 87
FAVORS OFFERED NOT TO ARREST

	Value	Number	Frequency
0-1 Favor	1	71	33.5%
2-5 Favors	2	71	33.5%
6-12 Favors	3	70	33.0%
TOTAL		212	100.0%

K. Tactics Used to Avoid a DUI Arrest. The final scale used in this study was concerned with tactics officers admitted having used to avoid having to arrest an apparently intoxicated suspect. The scale was constructed from 12 items that asked whether an officer had ever personally used a particular technique to avoid an arrest. These values were recoded into 0, 1, 2 and 3, and 4 to 8 tactics as shown in Table 88.

TABLE 88
TACTICS USED TO AVOID DUI ARREST

	Value	Number	Frequency
No Tactics	1	48	22.6%
1 Tactic	2	63	29.7%
2-3 Tactics	3	55	25.9%
4-8 Tactics	4	46	21.7%
TOTAL		212	100.0%

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