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TRENDS IN PUBLIC INFORMATION WITHIN THE FAIRFAX ALCOHOL
SAFETY ACTION PROJECT, 1976

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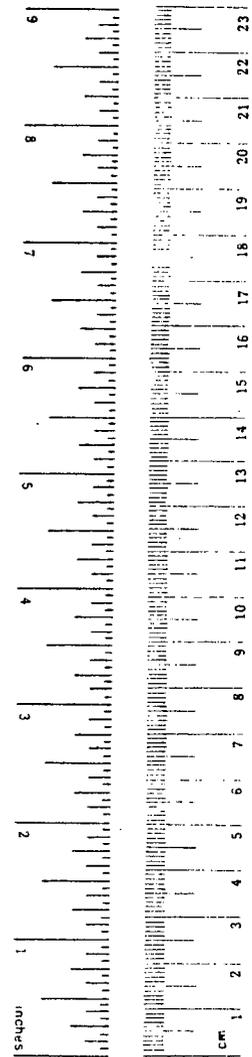
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16. Abstract To assess current trends in the effectiveness of the public information and education countermeasure of the Fairfax Alcohol Safety Action Project, two pieces of survey type research are conducted on a periodic basis. The roadside survey has been conducted annually since 1971, the year before the Fairfax ASAP became operational. The telephone survey, which replaced the yearly household survey, has been conducted on a semiannual basis, with four surveys having been completed. This report summarizes the findings of the roadside and telephone surveys as they pertain to the public information and education countermeasure.					
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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

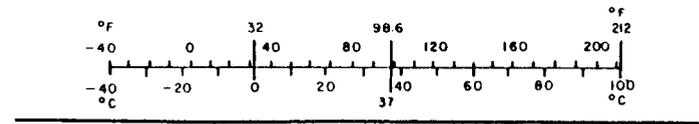
Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi 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 = 2.54 exactly. For other exact conversions and more detailed tables, see *NBS Mon., Publ. 286, Guide for Weights and Measures, Page 52-55, NIST Catalog No. C-110-286.*



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



SUMMARY OF FINDINGS AND CONCLUSIONS

The survey findings presented in this report fall into four basic categories that coincide with the several functions of the public information and education countermeasure. These are summarized below in the order in which they are discussed in the report.

Awareness of Alcohol and Alcohol Countermeasures — The basic function of the public information countermeasure is to create an increased awareness on the part of Fairfax residents that drunk driving is a social problem, and to publicize the existence of alcohol countermeasures, specifically the ASAP project. From the telephone surveys it was found that the Fairfax community's awareness of both alcohol programs in general and the ASAP in particular have declined drastically since 1974. In fact, fewer persons were aware of generalized alcohol countermeasures in 1976 than before the ASAP began operations.

Knowledge of Drinking and Driving — Another function of the public information countermeasure is to make information relating to alcohol and driving available to the public. If the countermeasure is successful in doing this, the percentage of respondents answering knowledge type questions correctly should increase over time. In general, while knowledge of drinking and driving has increased over baseline levels, it is not as high as during the mid-years of the project. Meaningful numbers of respondents are not able to answer questions correctly, especially in terms of the blood alcohol concentration necessary for a presumption of driving while intoxicated and the number of drinks necessary to reach that limit. Thus, there are a substantial number of persons still lacking the basic knowledge necessary to make rational decisions concerning how much they can drink and still drive.

Attitudes Toward Coping With Drunken Drivers — Another of the objectives of public information is to have an impact upon attitudes. The main thrust of recent alcohol advertising has been toward changing the behaviors of bystanders in handling a potential drunken driver. Yet, there was a significant decline in the percentage of respondents who feel that it is a person's responsibility to intervene in a drunk driving situation.

While the self-reported likelihood of using recommended techniques to avert drunk driving remained essentially unchanged, significant differences in likelihood involving socially oriented party behaviors were detected. Respondents were more likely to stop serving alcohol at a certain time and replace it with food and nonalcoholic drinks. They were

less likely to ask who is driving home, to not offer drinks to an intoxicated guest and to delegate driving responsibilities before a party. Attitude levels were found to be related to both experience and alcohol awareness. As awareness levels increased, attitudes became more positive. Thus, through increasing awareness throughout the Fairfax community, the public information countermeasure could potentially change alcohol related attitudes.

Behavior in Relation to Alcohol and Drunk Driving - The objective of the public information and education countermeasure, as with the rest of the project, is to change behaviors; in this case, to increase bystander intervention and to reduce the individual's potential to drink and drive. A majority of respondents who had been in a situation in which someone had been drinking too heavily and was about to drive a car had actually stopped the driver. The percentage of respondents intervening in drunk driving situations increased over time. A variety of methods were used to avert the drunk driving episode. Also, fewer respondents reported ever driving after drinking, and driving when they'd had too much to drink.

In general, there is little evidence to indicate that the public information countermeasure was effective in increasing awareness, increasing overall knowledge, or improving attitudes. (The major exception to this was the self-reported increase in bystander intervention and the self-reported decrease in drinking and driving. These changes could be artifacts of the respondents' lack of candor or they could be the result of national rather than local campaigns.) This lack of objective improvement by 1976 could be related to a number of issues. First, the post of Public Information Director was abolished midway through 1976, which could easily have reduced the exposure the ASAP received and thus reduced awareness. However, many negative or neutral trends in awareness, knowledge, and attitude had already been established by 1976, indicating that, in at least some areas, the public information countermeasure has not met its goals.

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TRENDS IN PUBLIC INFORMATION WITHIN THE FAIRFAX
ALCOHOL SAFETY ACTION PROJECT, 1976

by

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INTRODUCTION

In 1971, Fairfax County, Virginia, was designated by the National Highway Traffic Safety Administration (NHTSA) as one of 35 sites where a community based demonstration program of alcohol countermeasures to reduce alcohol related traffic accidents would be established. The Fairfax Alcohol Safety Action Project (ASAP) includes Fairfax County, Fairfax City, Vienna, Falls Church, and Herndon, an area of more than 1,035 square kilometers and 520,000 residents. The Fairfax project implemented four basic countermeasures: (1) increased police enforcement during nighttime hours, (2) special judicial procedures including ASAP probation and diagnosis, (3) rehabilitation and treatment programs for those convicted of drunken driving, and (4) a campaign of public information and education.

To evaluate the effectiveness of the public information campaigns, several pieces of survey type research were undertaken, including the household surveys (later replaced by the telephone surveys) and the roadside surveys. This report presents the findings of the telephone and roadside surveys as they pertain to the public information and education countermeasure.

PURPOSE

The purpose of this report is to indicate the effectiveness of the public information efforts as determined from comparisons of the results of the various surveys conducted in Fairfax County. Ideally, this report, along with the more detailed reports on telephone and roadside survey findings, will assist decision makers in their guidance of future public information efforts.*

*A more detailed explanation of the method and findings of the four telephone surveys is presented in the report entitled "Drinking-Driving Attitudes, Knowledge, and Behavior: An Analysis of the Four Telephone Surveys of the Fairfax Alcohol Safety Action Project". Similar information concerning the roadside surveys is presented in the report entitled "Trends in Drinking-Driving at Night: A Comparison of Six Roadside Surveys of the Fairfax Alcohol Safety Action Project."

METHODOLOGY

Data for this report were selected from the six roadside surveys and the 1975 and 1976 telephone surveys made in conjunction with the Fairfax ASAP. A brief description of the methods used in these surveys follows.

Roadside Survey Procedures

The first of the roadside surveys was conducted each night from January 5, 1972, through the early morning hours of January 12, 1972. This baseline survey had to be conducted in January because of the need to establish comparative data prior to implementation of the enforcement countermeasure on February 1, 1972. The second survey was conducted in October 1972, the third in October 1973, the fourth in October 1974, the fifth in October 1975, and the sixth in October of 1976.* All six surveys were conducted from 7 p.m. to 3 a.m. on both weekends and weeknights, with minimum sample sizes of 640 motorists for both weeknights and weekends (Friday, Saturday). This eight-hour period was divided into three two-hour and twenty-minute periods in which the interviews were conducted and the travel between the three survey sites was accomplished. The time periods were 7 p.m. — 9:20 p.m. (Site 1), 9:50 p.m. — 12:10 a.m. (Site 2), and 12:40 a.m. — 3:00 a.m. (Site 3). A modified version of the standard U. S. Department of Transportation questionnaire consisted of questions dealing with the respondent's place of residence, driving habits, drinking habits, drinking attitudes and knowledge, demographic data, and, most importantly, the blood alcohol concentration (BAC) reading on the breath test. A copy of the questionnaire is shown in Appendix A.

The roadside procedure involved the use of "coordinators" as liaison between the motorist and the interviewer. The survey coordinators selected the vehicles to be stopped by the assisting policemen, designating the first eligible vehicle whenever a vacancy existed within the mobile vans which were used for the interviews. The policemen simply directed the motorist out of the line of traffic and over to the coordinators, who were identified by their white coats. It was the

*The first five roadside surveys were conducted by personnel from the Virginia Highway and Transportation Research Council. The sixth was conducted by the ASAP evaluation staff under the direction of Dr. Susan Clark.

coordinator's responsibility to secure a motorist's cooperation in the survey. After securing a motorist's cooperation the coordinator led him to one of the two interview vans where a lab technician greeted him and immediately administered a breath test to obtain his BAC level. Then the questionnaire was administered and, by the time the interview was finished, the BAC reading had been calculated and was recorded on the questionnaire. The motorist was thanked for his cooperation and allowed to proceed on his way if his BAC reading was under .10%. Those drivers whose BAC's were .10% or above were given options of being driven by a sober passenger when available or by volunteers. Subjects who were slightly above .10% were also given the option of remaining at the site for a sufficient period of time for their BAC to drop below .10% upon retesting.

Telephone Survey Procedures

In 1975, telephone surveys replaced the household surveys which were held in Fairfax from 1971-1974 inclusive. The respondents were persons 16 years of age and over who resided in the ASAP area and whose households were listed in the 1975 and 1976 Northern Virginia telephone directories. A sample of 500 persons were interviewed during each survey. Approximately 50% of the sample was male and 50% female, and at least 5% were between the ages of 16 and 21. The survey used a modified version of the standard questionnaire prepared by the Office of Driver and Pedestrian Programs of the National Highway Traffic Safety Administration which appears in Appendix B. Interviews were conducted between the hours of 5 and 9 p.m., Monday through Thursday, and between 12 m. and 5 p.m., Friday and Sunday. The first survey was conducted between June 6 and June 15, 1975. The second was conducted between December 5 and December 14, 1975. The third was conducted between June 4 and June 13, 1976, and the fourth between December 3 and December 12, 1976.

ANALYSIS

The findings of the two surveys touching upon the effectiveness of the public information and education countermeasure fall into four basic categories; namely, (1) awareness of alcohol as a serious problem and of alcohol countermeasures, (2) knowledge of drinking and driving, (3) attitudes toward coping with drunken drivers, and (4) behavior of bystanders in relation to drunken drivers. In essence, each topic represents one of the functions of the countermeasure, and while the results of the telephone and roadside surveys do not always comprehensively assess the

countermeasure's effectiveness in terms of each category, they do provide indications of the impact of the public information program in Fairfax.

Awareness of Alcohol and Alcohol Countermeasures

One of the primary goals of the public information countermeasure is to increase public awareness of drunk driving as a serious problem rather than a "folk crime", and to publicize the ASAP program designed to deter drinking and driving. Several of the questions on the telephone survey, and its predecessor, the household survey, address these activities. Respondents were first asked for their assessment of drunk driving as a social problem. As seen in TABLE 1 a majority of subjects on all of the telephone surveys felt that drunk driving was either an extremely important or very important problem. However, significantly fewer respondents showed the same concern on the first survey as compared to the subsequent surveys. When asked if they had heard any national or local advertising, most respondents replied that they had (see TABLE 2), but the percentage of respondents who were aware of the advertising increased slightly over time although this increase was not significant.

TABLE 1

"How important a problem do you feel drunk driving is?"
(Responses in Percentages)

<u>Response</u>	<u>June 1975</u>	<u>Dec. 1975</u>	<u>June 1976</u>	<u>Dec. 1976</u>
Extremely	49.0	47.8	46.4	52.8
Very	41.4	34.2	40.6	35.4
Somewhat	9.2	16.4	11.6	11.4
Not At All	0.4	1.5	1.2	0.4

TABLE 2

"Do you recall having heard or seen any drinking and driving advertising in the past few months?" (Responses in Percentages)

Telephone Survey

<u>Response</u>	<u>June 1975</u>	<u>Dec. 1975</u>	<u>June 1976</u>	<u>Dec. 1976</u>	<u>Roadside Survey* Oct. 1975</u>
Yes	72.8	69.9	73.9	73.3	75.1
No	27.2	30.1	26.1	26.7	24.9

*Wording of this question on the roadside survey was somewhat different from wording on the household surveys. Respondents were asked if they had heard the specific ad series entitled "Friends don't let friends drive drunk".

Two of the most crucial items in the telephone survey questionnaire involve awareness of the ASAP program itself. These questions were among the few which were asked on both the household and telephone surveys and which provide comparisons over several years. As seen in TABLE 3, the year before the Fairfax ASAP became operational 47% of the respondents had heard of some program trying to reduce the incidence of drunk driving. By 1974, the last year of the initial federal funding, this figure had risen to 53%. However, a year later, in both the June and December surveys, this program awareness had declined to about 48%, and was about 39% by December of 1976, lower than the pre-ASAP figure. A similar pattern was displayed when subjects were asked to recall the name of the organization sponsoring the program. As shown in TABLE 4, in 1971 only 3% of the respondents mentioned the ASAP, while by 1974, 16% named the Fairfax project. By June of 1975 16.4% could recall the ASAP, and in December of 1975, this figure had declined to 13.2%. It reached 7.6% by December 1976.

Finally, an alcohol awareness scale was constructed as a measure of overall countermeasure and problem awareness (for detailed information concerning scale construction, see Appendix C). This scale was used to measure relationships between awareness and other variables, such as experience with alcohol or attitudes toward drunken drivers. Awareness was found to be highly related to previous experience with alcohol in that the more experienced a person was in relation to drinking, the more likely he was to be aware of drunk driving as a social problem and of alcohol countermeasures. Younger persons tended to be more aware than older persons, and drinkers more than non-drinkers. These findings are fairly positive in that although the general awareness level declined over time, the groups reached were within the target population — drivers who had had previous experiences with alcohol and who had been capable of being drinking drivers.

In summary, while there has been little change in respondents' perception of drunk driving as a problem and in their exposure to alcohol advertising, there has been a radical decline in their awareness of alcohol countermeasures in general and of the ASAP in particular.

TABLE 3

"Have you heard of a program that is trying to reduce alcohol related traffic deaths?" (Responses in Percentages)

<u>Response</u>	<u>Household Surveys</u>		<u>Telephone Surveys</u>			
	<u>1971</u>	<u>1974</u>	<u>June 75</u>	<u>Dec. 75</u>	<u>June 76</u>	<u>Dec. 76</u>
Yes	47	53	48	48.6	40.2	39.4
No	52	47	52	51.4	59.6	59.8

TABLE 4

"Do you recall what agency or organization is sponsoring the program?" (Responses in Percentages)

<u>Response</u>	<u>Household Surveys</u>		<u>Telephone Surveys</u>			
	<u>1971</u>	<u>1974</u>	<u>June 75</u>	<u>Dec. 75</u>	<u>June 76</u>	<u>Dec. 76</u>
ASAP	3	16	16.4	13.2	10.0	7.6
Other	15	16	11.0	11.6	12.6	10.4
Can't Recall	22	20	20.0	23.6	17.4	21.4
Not Heard of Program	53	48	52.6	51.6	60.0	60.6
No Answer	7	—	—	—	—	—

Knowledge of Drinking and Driving

Since dissemination of information regarding drinking and driving is one of the goals of the public information countermeasure, respondents were asked three specific questions concerning the drinking/driving laws in Virginia and how they pertained to their own personal drinking habits. In some instances, they were also polled concerning myths and misconceptions surrounding the use of alcohol. If the public information countermeasure has been effective, the percentage of randomly selected respondents who answer these questions correctly would increase over time.

As seen in TABLE 5, a majority of the respondents in the telephone and roadside surveys could correctly define the term "blood alcohol concentration" (a respondent's answer was judged substantially correct if he could conceptually or technically define the term).

TABLE 5

Definition of Blood Alcohol Concentration
(Responses in Percentages)

<u>Response</u>	<u>ROADSIDE SURVEY</u>					
	<u>Baseline Survey</u>	<u>Second Survey</u>	<u>Third Survey</u>	<u>Fourth Survey</u>	<u>Fifth Survey</u>	<u>Sixth Survey</u>
Substantially correct	68.3	72.6	80.8	70.3	76.9	76.2
Wrong or don't know	31.7	27.4	19.2	29.7	23.1	23.8
	<u>Household Surveys</u>			<u>Telephone Surveys</u>		
<u>Response</u>	<u>1971</u>	<u>1974</u>	<u>June 1976</u>	<u>December 1976</u>		
Correct	86	88	79.6	82.2		
Incorrect	12	12	20.2	16.6		
No answer	1	2	0.2	1.2		

In terms of the roadside survey, the percentage of correct responses peaked during the third survey then dipped during the fourth. About 77% of the respondents answered correctly during the fifth and sixth surveys, which represents a statistically significant recovery from the fourth survey and a higher level than during the baseline survey. In terms of the household and telephone surveys, a similar pattern was detected. More respondents could define BAC by 1974 than in 1971, but this percentage had declined significantly by June of 1976, only to make a partial comeback by December of 1976.

A similar pattern applies to the respondents' knowledge of the presumptive limit for drunk driving or the blood alcohol level which is considered per se evidence of drunk driving in Virginia (see TABLE 6). The percentage of correct responses peaked during the third survey and then dropped off during the fourth, but recovered during subsequent surveys.

Respondents were then asked how many drinks would be necessary for them to achieve a BAC over the presumptive limit (see TABLE 7). Since one of the basic tenets of the alcohol education program in Fairfax is that every person should know his or her limit, i.e., the number of drinks necessary to reach the presumptive limit, it is to be hoped that a high percentage of persons is able to answer the question correctly. Since this question is phrased personally (how many drinks do you

think you would have to have to be legally drunk), the correct answer would be different for each respondent, based on body weight. To remove this source of variance, each respondent's weight was checked to determine the correct number of drinks needed, and this figure was compared to the figure indicated by the respondent. A majority of the respondents in each category underestimated the number of drinks needed to achieve a BAC over .10%, and very few were able to answer correctly. Also, very few overestimated the number of drinks needed. Although this underestimation may be preferable in terms of avoidance of drunk driving, a majority of the drivers in the community are operating under a misconception, which could reduce the credibility of the program.

On the roadside surveys, respondents were asked to rate themselves by drinker category, from very light drinker to heavy drinker. While this item is partially an attitudinal one since it reflects the respondent's self-perception, the question can also be used as a knowledge item by determining how accurate the respondent's self-diagnosis is through a check against his BAC at the time. There may be several reasons for misdiagnosis, one of which could be a lack of knowledge as to what constitutes heavy drinking and drunk driving. As seen in TABLE 8, 16.1% of the self-reported very light, fairly light, and moderate drinkers had BAC's over the legal limit. If travelling with a BAC this high is habit rather than an unusual occurrence, then these respondents are misperceiving their drinking category.

Finally, a composite knowledge score was computed from the various knowledge items included in the questionnaire and used to determine the characteristics of low knowledge respondents. As with awareness, younger drivers scored higher in knowledge than did older drivers, possibly as a result of recent driver education. It was also determined that alcohol knowledge was positively related to both alcohol awareness and previous experience with alcohol, indicating that an increase in knowledge could positively affect awareness of alcohol abuse and alcohol countermeasures.

In summary, general alcohol knowledge reached a peak in 1973-1974 but began to decline shortly afterward. Levels of knowledge are just now recovering to 1973-74 levels. Meaningful numbers of respondents are not able to answer questions correctly, especially in terms of the presumptive limit and the number of drinks necessary to reach that limit. Thus, there are a substantial number of persons still lacking the basic knowledge necessary to make reasonable decisions concerning how much they can drink and drive.

TABLE 6

Presumptive Level for Drunken Driving in Virginia
(Responses in Percentages)

<u>BAC Level</u>	<u>Roadside Survey</u>					
	<u>Baseline Survey</u>	<u>Second Survey</u>	<u>Third Survey</u>	<u>Fourth Survey</u>	<u>Fifth Survey</u>	<u>Sixth Survey</u>
Any Trace	1.8	1.6	2.0	1.2	2.4	1.6
.05	11.6	16.4	13.9	15.4	20.7	26.6
.08	6.2	10.8	10.2	7.4	12.0	14.5
.10	10.2	20.8*	25.9*	24.4*	23.5*	25.3*
.12	5.1	6.9	3.7	3.0	6.1	5.8
.15	19.0*	7.2	4.7	4.3	5.0	4.9
.20	3.1	3.6	2.6	2.3	3.0	2.2
Don't Know	43.0	32.7	37.0	42.0	27.3	9.0

	<u>Household Survey</u>	<u>Telephone Survey</u>	
	<u>1974</u>	<u>June 1976</u>	<u>December 1976</u>
Any Trace	1	3.2	2.6
.05	16	19.0	15.6
.08	13	10.8	10.4
.10	23*	20.6*	23.0*
.12	6	2.2	5.2
.15	5	2.8	7.0
.20	2	5.0	2.8
Don't Know	35	36.4	33.4

*The presumptive level for drunken driving in Virginia was changed in 1972 from .15% to .10%. An asterisk indicates a correct response.

TABLE 7

Number of Drinks Necessary for a BAC \geq .10% Adjusted
for Respondent's Weight
(Responses in Percentages)

<u>Response</u>	<u>Telephone Survey</u>		<u>Roadside Survey</u>
	<u>June 1976</u>	<u>December 1976</u>	<u>October 1976</u>
Correct	12.3	11.5	9.7
Too low	61.6	65.8	68.9
Too high	26.1	22.7	21.4

TABLE 8

BAC by Self-Reported Drinking Classification, 1976
(Responses in Percentages)

BAC %	<u>Roadside Survey</u>			
	<u>Very Light Drinker</u>	<u>Fairly Light Drinker</u>	<u>Moderate Drinker</u>	<u>Fairly Heavy & Heavy Drinker</u>
.00-.015	76	72	55	61
.02-.04	9	15	14	9
.05-.09	12	9	22	9
.10-.14	1	3	7	9
.15-.19	0.6	0.7	2	9
.20% +	0.5	0.3	1	4

Attitudes Toward Coping With Drunken Drivers

It is generally assumed that if the public information countermeasure is successful in reaching a significant portion of the Fairfax community, these persons will experience a change in attitude toward drunk driving, depending upon the content and quality of the campaigns involved. The main thrust of a recent national campaign has been in the area of bystander intervention, the interaction of a nonintoxicated person with someone who has been drinking too heavily in order to avert a drunk driving episode. The telephone survey questionnaire extensively questions respondents as to their attitudes toward bystander intervention, and these items may be used to extrapolate the person's behavior, since many of the questions are phrased in terms of his/her likelihood of behaving in a given manner. Respondents were also asked to assess their support for various countermeasure activities, including public information campaigns.

In terms of their overall attitude toward bystander intervention a majority of the respondents strongly agreed that it's a person's responsibility as a good citizen to stop a friend or relative from driving while drunk (see TABLE 9). However, agreement with this statement decreased over time. A much smaller percentage were willing to take physical action to restrain the driver (see TABLE 10). The percentage of persons who strongly agreed with the use of physical action also declined significantly between surveys.

After the sample's agreement with bystander intervention had been ascertained, respondents were polled concerning their likelihood of using various methods to prevent a drunken person from driving (see TABLE 11). Driving the person home was the most popular method, while calling a taxi for the person and using physical restraint were the least popular methods.

While there were variations between surveys in the popularity of almost all the methods, none of these were significant, except the increase in the probability of using physical restraint.

In terms of socially oriented behaviors, respondents were asked to assess the likelihood of behaving in certain ways as the host or hostess at a party (see TABLE 12). Respondents were most likely to serve food with alcoholic beverages and least likely to ask who was driving home before serving drinks. There were significant declines in the probability of exhibiting several behaviors between surveys, including asking who was driving home and not offering drinks to an intoxicated guest. However, respondents were significantly more likely to stop serving alcohol at a certain time and replace it with nonalcoholic beverages and food.

Respondents were then asked to determine if they would support various types of alcohol countermeasures. Over 90% of all respondents stated that they would support greater police enforcement efforts and public information campaigns (see TABLE 13). Less popular but still supported by the majority were more severe penalties for drunken drivers.

An attitude scale was constructed from items contained in the telephone survey questionnaire in order to assess overall attitude changes (again, see Appendix C for more detailed information concerning scale construction). Previous alcohol experience was found to be significantly related to alcohol related attitudes. A similar relationship existed between awareness and attitude although there was much more of a tendency for the most positive attitudes to coincide with the highest level of awareness and for only mildly positive attitudes to be associated with low awareness levels.

In summary, attitudes toward intervening in a drunk driving situation have become less positive over time, while the probability of using various techniques to avert this situation remains relatively constant. However, the probability of exhibiting certain socially oriented behaviors as the host/hostess at a party has changed significantly. Respondents are now more likely to close the bar at a given time and serve food and nonalcoholic beverages, while they are less likely to ask who is driving home, to not serve drinks to an intoxicated guest, and to delegate driving responsibilities at the beginning of the party.

TABLE 9

"It's a Person's Responsibility as a Good Citizen to Stop
a Friend or Relative from Driving While Drunk"
(Responses in Percentages)

Telephone Survey

<u>Response</u>	<u>June 1975</u>	<u>Dec. 1975</u>	<u>June 1976</u>	<u>Dec. 1976</u>
Strongly Agree	91.7	90.1	81.2	86.2
Somewhat Agree	6.4	8.6	16.3	10.9
Somewhat Disagree	1.3	0.3	1.2	2.6
Strongly Disagree	0.6	1.0	1.2	0.2
Mean	3.89	3.87	3.77	3.83

TABLE 10

"When Friends are Involved, a Person Should be Willing
To Take Even Physical Action to Stop the Person
From Driving Drunk"
(Responses in Percentages)

Telephone Survey

<u>Response</u>	<u>June 1975</u>	<u>Dec. 1975</u>	<u>June 1976</u>	<u>Dec. 1976</u>
Strongly Agree	62.3	51.3	46.0	45.3
Somewhat Agree	25.8	37.4	39.8	39.8
Somewhat Disagree	5.8	7.9	10.2	12.0
Strongly Disagree	6.1	3.3	4.0	2.9
Mean	3.44	3.37	3.28	3.27

TABLE 11

Methods of Detaining Drunken Drivers by Order of Preference

<u>Method</u>	<u>Order of Preference</u>	<u>Significant Changes Between Surveys</u>
Drive person home	1	N.S.
Ask person to stay overnight	2	N.S.
Call a taxi for the person	3	N.S.
Take the person's key away	4	N.S.
Get assistance to restrain person	5	Yes, increase in popularity

TABLE 12

Socially Oriented Alcohol Behaviors by Order of Preference

	<u>Order of Preference</u>	<u>Significant Change Between Surveys</u>
Serve food with alcohol	1	Yes, inc. in pop.
Stop serving alcohol at a certain time	4	Yes, inc. in pop.
Ask who is driving home	5	Yes, dec. in pop.
Not offer drinks to an intoxicated guest	3	Yes, dec. in pop.
Delegate driving responsibilities before the party	2	Yes, dec. in pop.

TABLE 13

Support for Countermeasure Activities
(Responses in Percentages)
"Would you support the following?"

(1) Greater police enforcement of drunk driving laws

<u>Response</u>	<u>June 1975</u>	<u>Dec. 1975</u>	<u>June 1976</u>	<u>Dec. 1976</u>
Yes	93.2	90.6	90.0	92.8
No	6.4	9.4	10.0	7.2
Refusal	0.4	—	—	—

(2) More severe penalties for drunk driving

<u>Response</u>	<u>June 1975</u>	<u>Dec. 1975</u>	<u>June 1976</u>	<u>Dec. 1976</u>
Yes	76.2	68.2	71.4	76.8
No	18.8	31.6	28.4	22.8
Refusal	5.0	0.2	—	0.4

(3) Public information campaigns

<u>Response</u>	<u>June 1975</u>	<u>Dec. 1975</u>	<u>June 1976</u>	<u>Dec. 1976</u>
Yes	91.6	89.4	91.8	90.2
No	8.2	10.6	8.0	9.6
Refusal	0.2	—	—	0.2

Behavior in Relation to Alcohol and Drunk Driving

There are two types of behavior that the public information and education countermeasure was designed to influence. Initially, it was hoped that the public's behavior in relation to bystander intervention would be impacted and ultimately this increase in awareness would influence the individual's own drinking and driving behavior. While it is realized that an individual's account of his own behavior may be somewhat unreliable, these self-reports may give some indication as to changes in these two types of behaviors which may have occurred over time.

The ultimate measure of the success of each of the ASAP countermeasures is found in objective behaviors, in this case the behavior of the respondent as a nonintoxicated bystander confronted with a potential drunk driving situation. If the respondent has been sufficiently impressed with the importance of intervening in a drunk driving situation, then his behavior should mirror this concern. During the telephone survey, subjects were asked if they had ever found themselves in such a situation, if they actually stopped the driver, and what technique they used to do so. As seen in TABLE 14, a majority of those persons who had been in a heavy drinking situation had stopped the potential drunken driver. This finding was consistent for all surveys. TABLE 15 shows the initial actions that the respondents took to stop the driver. In that table it can be seen that the popularity of the various methods varied somewhat between surveys. The most popular method across all the surveys was to either drive the person home or offer to drive.

The respondents on the telephone surveys were also asked to relate aspects of their own drinking and driving behavior, in particular, whether they ever drove after having something to drink (see TABLE 16).

In 1971, 38% of the household survey respondents claimed to hardly ever drive after drinking; this rose to 43% by 1974. The percentage dropped to 28% by June of 1976 and remained constant in December. Conversely, the percentage of respondents claiming that they never drive after drinking rose from 28% to 40.8% between the household and telephone surveys. While this shift could indicate a self-reported decrease in drinking and driving, it could also be attributable to the different interviewing procedures used in the household and telephone surveys.

Those subjects who admitted to driving after having something to drink were then asked how many drinks was the most they would have and still continue to drive (see TABLE 17).

While there were no significant differences on this item between the two telephone surveys, the responses were significantly different from previous household surveys. The telephone survey respondents were more likely to report a smaller number of drinks as their maximum than were household survey respondents. As seen in TABLE 18 when asked if they had ever been out on the road when they thought they really shouldn't have, the household survey respondents were more likely than were the telephone survey respondents to say that they had.

Finally, to relate overall behavior to other factors, a composite behavior scale was constructed as shown in Appendix C. Alcohol related behavior was found to be significantly related to both alcohol experience and awareness. As levels of experience and awareness increased, the positive aspects of alcohol related behavior, especially bystander intervention, also increased. A similar relationship, which approached significance, was found between overall attitude and behavior, in that a positive attitude was associated with positive behavior. Thus, by increasing awareness, the public information countermeasure could positively affect both attitudes and behaviors.

In summary, in relation to the household survey findings, fewer telephone survey respondents reported ever having driven after having something to drink. The maximum number of drinks respondents would have and still continue to drive decreased significantly, along with the percentage of respondents reporting that they had at some time driven when they felt that they shouldn't have. While these improvements in self-reported behavior were significantly different from that reported on the 1974 household survey, there were no significant differences in behavior on the June and December 1976 telephone surveys.

TABLE 14

"When in a situation where a friend was about to drive after drinking too much, did you stop him?" (Responses in Percentages)

<u>Response</u>	<u>Telephone Survey</u>				<u>Roadside Survey</u>
	<u>June 1975</u>	<u>Dec. 1975</u>	<u>June 1976</u>	<u>Dec. 1976</u>	<u>Oct. 1976</u>
Yes	70.1	70.9	62.4	74.2	75.2
No	29.9	29.1	37.6	25.8	24.8

TABLE 15

"What actions did you take to stop the driver?" (Responses in Percentages)

	Telephone Survey				Roadside Survey
	June 1975	Dec. 1975	June 1976	Dec. 1976	1976
Drove the person home	40.2	44.7	33.3	21.3	52.7
Offered to drive	13.0	9.4	19.3	27.7	8.3
Offered a room for the night	10.9	11.8	12.3	10.6	11.9
Called a taxi for the person	2.2	2.4	3.5	—	2.3
Took the person's keys away	10.9	8.2	12.3	8.5	6.8
Restrained the person	7.6	5.9	—	2.1	0.3
Other	15.2	17.6	19.2	29.8	17.7

TABLE 16

"How often do you drive after having something to drink?" (Responses in Percentages)

Response	Household Surveys		Telephone Surveys	
	1971	1974	June 1976	December 1976
Often	6	5	3.4	6.6
Occasionally	22	20	20.2	20.8
Hardly Ever	38	43	28.0	28.8
Never	26	28	40.8	43.8
No Answer	6	4	7.6	—

TABLE 17

"How many drinks is the most you will have in a two-hour period and continue to drive?" (Responses in Percentages)

<u>Response</u>	<u>Household Surveys</u>		<u>Telephone Surveys</u>	
	<u>1971</u>	<u>1974</u>	<u>June 1976</u>	<u>Dec. 1976</u>
One	15	2	22.9	27.5
Two	23	26	43.8	44.2
Three	24	22	19.8	19.6
Four	13	19	7.5	5.0
Five	12	8	1.2	2.2
Six or more	13	20	4.7	1.1

TABLE 18

"When you've driven after drinking, have you ever thought you really shouldn't be on the road?" (Responses in Percentages)

<u>Response</u>	<u>Household Surveys</u>		<u>Telephone Surveys</u>	
	<u>1971</u>	<u>1974</u>	<u>June 1976</u>	<u>Dec. 1976</u>
Yes	48	57	39.2	42.5
No	52	43	60.8	57.5

CONCLUSIONS

The findings of the various reports dealing with the effectiveness of the public information countermeasure fell into four major categories. In terms of awareness of alcohol problems and countermeasures, while there was little change in the respondents' perception of drunk driving as a problem and in their exposure to alcohol advertising, there was a radical decline in awareness of programs designed to reduce alcohol related traffic deaths and in awareness of the ASAP in particular. Regarding alcohol knowledge, levels of awareness reached a peak during the mid years of the project and are just now recovering to 1973-74 levels. Meaningful numbers of respondents are not able to answer questions correctly, especially in terms of the presumptive limit and the number of drinks necessary to reach that limit. Thus, there are a substantial number of persons still lacking the basic knowledge necessary to make reasonable decisions concerning how much they can drink and still drive. In relation to bystander intervention, attitudes toward intervening in a drunk driving situation have become less positive

over time, while the probability of using various techniques to avert this situation has remained relatively constant. Socially oriented behaviors as the host/hostess at a party have changed significantly. Respondents are now more likely to close the bar at a given time and serve food and nonalcoholic beverages, while they are less likely to ask who is driving home, to not serve drinks to an intoxicated guest and to delegate driving responsibilities at the beginning of the party. Finally, in relation to self-reported alcohol related behaviors, fewer respondents reported ever having driven after having something to drink. The maximum number of drinks respondents would have and still continue to drive decreased significantly, along with the percentage of respondents reporting that they had at some time driven when they felt that they shouldn't have. While these improvements in self-reported behavior were significantly different from that reported on the 1974 household survey, there were no significant differences in behavior on the June and December 1976 telephone surveys.

In general, there is little evidence to indicate that the public information countermeasure has been effective in increasing awareness, increasing overall knowledge, or improving attitudes. This lack of general improvement during 1976 could be the result of diminished efforts in the area of public relations. The post of public information director was abolished midway through 1976, and as indicated in TABLE 19, public information activities were drastically curtailed compared to countermeasure efforts from 1972 to 1975. For instance, television spots were cut from 38 in 1975 to 6 in 1976, while radio spots were cut from 93 to 4 over the same period. Similarly, articles appearing in local newspapers were cut from 141 in 1975 to 30 in 1976. Overall, public information activities were cut by 80% in 1976 compared to previous years. While this lack of activity could easily have produced short-term deficiencies, it cannot explain previously existing negative or neutral trends. It is possible, looking at the data in TABLE 19, that the activities of the local public information effort were not directly related to public awareness, since the success of the efforts vary between 1972 and 1975 while the magnitude of the efforts remained essentially constant. At any rate, on the local level, it must be concluded that the public information countermeasure has not met all of its objectives.

TABLE 19

Summary of Public Information Activities
1972 — 1976

Public Information & Education Activities	Previous Year Totals				Report Year 1976				1976 Totals
	1972	1973	1974	1975	1st. Qtr.	2nd. Qtr.	3rd. Qtr.	4th. Qtr.	
TV Spot	0	32	8	38	4	2	0	0	6
TV Special	72	84	81	13	2	0	0	0	2
Radio	126	99	115	93	1	3	0	0	4
Speakers	113	160	127	147	18	16	1	2	37
Newspaper	114	213	186	141	14	4	1	11	30
Other	29	NA	47	41	8	5	0	2	15
TOTAL	454	588	564	473	47	30	2	15	94



APPENDIX A
VOLUNTARY ROADSIDE SURVEY

LOCATION NO. _____
SITE NUMBER 1 _____
2 _____

Date: June _____

1. How many people including yourself were in the car?

1 2 3 4 5 6 7 8 9 10 or more

2a. First, what city or town do you live in? _____
(City of Town)

(Interviewer: Ask 2b and 2c only if necessary: Be sure to enter answers for 2b and 2c.)

2b. What county is that? County: 1 ASAP Jurisdiction
2 Other

2c. And what state? State: 1 Virginia
2 Other

3. How long have you lived there? 1 Less than 1 month
2 1-6 months
3 7-11 months
4 1-2 years
5 3-4 years
6 Over 4 years

4. About how many miles do you yourself drive in a year?
1 Less than 10,000
2 10,000 - 19,999
3 20,000 - 29,999
4 30,000 miles or more

5. In a typical week how many days do you drive?
- | | | | |
|---|-----------|---|------------------------|
| 7 | Every day | 3 | Three days |
| 6 | Six days | 2 | Two days |
| 5 | Five days | 1 | One day |
| 5 | Four days | 0 | None in a typical weel |
6. Do you do most of your driving during:
- 1 Daytime
 - 2 Nighttime
 - 3 About the same
7. Drinking is an accepted part of business and social activity for many people. Do you ever drink beer, wine, or liquor such as whisky, gin, or vodka?
- 1 Yes
 - 2 No Skip to Q. 10
8. Which of these do you drink most often - beer, wine, or liquor?
- 1 Beer
 - 2 Wine
 - 3 Liquor
 - 4 No preference
9. At the present time do you consider yourself to be a:
- 1 Very light drinker
 - 2 Fairly light drinker
 - 3 Moderate drinker
 - 4 Fairly heavy drinker
 - 5 Heavy drinker
10. What do you think the term Blood Alcohol Concentration or blood alcohol level means?
- 1 Respondent's answer completely correct
 - 2 Respondent's answer correct
 - 3 Respondent's answer wrong
 - 4 Respondent doesn't know

11. The Blood Alcohol Concentration is based on a chemical test, such as a breath test, and is used to determine if a person is legally drunk or intoxicated. Which of these do you understand is the legal definition of being drunk in this state?

1. Any trace

2 .05%

3 .08%

4 .10%

5 .12%

6 .15%

7 .20%

8 Don't know

12. How many drinks do you think you would have to drink in a two hour period to reach the level where you would be considered legally drunk?

1 One or less

2 Two

3 Three

4 Four

5 Five

6 Six

7 Seven

8 Eight

9 Nine

10 Ten or more

11 Don't know

13. Have you drunk any beer, wine, or liquor in the last two hours?

1 Yes

2 No Skip to TP Q. 14

(If "Yes" on Q. 13, ask):

13a. How many drinks have you had in the past two hours, counting a bottle or can of beer, or a 4-ounce glass of wine, or 1/2 ounces of liquor each as one drink?

Number

X None

14. On how many days did you have something to drink in the past week?

Number (If 0 Skip 16)

15. What was the most you had on any one day in the past week?

Number

16. In the past year, were you in a situation where someone had been drinking too heavily and was about to drive a car?

Yes -----1 If No
Skip to Question 20 (Next page)
No -----1

17. How many times would you say this happened in the past three months?

Number

18. In the most recent situation, did you take any kind of action to stop the drunk person from driving?

Yes -----1 Ask Next Question
If No Skip to Question 20
No -----2

19. Please tell me what action you took?

DO NOT READ LIST - CHECK OFF ANSWERS (NO MORE THAN TWO)

- Drove the person home -----1
- Offered to drive him/her home -----2
- Offered to let him/her stay over -----3
- Called a taxi ----- 4
- Took his/her keys away ----- 5
- Physically restrained him/her ----- 6

- Got someone else to drive them ----- 7
 - Gave him/her coffee ----- 8
 - Gave him/her a cold shower ----- 9
 - Gave him food ----- 10
 - Called the police ----- 11
 - Other ----- 12
- (Please Specify)

Skip To Q. 25

20. READ: I'd like you to imagine a situation in which a close friend or relative is very drunk and is about to drive a car.

(For Each Phrase Read:)

How Likely Are You To _____ (Question) _____ ?

	Extremely	Very	Somewhat	Not At All
Suggest to the person that you drive him home?	1	2	3	4
21. Suggest to the person that he stay overnight at your home?	1	2	3	4
22. Call a taxi for the person who drank too much	1	2	3	4
23. Take the person's keys away	1	2	3	4
24. Get assistance to restrain the person	1	2	3	4

HAND RESPONDENT CARD "B"

25. Which of these comes closest to your weight? (INTERVIEWER: ESTIMATE IF NECESSARY)

- 1 Less than 100 pounds
- 2 100 - 119 lbs.
- 3 120 - 139 lbs.
- 4 140 - 159 lbs.
- 5 160 - 179 lbs.

- 6 180 - 190 lbs.
- 7 200 -219 lbs.
- 8 220 - 139 lbs.
- 9 240 lbs. or More

26. Are you currently employed?

Yes

No

27. (1) Full Time _____

(2) Part Time _____

HAND RESPONDENT CARD "C"

28. In what 10-year age group do you fall?

- 1 Under 20 years
- 2 20 - 29
- 3 30 - 39
- 4 40 - 49
- 5 50 - 59
- 6 60 or over

29. Sex (OBSERVE AND RECORD)

- 1 Male
- 2 Female

30. Race (OBSERVE AND RECORD)

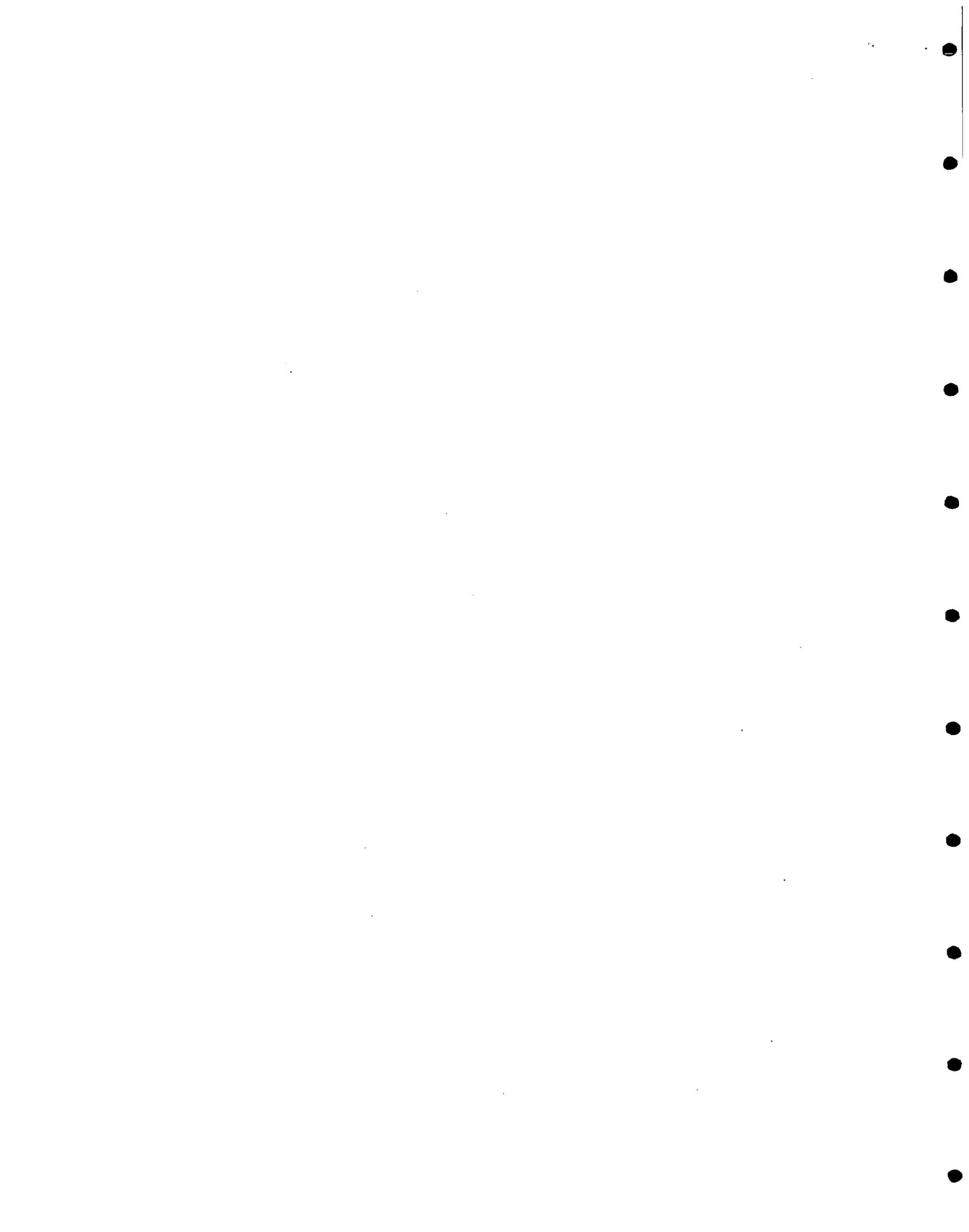
- 1 White
- 2 Black
- 3 Oriental
- 4 Latin
- 5 American Indian
- 6 Other (Specify)

31. BAC reading _____

32 Have you heard of the ASAP Program?

1 Yes _____

2 No _____



APPENDIX B

ASAP TELEPHONE SURVEY

CORE QUESTIONS

INTRODUCTION

READ: Good (Morning/afternoon/evening). My name is _____.
We are conducting a survey for Fairfax County.

INTERVIEWER: USE YOUR QUOTA SHEET TO DETERMINE IF YOU NEED A MALE
OR FEMALE RESPONDENT.

READ: May I speak with a person (MALE, FEMALE AS NEEDED TO FILL QUOTA)
present now in your household who is 16 years of age or older?

READ: I would like to ask you a few questions. Your responses will be very valuable
and will remain strictly confidential. They will be used for statistical purposes
only.

Record: Site ID

RECORD: SELECTED RESPONDENT IS:

Male 1
Female 2

READ: There are many problems and social issues facing our country at this time.
I'd like to know how important you feel some of them are.

1. How important a problem do you think crime in the street is?

Extremely important 1
Very important 2
Somewhat important 3
Not at all 4

2. How important a problem do you think drug abuse is ?

- Extremely important..... 1
- Very important 2
- Somewhat important 3
- Not at all 4

3. How important a problem do you think drunk driving is ?

- Extremely important 1
- Very important 2
- Somewhat important 3
- Not at all 4

READ: I would like to talk to you about occasions where alcoholic beverages are served.

4. In the past three months, have you been in a situation where alcoholic beverages were served?

- Yes 1 CONTINUE
- No 2 SKIP TO QUESTION 37

5. Which one phrase best describes how often you have been in this type of situation in the past three months period? Would you say it was _____?

(READ LIST UNTIL YOU GET AN ANSWER)

- Daily1
- 2-6 times a week 2
- Once a week 3
- Once every 2 or 3 weeks 4
- Once a month 5
- Less than once a month 6 SKIP TO QUESTION 37

READ: I'm going to read you a series of statements describing some aspect surrounding the use of alcoholic beverages. Do you strongly agree, somewhat agree, somewhat disagree, strongly disagree with each statement? READ STATEMENT FOLLOWED BY: DO YOU STRONGLY AGREE, SOMEWHAT AGREE, SOMEWHAT DISAGREE, OR STRONGLY DISAGREE.

- | | Strongly
Agree | Somewhat
Agree | Somewhat
Disagree | Strongly
Disagree |
|--|-------------------|-------------------|----------------------|----------------------|
| 6. It's a person's responsibility to stop a friend or relative from driving when drunk | 1 | 2 | 3 | 4 |

READ ALL QUESTIONS

- | | Strongly
Agree | Somewhat
Agree | Somewhat
Disagree | Strongly
Disagree |
|---|-------------------|-------------------|----------------------|----------------------|
| 7. When friends are involved, a person should be willing to take even physical action to prevent them from driving while drunk..... | 1 | 2 | 3 | 4 |
| 8. In the past month, have you discussed with anyone the topic of drunk driving?
Yes 1
No 2 | | | | |
| 9. In the past three months, were you in a situation where someone had been drinking too heavily and was about to drive a car?
Yes 1
No 2 | | | | |
| 10. How many times would you say this happened in the past three months?

Number

Past three months _____ | | | | |
| 11. In the most recent situation, did you take any kind of action to stop the drunk person from driving?
Yes 1 ASK NEXT QUESTION
No 2 SKIP TO QUESTION 14 | | | | |
| 12 & 13. Please tell me what actions you took? | | | | |

DO NOT READ LIST - CHECK OFF ANSWERS

- | | |
|---|----|
| Drove the person home | 1 |
| Offered to <u>drive him/her home</u> | 2 |
| Offered to let him/her <u>stay over</u> | 3 |
| Called a <u>taxi</u> | 4 |
| Took his/her <u>keys away</u> | 5 |
| Physically restrained him/her | 6 |
| Got someone else to drive them | 7 |
| Gave him/her <u>coffee</u> | 8 |
| Gave him/her <u>cold shower</u> | 9 |
| Gave him <u>food</u> | 10 |
| Called the <u>police</u> | 11 |
| Other | 12 |

14. Do you know anyone who has been arrested for drunk driving?

- Yes 1
- No 2

15. Drinking is an accepted part of business and social activity for many people. Do you ever drink beer, wine or liquor such as whiskey, gin and vodka?

- Yes 1
- No 2 SKIP TO 21

16. Do you drive?

- Yes 1
- No 2 SKIP TO 21

17. It is both legally and socially acceptable to drive after consuming moderate amounts of alcohol. Have you ever driven after having something to drink?

- Yes 1
- No 2 SKIP TO 21

18. How often do you drive after having something to drink? Would you say it was _____

- Often 1
- Occasionally 2
- Hardly ever 3

(If the answer to question 17 is no, code this question as 4)

19. How many drinks is the most you will have in a two hour period and continue to drive?

- One drink 1
- Two drinks 2
- Three drinks 3
- Four drinks 4
- Five drinks 5
- Six drinks 6
- Seven drinks 7
- Eight drinks 8
- Nine drinks 9
- Ten or more 10

20. When you've driven after drinking, have you ever thought you really shouldn't be on the road?

Yes 1
 No 2

READ: I'd like you to imagine a situation in which a close friend or relative is very drunk and is about to drive a car.

FOR EACH PHRASE READ:
 HOW LIKELY ARE YOU TO _____ (QUESTION) _____ ?

	Extremely	Very	Somewhat	Not At All
21. Suggest to the person that you drive him home?	1	2	3	4
22. Suggest that the person stay overnight at your home?	1	2	3	4
23. Call a taxi for the person who drank too much	1	2	3	4
24. Take the person's keys away	1	2	3	4
25. Get assistance to restrain the person	1	2	3	4

READ: Now using the same phrases, I would like you to think of yourself as giving a party. How likely are you to _____

	Extremely	Very	Somewhat	Not At All
26. Plan to serve food with the drinks	1	2	3	4
27. Plan a party where drinking is stopped at a certain time and replaced with non-alcoholic beverages and food	1	2	3	4
28. Ask who is driving home before serving drinks	1	2	3	4
29. Not offer drinks to a guest who is becoming intoxicated.	1	2	3	4
30. Agree ahead of time that when two of you go to a party one of you will limit their drinking, and drive home?	1	2	3	4

31. Do you recall having seen or heard any drinking and driving advertising in the past few months?

- Yes 1
- No 2 SKIP TO QUESTION 37

32 & 33. Where did you see or hear it?

READ LIST — MAY HAVE MORE THAN ONE ANSWER

- Radio 1
- Magazine 2
- Newspaper 3
- TV 4
- Radio and TV 5
- Other _____ 6

(Specify)

READ: What was the message about?

34, 35 & 36. DON'T READ LIST — CHECK OFF RESPONSES GIVEN

- People should know how much they can drink 1
- Many fatal crashes are caused by drunk drivers 2
- People who give parties should see that their friends don't drive home drunk 3
- If you are really a person's friend you'll stop him from driving drunk, no matter how reluctant you are 4
- More police are patrolling the street at night to watch for and arrest drunk drivers 5
- Other 6

READ: I am going to read you several statements about drinking and becoming intoxicated. Please tell me if you think each is true or false?

- | | True | False | Don't Know |
|---|------|-------|------------|
| 37. A person drinking on an empty stomach will get drunk faster on the same number of drinks than a person who has just eaten something. | 1 | 2 | 3 |
| 38. If a person sticks to the same kind of drink, he is less likely to get drunk than if he mixes different kinds of drinks, like beer and whiskey or gin and scotch. | 1 | 2 | 3 |
| 39. A small person will get drunk faster than a large person on the same number of drinks. | 1 | 2 | 3 |

- | | True | False | Don't Know |
|--|------|-------|------------|
| 40. Strong black coffee is helpful in sobering a person up before he drives | 1 | 2 | 3 |
| 41. Alcohol will affect a person faster if he's under medication like a tranquilizer or antidepressant. | 1 | 2 | 3 |
| 42. Do you recall what the term Blood Alcohol Concentration Means ? | | | |
| Respondent technically correct | 1 | | |
| Respondent substantially correct | 2 | | |
| Respondent incorrect | 3 | | |
| 43. Blood Alcohol Concentration is based on a chemical test, such as a breath test, and is used to determine if a person is legally drunk or intoxicated. Which of these do you understand is the legal definition of being drunk in Virginia? Would you say it was. | | | |
| Any Trace | 1 | | |
| .05% | 2 | | |
| .08% | 3 | | |
| .10% | 4 | | |
| .12% | 5 | | |
| .15% | 6 | | |
| .20% | 7 | | |
| Don't know | 8 | | |
| 44. How many drinks do you think you would have to have in a two hour period to reach the level where you would be considered legally drunk? | | | |
| One or less | 1 | | |
| Two | 2 | | |
| Three | 3 | | |
| Four | 4 | | |
| Five | 5 | | |
| Six | 6 | | |
| Seven | 7 | | |
| Eight | 8 | | |
| Nine | 9 | | |
| Ten or more | 10 | | |
| Don't know | 11 | | |

READ: Just a few more questions for classification purposes.

45. In which of the following groups does your age fall?

READ LIST UNTIL YOU GET AN ANSWER

- 16 through 21 1
- 22 through 24 2
- 25 through 34 3
- 35 through 49 4
- 50 and over 5

46. Are you:

- Married 1
- Single 2
- Divorced 3
- Separated 4
- Widowed 5
- Other 6

47. In which city or town do you live?

- ASAP area 1
- Other Virginia 2
- Other State 3

48. How long have you lived at this location?

- Less than one month 1
- 1-6 months 2
- 7-11 months 3
- 1-2 years 4
- 3-4 years 5
- Over 4 years 6

49. In which of these groups does your weight fall?

Less than 100 lbs.....	1
100-119 lb.....	2
120-139 lb.	3
140-159 lb.....	4
160-179 lb.....	5
180-199 lb.....	6
200-219 lb.....	7
220-239 lb.....	8
240 or more	9

50. If you drive after drinking too much, what do you think your chances of being stopped by the police are?

High	1
50-50	2
Low	3

Would you support the following actions?

51. Greater police enforcement of drunk driving law	Yes	1
	No	2
52. Public Information Campaign about drunk driving	Yes	1
	No	2
53. More severe penalties for drunk drivers such as a fine, jail or permanent loss of license	Yes	1
	No	2

54. Have you heard of a program that is trying to reduce alcohol related traffic deaths?

Yes
No SKIP TO END

55. Where did you read or hear about it?

1. ANOTHER PERSON
2. RADIO
3. TV
4. MAGAZINE
5. NEWSPAPER
6. BILLBOARD, ROAD SIGNS
7. PAMPHLET, LEAFLET
8. OTHER

56. Do you recall what agency or organization is sponsoring the program?

- (a) ASAP
- (b) Other
- (c) Can't recall

This survey is sponsored by the Alcohol Safety Action Project

Thank you for your cooperation

Phone # _____

Interviewer _____

Date _____

NAME _____

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EXAMPLE

- WRONG
1 (A) ○ ○ ○ ○
- WRONG
2 (A) ○ ○ ○ ○
- WRONG
3 (A) ○ ○ ○ ○
- RIGHT
4 (A) ○ ○ ○ ○ ○

IMPORTANT DIRECTIONS FOR MARKING ANSWERS

Use black lead pencil only (#2½ or softer).
Make heavy black marks that fill the circle completely.
Erase clearly any answer you wish to change.
Make no stray marks on this answer sheet.

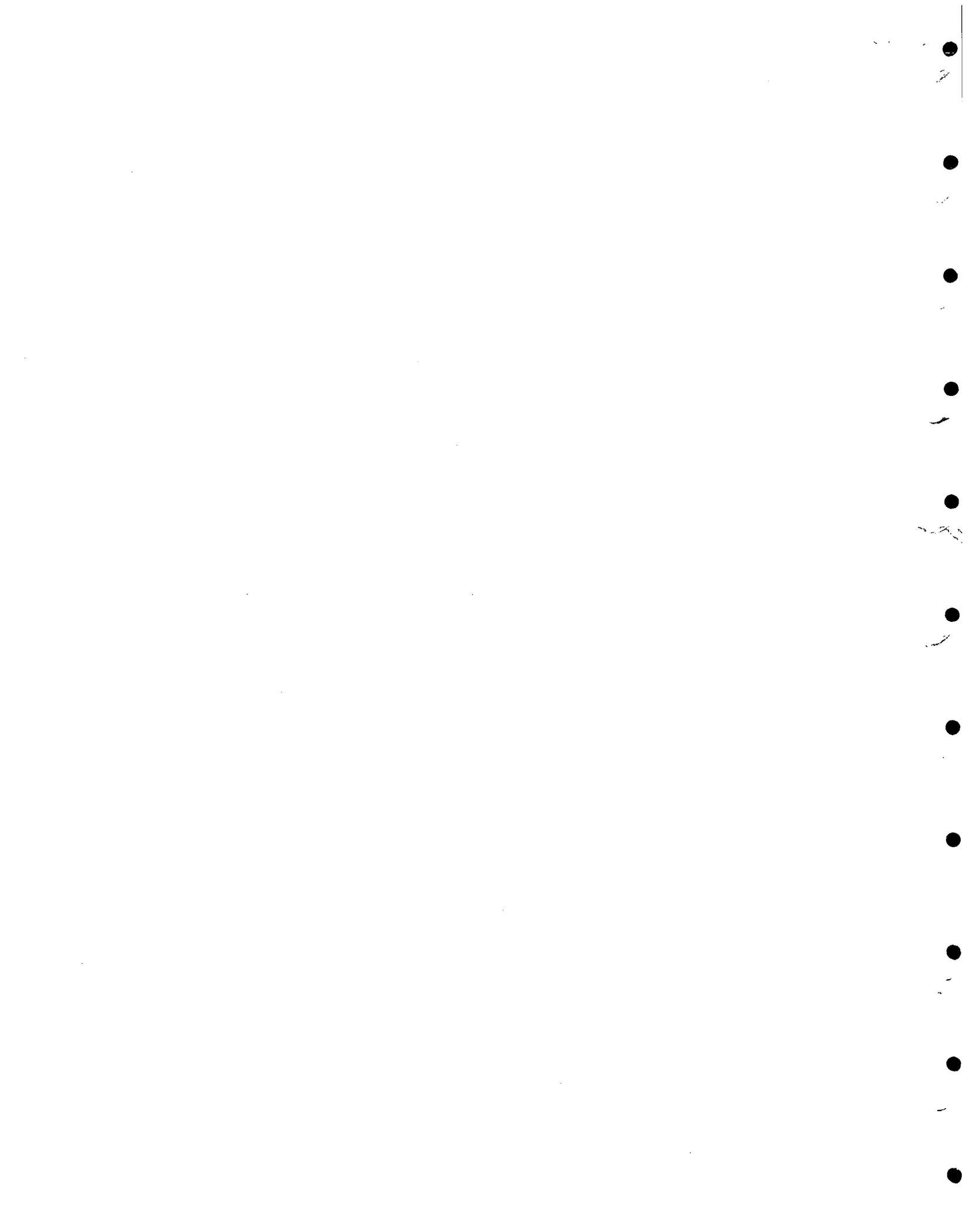
← REFER TO THESE EXAMPLES BEFORE STARTING PRACTICE EXERCISES →

PRACTICE

- 1 2 3 4 5
1 (A) ○ ○ ○ ○
- 1 2 3 4 5
2 (A) ○ ○ ○ ○
- 1 2 3 4 5
3 (A) ○ ○ ○ ○
- 1 2 3 4 5
4 (A) ○ ○ ○ ○

1 2 3 4 5 1 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 11 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 21 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 31 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 41 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 51 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 2 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 12 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 22 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 32 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 42 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 52 (A) <input checked="" type="radio"/> ○ ○ ○ ○
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1 2 3 4 5 5 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 15 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 25 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 35 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 45 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 55 (A) <input checked="" type="radio"/> ○ ○ ○ ○
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1 2 3 4 5 10 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 20 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 30 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 40 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 50 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 60 (A) <input checked="" type="radio"/> ○ ○ ○ ○

1 2 3 4 5 61 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 71 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 81 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 91 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 101 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 111 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 62 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 72 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 82 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 92 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 102 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 112 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 63 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 73 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 83 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 93 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 103 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 113 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 64 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 74 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 84 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 94 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 104 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 114 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 65 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 75 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 85 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 95 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 105 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 115 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 66 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 76 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 86 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 96 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 106 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 116 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 67 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 77 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 87 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 97 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 107 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 117 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 68 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 78 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 88 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 98 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 108 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 118 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 69 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 79 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 89 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 99 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 109 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 119 (A) <input checked="" type="radio"/> ○ ○ ○ ○
1 2 3 4 5 70 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 80 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 90 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 100 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 110 (A) <input checked="" type="radio"/> ○ ○ ○ ○	1 2 3 4 5 120 (A) <input checked="" type="radio"/> ○ ○ ○ ○



APPENDIX C

CONSTRUCTION OF NUMERICAL SCALES

All scales constructed for this survey are of a simple Likert type and were not refined using statistical scaling techniques. They were used for relative comparisons only.

A. Alcohol Experience Scale - The experience scale measures the extent to which the respondent has been involved in alcohol-related incidents. It is based upon how often the respondent had been in a situation where alcoholic beverages were served (Questions 4 and 5), how often he had been in a situation where someone had been drinking too heavily and was about to drive (Questions 10 and 13), and whether he knew someone who had been arrested for drunk driving. The items are coded as follows:

Questions 4 and 13:	2- yes, 1-no
Question 5	: 6-daily, 5-2 to 6 times a week, 4-once a week, 3-once every 2 or 3 weeks, 2-once a month, 1-less than once a month
Question 10	: Numerical answer
Question 14	: 2-yes, 1-no

B. Alcohol Awareness Scale - This scale measures three aspects of alcohol awareness. These are: (1) whether the respondent has discussed the topic of drunk driving in the past month (question 8), (2) whether the respondent had seen or heard any drunk advertising (question 40), and whether he could recall the messages the ads covered (questions 34 and 35) and (3) whether the respondent had heard of the ASAP program (questions 54 and 56). The respondent is awarded 'points' as follows:

Questions 8, 40 and 54:	2-yes, 1-no
Questions 34,35	: 1-remembered, 0- couldn't recall
Question 56	: 2-ASAP, 1-other, 0- couldn't recall

C. Alcohol Attitude Scale - (Bystander intervention) - This simple attitude scale measures such aspects of bystander attitude as (1) whether the respondent feels it's his responsibility to stop a person from drunk driving (question 6), even if it requires physical action to do so (question 7), (2) how likely he is to use certain techniques to stop someone from drinking and driving (questions 21-25), and (3) how likely he is to exhibit certain behaviors as a host in order to stop a guest from driving drunk (questions 26-30). The items are coded as follows:

Questions 6, 7	: 4-strongly agree, 3-somewhat agree, 2-somewhat disagree, 1-strongly disagree
Questions 21-30	: 4-extremely likely, 3-very likely, 2-somewhat likely, 1-not at all likely

D. Alcohol Behavior Scale - This scale provides an indication of how liberal the respondent's personal behavior is in relation to alcohol. It measures such behavioral aspects as (1) How often the respondent drives after having something to drink (questions 17 and 18), (3) how many drinks he would have and still continue to drive (question 19) and (4) whether the respondent has even been on the road when he felt he really shouldn't have been driving (question 20). The items are scored as follows:

Questions 15, 17, and 20: 2-yes, 1-no
 Question 18 : 3-often, 2-occasionally, 1-hardly ever
 Question 19 : numerical answer

E. Alcohol Knowledge Scale - This scale is designed to reflect the respondent's knowledge in relation to alcohol. The items deal with (1) whether the respondents believes certain "myths" surrounding the use of alcohol, (questions 37 to 41), (2) whether the respondent knows the correct definition of blood alcohol concentration (question 42), (3) whether he knows the presumptive limit in Virginia (question 43), and (4) whether he knows how many drinks he must drink to reach the presumptive limit (question 44). The items are coded as follows:

Questions 37-41, and 43: 2-correct, 1-incorrect
 Question 42 : 3-technically correct,
 2-substantially correct,
 1-incorrect
 Question 44 : 2-correct, 1-incorrect (based
 upon the individual's weight)

In addition to the scale scores just described, respondent's estimates of the number of drinks necessary to make them legally drunk were scored against their weight to determine the "correct" answer for each individual. The method for scaling appears below:

<u>Weight</u>	<u>Number of drinks</u>
Less than 100 lb to 139 lb.	4
140 lb. to 179 lb.	5
180 lb. to 219 lb.	6
220 lb. to 240 lb. or more	7