FINAL REPORT

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

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Cheryl Lynn Research Analyst

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

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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. 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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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 compaign 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. 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)

Response	June 1975	Dec. 1975	June 1976	Dec. 1976
Extremely	49.0	47.8	+6.4	52.8
Very	41.4	34.2	+0.6	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

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

[&]quot;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 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)

	Household	Surveys	Te	elephone	Surveys	
Response	1971	1974	June 75	Dec. 75	June 76	<u>Dec. 76</u>
Yes No	4.7 5.2	53 47	48 52	48.6 51.4	40.2 59.6	39.4 59.8

TABLE 4

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

	Household	Surveys	Te	elephone	Surveys	
Response	1971	1974	June 75	Dec. 75	June 76	<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 Pro-	53	48	52.6	51.6	60.0	60.6
gram		40	32.0	31.0	00.0	00.0
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)

ROADSIDE SURVEY

		-					
Response	Baseline Survey	Second Survey	Third Survey	Fourth Survey		Sixth Survey	
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	
	Household S	urveys		Telepho	ne Surv	/eys	
Response	1971	1974	<u>J</u>	une 1976	Decen	mber 1976	
Correct Incorrect No answer	86 12 1	88 12 2		79.6 20.2 0.2	16	2.2 5.6 L.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)

Roadside Survey

BAC Level	Baseline Survey	Second Survey	Third Survey	Fourth Survey	Fifth Survey	Sixth Survey
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

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	1974	<u>June 1976</u>	December 1976
Any Trace	1	3.2	2.6
.05	16	19.0	15.6
.08 .10	13 23*	10.8 20.6*	10.4 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 ≥ .10% Adjusted for Respondent's Weight (Responses in Percentages)

	Roadside Survey		
Response	<u>June 1976</u>	December 1976	October 1976
Correct Too low Too high	12.3 61.6 26.1	11.5 65.8 22.7	9.7 68.9 21.4
		9	

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

Roadside Survey

BAC %	Very Light Drinker	Fairly Light Drinker	Moderate Drinker	Fairly Heavy & Heavy Drinker
.00015	76	12	55	61
.0204	9	L5	14	9
.0509	12	9	22	9
.1014	1	3	7	9
.1519	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.

"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

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

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

TABLE 11

Methods of Detaining Drunken Drivers by Order of Preference

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

TABLE 12

Socially Oriented Alcohol Behaviors by Order of Preference

	Order of Preference	Significant Change Between Surveys
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 responsi- bilities 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

Response	June 1975	Dec. 1975	<u>June 1976</u>	Dec. 1976
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

Response	June 1975	Dec. 1975	June 1976	Dec. 1976
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

Response	<u>June 1975</u>	Dec. 1975	June 1976	Dec. 1976
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 or 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>T</u>	elephone Su	rvey		D 1 1 1 0
Response	<u>June 1975</u>	Dec. 1975	June 1976	Dec. 1976	Roadside Survey Oct. 1976
Yes No	70.1 29.9	70.9 29.1	62.4 37.6	74.2 25.8	75.2 24.8

TABLE 15

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

		Teleph Surv			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)

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

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

	<u>Househo</u>	ld Surveys	Telephone	Surveys
Response	1971	1974	June 1976	Dec. 1976
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> Househol</u>	d Surveys	Telephone	Surveys
Response	1971	1974	June 1976	Dec. 1976
Yes No	48 52	57 43	39.2 60.8	42.5 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 8	Pre	Previous Year	Year		Rep	Report Ye	Year 1976	9,	1976
Education Activities		Totals	S		lst.	2nd.	3rd.	4th.	Totals
	1972	T8/3	1974	1975	Qtr.	Qtr.	Qtr.	Qtr.	
TV Spot	0	32	∞	38	ⅎ	2	0	0	9
TV Special	72	† ₈	81	13	2	0	0	0	2
Radio	126	66	115	63	Н	က	0	0	#
Speakers	113	160	127	147	18	16	H	2	37
Newspaper	114	213	186	141	14	ⅎ	٦	11	30
Other	29	NA	47	T 11	80	ည	0	2	15
TOTAL	t 5 tr	588	564	473	47	30	7	15	†6

	VOLUNTARY ROADSIBE SURVEY LOCATION NO. Site Number 1 2	$\frac{3701}{1}$
1.	How many people including yourself were in the Car? Date: June	3
	1 2 3 4 5 6 7 8 9 10 OR MORE	4 5
2a.	First, what city or town do you live in? (CITY OR TOWN)	6
	(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	· -7
	2 OTHER	·
2c.	And what state? State: 1 VIRGINIA	8
	2 OTHER	
3.	How long have you lived there? 1 LESS THAN 1 MONTH	
	2 1-6 MONTHS	
	3 7-11 MONTHS	9
	4 1-2 YEARS	
	5 3-4 YEARS	
	6 OVER 4 YEARS	
4.		
	drive in a year? 2 10,000 - 19,999	10
	3 20,000 - 29,999	10
	4 30,000 MILES OR MORE	
5.	In a typical week how many 7 EVERY DAY 3 THREE DAYS	
	days do you drive? 6 SIX DAYS 2 TWO DAYS	
	5 FIVE DAYS 1 ONE DAY	11
	4 FOUR DAYS O NONE IN A TYPICAL WEEK	

3702 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 1 YES and social activity for many people. Do you ever drink beer, wine, or 2 NO \rightarrow SKIP TO Q. 10 liquor such as whiskey, gin, or vodka? 8. Which of these do you drink most often -- 1 BEER beer, wine, or liquor? 2 WINE 3 LIQUOR 4 NO PREFERENCE 9. At the present time do you consider 1 VERY LIGHT DRINKER yourself to be a: 2 FAIRLY LIGHT DRINKER 3 MODERATE DRINKER 4 FAIRLY HEAVY DRINKER 5 HEAVY DRINKER 10. What do you think the term Blood 1 RESPONDENT'S ANSWER COMPLETELY Alcohol Concentration or Blood CORRECT Alcohol Level means? 2 RESPONDENT'S ANSWER CORRECT SEE CARD #10 3 RESPONDENT'S ANSWER WRONG 4 RESPONDENT DOESN'T KNOW HAND RESPONDENT CARD "A" 11. The Blood Alcohol Concentration 1 ANY TRACE is based on a chemical test, such as a breath test, and is used to 2 .05% determine if a person is legally drunk or intoxicated. Which of 3 .08%

4 .10%

A-2

5 .12%

6 .15%

7 .20%

8 DON'T KNOW

these do you understand is the

this state?

legal definition of being drunk in

17

16

12

13

14

		3703
12.	How many drinks do you think you 1 ONE OR LESS 7 SEVEN would have to drink in a two hour period to reach the level where 2 TWO 8 EIGHT you would be considered legally drunk? 3 THREE 9 NINE	18 19
	WAIT FOR RESPONSE 4 FOUR 10 TEN OR MORE	
	5 FIVE 11 DON'T KNOW 6 SIX	
13.	Have you drunk any beer, wine, or 1 YES liquor in the last two hours? 2 NO SKIP TP Q. 14 (IF "YES" ON Q. 13, ASK):	20
	13a. How many drinks have you had in the last two hours, counting a bottle or can of beer, or a 4-ounce glass of wine, or 1-1/2 ounces of liquor each as one drink? X NONE	21 22
14.	On how many days did you have something (IF 0 SKIP to drink in the past week? # 16)	23
15.	What was the most you had on any one day # in the past week?	24 25
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 SKIP TO QUESTION 20 (Next Page)	26
17.	How many times would you say this happened in the past three months?	
	Number Past three months	27 28
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 NO 2 IF NO SKIP TO QUESTION 20	-29

19. Please tell me what actions you took?

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

Drove the person home	1 2 3 4 5 6 7 8 9
Called the police	11
Other (Please Specify)	12

SKIP TO Q. 25

30

31

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		IKELY ARE YOU TO (QUESTION)			?	ľ
		Extremely	Very	Somewhat	Not at All	
	Suggest to the person that you drive him home?	1	2	3	4	32
21.	Suggest to the person that he stay overnight at your home?	1	2	3	4	33
22.	Call a taxi for the person who drank too much	1	2	3	4	34
23.	Take the person's keys away	1	2	3	4	35
24.	Get assistance to restrain the person	1	2	3	4	36

A-5

(2) 100 _____

32. Have you heard of the ASAP program? (1) YES _____

INTERVIEWER

ASAP TELEPHONE SURVEY

CORE QUESTIONS

INTRODUCTION

	Good (Morning/afternoon/evening). My name is We are conducting a survey for Fairfax County.
	VIEWER: 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?
	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
	Very important
	Somewhat important
	Not at all 4

	2.	Ilow	importan	t a problem	i do you t	hink drug ab	use is?	
			Very imp Somewha	ortant t importan			2	
	3.	llow	importan	t a problem	n do you t	hink drunk d	riving is?	
		-	Very imp	portant it importan			2	
READ:		would	like to ta	lk to you al	soco troc	sions where	alcoholic be	verages are
	4.			ree months re served?		u been in a s	ituation whe	re alcoholic
				1		NTINUE IP TO QUES	TION 37	
	5.					how often yo period? Wo		in this type o
			(READ I	LIST UNTII	L YOU GE	T AN ANSW	ER)	
			Once a vo	es a week veek ery 2 or 3 very 2 or 3 ve	weeks	2 3 4 5	P TO QUEST	TION 37
READ:	su so sta AG	rround mewha atemei	ding the untagree, nt? REA	se of alcoh somewhat D STATEM	olic beve disagree, ENT FOI	tements desc rages. Do yo strongly di LLOWED BY WHAT DISA	ou strongly a sagree with : DO YOU S	gree, each TRONGLY
					Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
	6.	bilit; rela	y to stop tive from	s responsi- a friend or driving		2	3	4

READ ALL QUESTIONS

12 &

		Strongly Agree	Somewhat Agree		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.	Yes	discussed v	vith anyone f	the topic of o	irunk driving	?
9.	In the past three months, we drinking too heavily and was			nere someor	e had been	
	Yes 1 No 2	SKIP TO	QUESTION 1	14		
10.	How many times would you s	ay this hap	pened in the	past three	months?	
			Number			
	Past three months	• • • • • • • •				
11.	In the most recent situation, drunk person from driving?	did you tal	ke any kind	of action to	stop the	
	Yes 1 A		QUESTION UESTION 14			
13.	Please tell me what actions	you took?				
	DO NOT READ LIST -	снеск об	F ANSWER	3		
	Drove the person hor Offered to drive him Offered to let him/le Called a taxi Took his/her keys a Physically restrain Got someone else to Gave him/her cold	n/her home her stay ov nway ed him/her o drive ther	er	2 3 4 5 6 7 8		

Gave him food Called the police 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
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
48.	How often do you drive after having something to drink? Would you say it was
	Often 1
	Occationally 2
	Hardly ever 3
	(If the answer to question 17 is no, code this question as 4)
19.	llow 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 drin shouldn't be on the road?	ıking, have	you eve	er thought you	ı really
	Yes 1 No 2				
	READ: I'd like you to imagin relative is very drun				riend or
	FOR EACH PHRSE READ: HOW LIKELY ARE YOU TO		(QUEST	'ION)	?
	E	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.	Got assistance to restrain the person	e . 1	2	3	4
	READ: Now using the same a yourself as giving a party. H	•		•	nk of
	E	Extremely	Very	Somewhat	Not At All
26.	Plan to serve food with the drinks	1	2	3	
27.	Plan a party where drinking is stopped at a certain time and replaced with non-	1	2	3	4
	alcoholic beverages and food	1	2	3	4
23.	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 whe two of you go to a party one of you will limit their drinking, and drive home?		2	· 3	4

31.

in the past few months?

	Yes		
32 & 33	3. 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)		
R	EAD: What was the message about?		
34, 35 & 36	. DON'T READ LIST — CHECK OFF RESPONSES GIVEN		
	People should know how much they can drink Many fatal crashes are caused by drunk drivers People who give parties should see that their friends	1 2	
	don't drive home drunk	3	
	More police are patrolling the street at night to watch for and arrest drunk drivers	5	
	Other	6	
	EAD: I am going to read you several statements about drinking ecoming intoxicated. Please tell me if you think each is true	0	
3	7. A person drinking on an empty stomach will True get drunk faster on the same number of drinks	False	Don't Know
	than a person who has just eaten something.	2	3
3	8. 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	2	3
3	or gin and scotch. 9. Λ small person will get drunk faster than a	_	
	large person on the same number of drinks.	2	3

Do you recall having seen or heard any drinking and driving advertising

		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 Conc	entration M	eans?		
	Respondent technically correct	1			
	Respondent substantially correct	2			
	Respondent incorrect	3			
43.	Blood Alcohol Concentration is based on a check a breath test, and is used to determine if a pers or intoxicated. Which of these do you understand definition of being drunk in Virginia? Would you	on is legall I is the lega	y drunk al		
	Any Trace	1			
	. 05%				
	.08%				
	.10%				
	. 12%				
	. 15%				
	. 20%				
	Don't know				
44.	How many drinks do you think you would have to iod to reach the level where you would be consi		_		
	One or less 1				
	Two 2				
	Three 3				
	Four 4				
	Five ., 5				
	Six 6	•			
	Seven 7				
	Fight 8				
	Nine 9				
	Ten or more				
	Double Irmore				

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	T
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	G

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

Loss than 100 lbs	· 1
100-119 lb	2
120-139 lb	3
140-159 lb	4
160-179 lb	5
180-199 lb	U
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 53. More severe penalties for drunk drivers such as 1 Yes a fine, jail or permanent loss of license No
- 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

1 2 3 4 5 0 0 0 0

1 2 3 4 5

180000

SIDE ONE

1 2 3 4 5 51 • © O O O

1 2 3 4 5

41 0 0 0 0 0

GENERAL PURPOSE - NCS - ANSWER SHEET

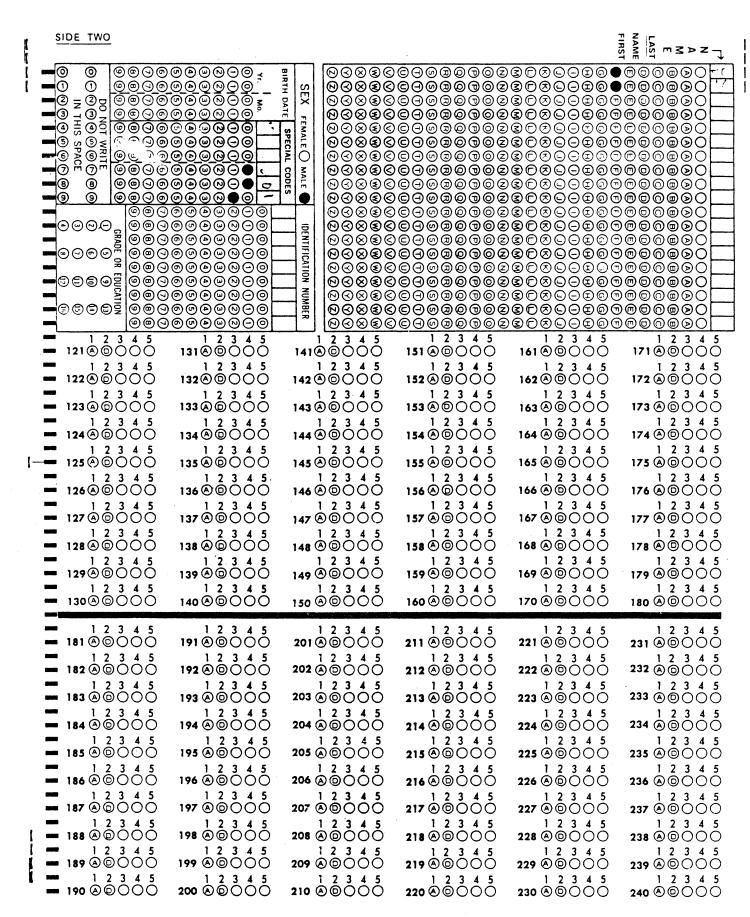
FOR PROCESSING BY	NATIONAL COMPUTER SYSTEMS 4401 West 76th St.,	Minneapolis, Minn.
EXAMPLE WRONG 1 @ \$\infty \cap \cap \cap \cap \cap \cap \cap \cap	IMPORTANT DIRECTIONS FOR MARKING ANSWERS	PRACTICE 1 2 3 4 5 1 @ @ O O
wrong 2 ② ② ○ ○ ○	Use black lead pencil only (#2 $\frac{1}{2}$ or softer). Make heavy black marks that fill the circle completely.	1 2 3 4 5 2 Ø Ø O O
3 @ OOO	Erase clearly any answer you wish to change. Make no stray marks on this answer sheet.	1 2 3 4 5 3 8 0 0 0 0 1 2 3 4 5
4 ⊗ © ○ ● ○	\leftarrow REFER TO THESE EXAMPLES BEFORE STARTING PRACTICE EXERCISES $ ightarrow$	400000

1 2 3 4 5

31 ● ◎ ○ ○ ○

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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 driving advertising (question 40), and whether he could recall the messages the ads conveyed (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 message, 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 respondents 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, respondents' 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:

Weight	Number of Drinks
Less than 100 lb. to 139 lb.	ц
140 lb. to 179 lb.	5
180 lb. to 219 lb.	6
220 lb. to 240 lb. or more	7