

TRENDS IN PUBLIC INFORMATION WITHIN THE FAIRFAX
ALCOHOL SAFETY ACTION PROJECT, 1975

by

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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 two 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.

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 alcohol is a social problem, and to publicize the existence of alcohol countermeasures, specifically the ASAP project. From the two telephone surveys it was found that the Fairfax community's awareness of both alcohol programs in general and the ASAP in particular have declined since 1974. In the second survey fewer persons felt that drunk driving was an extremely or very important problem, and fewer respondents had heard or seen alcohol advertising. While these declines are indicative of a lack of effective information dissemination, there is a differential effect in who is being reached by national and local campaigns. Those persons in the target population who have prior alcohol experience, those who drive, and those who now drink are more aware of alcohol and related countermeasures than are other groups. However, attempts should be made to reach a broader segment of the Fairfax community.

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-year 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. This should be addressed as a high priority item through the public information countermeasure.

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 positive attitudes toward coping with drunken drivers over the last six months of 1975. While the self-reported likelihood of using recommended techniques to avert drunk driving declined slightly, the most significant decreases in likelihood involved socially oriented party behaviors. While respondents were also significantly less likely to support increased police enforcement and more severe penalties for drunken drivers in December than in June, they were also less likely to support public information campaigns, but not significantly.

Attitude levels were found to be related to both alcohol 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 of Bystanders in Relation to Drunken Drivers — 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. 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. There were no significant differences in the percentages of respondents stopping the driver across surveys. A variety of methods were used to avert the drunk driving episode. The method which a respondent used was often related to his self-reported likelihood of using the method.

In general, there is little evidence to indicate that the public information countermeasure was effective in increasing awareness, increasing overall knowledge, or improving attitudes. In fact, both levels of awareness and the positiveness of attitudes were on the decline in 1975. The activities of the public information and education countermeasure should be examined in relation to their effectiveness.

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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 interim 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.*

METHODOLOGY

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

*A more detailed explanation of the method and findings of the two telephone surveys is presented in the report entitled "Drinking-Driving Attitudes, Knowledge, and Behavior: An Analysis of the First Two 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 the First Five Roadside Surveys of the Fairfax Alcohol Safety Action Project".

Roadside Survey Procedures

The first of the five roadside surveys was conducted each night from January 5, 1972, through the early morning hours of January 16, 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, and the final one in October 1975. All five 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). The standard U. S. Department of Transportation questionnaire for roadside surveys was used. This 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 motorists 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 coordinator's responsibility to secure a motorist's cooperation in the survey. The percentages of selected motorists who participated were 91%, 90%, 95%, 95%, and 92%, respectively, for the five surveys. 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, by a member of the local Jaycees, by volunteers from the military, or by volunteers from the ASAP program. 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

The 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 Northern Virginia telephone directory. 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 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 and 5 p.m., Friday and Sunday. The first survey was conducted between Friday, June 6 and Sunday, June 15, 1975. The second was conducted between Friday, December 5 and Sunday, December 14, 1975.

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 both 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 December survey as compared to the June survey. This lessening of concern for or interest in the drunk driving problem over a six-month period may be a seasonal reaction, since situations where alcoholic beverages are served are more immediate in December, or it may reflect a real decline in the impact of public information activities. 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 declined between surveys, although this decrease was not significant.

TABLE 1

"HOW IMPORTANT A PROBLEM DO YOU FEEL DRUNK DRIVING IS?"

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
Extremely important	245 (49.0%)	239 (47.8%)
Very important	207 (41.4%)	171 (34.2%)
Somewhat important	46 (9.2%)	82 (16.4%)
Not at all	2 (0.4%)	8 (1.5%)

TABLE 2

"DO YOU RECALL HAVING HEARD OR SEEN ANY DRINKING AND DRIVING ADVERTISING IN THE PAST FEW MONTHS?"

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
Yes	228 (72.8%)	211 (69.9%)
No	85 (27.2%)	91 (30.1%)
Not in drinking situation	187	198

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 about 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%, which is only 1% to 2% greater than the pre-ASAP awareness. 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, 19% named the Fairfax project. However, by June of 1975 only 16.4% could recall the ASAP, and in December this figure had declined to 13.2%.

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 drunk drivers) and to pinpoint who "low awareness" respondents were, both in terms of their demographic characteristics and their media viewing habits. These awareness scores appear in Table 5. While the average awareness

score decreased between surveys, this change was not significant. 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, drinkers more than nondrinkers, and drivers more than nondrivers. 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.

TABLE 3

"HAVE YOU HEARD OF A PROGRAM THAT IS TRYING TO REDUCE ALCOHOL RELATED TRAFFIC DEATHS?"

<u>Response</u>	<u>Household Survey</u>		<u>Telephone Surveys</u>	
	<u>1971</u>	<u>1974</u>	<u>June 1975</u>	<u>December 1975</u>
Yes	236 (47%)	263 (53%)	240 (48.0%)	243 (48.6%)
No	262 (52%)	237 (47%)	258 (51.6%)	257 (51.4%)
Refused	—	—	2 (0.4%)	—

TABLE 4

"DO YOU RECALL WHAT AGENCY OR ORGANIZATION IS SPONSORING THE PROGRAM?"

<u>Response</u>	<u>Household Survey</u>		<u>Telephone Surveys</u>	
	<u>1971</u>	<u>1974</u>	<u>June 1975</u>	<u>December 1975</u>
ASAP	15 (3%)	78 (19%)	82 (16.4%)	66 (13.2%)
Other	77 (15%)	82 (16%)	55 (11.0%)	58 (11.6%)
Can't recall	109 (22%)	101 (20%)	100 (20.0%)	188 (23.6%)
Had not heard of a program	264 (53%)	238 (48%)	263 (52.6%)	258 (51.6%)
No response	35 (7%)	1 (0%)	—	—

TABLE 5

ALCOHOL AWARENESS SCORES

<u>Score</u>	<u>June 1975</u>	<u>December 1975</u>
0	1 (0.2%)	0 -
1	101 (20.2%)	118 (23.6%)
2	45 (9.0%)	37 (7.4%)
3	60 (12.0%)	66 (13.2%)
4	37 (7.4%)	43 (8.6%)
5	14 (2.8%)	15 (3.0%)
6-10	17 (3.4%)	15 (3.0%)
11-15	126 (25.2%)	108 (21.6%)
16-20	97 (19.4%)	98 (19.6%)
21 and over	2 (0.4%)	0
Average Score	8.27	7.80
T-Value	1.12, N. S.	

Knowledge of Drinking and Driving

While the few knowledge-type items included in the telephone survey proved inadequate to establish a respondent's level of knowledge of drinking and driving, items included in the roadside survey were sufficient indicators. Respondents were asked three specific questions concerning the drinking/driving laws in Virginia and how they pertained to their own personal drinking habits. 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 6, a majority of the respondents in all five roadside surveys could correctly define the term "blood alcohol concentration" (a respondent's answer was substantially judged correct if he could conceptually or technically define the term).

TABLE 6

DEFINITION OF BLOOD ALCOHOL CONCENTRATION
1971-1975

<u>Definition</u>	<u>Baseline Survey</u>	<u>Second Survey</u>	<u>Third Survey</u>	<u>Fourth Survey</u>	<u>Fifth Survey</u>
Substantially Correct	1,075(68.3%)	1,066(72.6%)	1,230(80.8%)	1,960(70.3%)	1,312(76.9%)
Wrong or don't know	499(31.7%)	402(27.4%)	293(19.2%)	830(29.7%)	394(23.1%)

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 survey, which represents a statistically significant recovery from the fourth survey and a higher level than during the baseline survey.

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 7). The percentage of correct responses peaked during the third survey and then dropped off during the fourth. However, whereas knowledge of the BAC definition increased between 1974 and 1975, knowledge of the presumptive limit decreased slightly.

TABLE 7

PRESUMPTIVE LEVEL FOR DRUNKEN DRIVING IN VIRGINIA
1971-1975

<u>BAC Level</u>	<u>Baseline Survey</u>	<u>Second Survey</u>	<u>Third Survey</u>	<u>Fourth Survey</u>	<u>Fifth Survey</u>
Any Trace	29 (1.8%)	23 (1.6%)	30 (2.0%)	34 (1.2%)	41 (2.4%)
.05%	182 (11.6%)	242 (16.4%)	212 (13.9%)	432 (15.4%)	358 (20.7%)
.08%	98 (6.2%)	159 (10.8%)	156 (10.2%)	206 (7.4%)	207 (12.0%)
.10%	161 (10.2%)	308 (20.8%)*	394 (25.9%)*	684 (24.4%)*	406 (23.5%)*
.12%	81 (5.1%)	102 (6.9%)	57 (3.7%)	85 (3.0%)	105 (6.1%)
.15%	299 (19.0%)*	106 (7.2%)	72 (4.7%)	120 (4.3%)	86 (5.0%)
.20%	48 (3.1%)	54 (3.6%)	40 (2.6%)	64 (2.3%)	52 (3.0%)
Don't Know	676 (43.0%)	484 (32.7%)	563 (37.0%)	1,175 (42.0%)	472 (27.3%)

*The presumptive level for drunken driving in Virginia was changed in 1972 from .15% to .10%.

Respondents were then asked how many drinks would be necessary for them to achieve a BAC over the presumptive limit (see Table 8). 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, 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 9, 24.7% 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. This discrepancy in perception should be addressed through public information efforts.

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. These scores appear in Table 10. As with awareness, younger drivers scored higher in knowledge than did older drivers, possibly as a result of recent driver education. There were also significant racial differences, which possibly reflected a disparity in education levels.

TABLE 8

CORRECT NUMBER OF DRINKS NEEDED TO ACHIEVE A BAC \geq .10% (BY WEIGHT)
BY THE CORRECTNESS OF THE RESPONDENTS ANSWER
1975

<u>Correct Number of Drinks by Weight</u>	<u>RESPONDENT'S ANSWER</u>			
	<u>Less Than The Correct Number</u>	<u>Correct Number</u>	<u>More Than The Correct Number</u>	<u>Don't Know</u>
4	297 (66.3%)	60 (13.4%)	49 (10.9%)	42 (9.4%)
5	531 (67.8%)	51 (6.5%)	114 (14.6%)	87 (11.1%)
6	268 (65.5%)	45 (11.0%)	42 (10.3%)	54 (13.2%)
7	51 (58.6%)	2 (2.3%)	8 (9.2%)	26 (29.9%)
Of The Total	66.4%	9.2%	12.3%	12.1%

TABLE 9

BAC BY SELF-REPORTED DRINKING CLASSIFICATION
1975

<u>BAC</u>	<u>Very Light Drinker</u>	<u>Fairly Light Drinker</u>	<u>Moderate Drinker</u>	<u>Fairly Heavy & Heavy Drinker</u>
.00 - .015%	86.6%	68.5%	52.7%	13.0%
.02 - .04%	6.9%	15.5%	15.0%	17.4%
.05 - .09%	3.8%	10.1%	17.0%	21.7%
.10 - .14%	1.5%	3.9%	10.2%	26.1%
.15 - .19%	0.7%	1.9%	4.1%	17.4%
.20% +	0.4%	1.0%	1.0%	4.3%

TABLE 10

RESPONDENTS' OVERALL KNOWLEDGE SCORES
1975

<u>Score</u>	<u>Number of Respondents</u>
2	17 (1.0%)
3	299 (17.3%)
4	875 (50.7%)
5	445 (25.8%)
6	87 (4.9%)
7	7 (0.4%)

In general, while knowledge of drinking and driving has increased over base-line levels, it was not as high in 1975 as during the third year of the project. 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. This lack should be addressed as a high priority item through the public information countermeasure.

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 about 90% to 92% of the respondents strongly agreed that it was a person's responsibility as a good citizen to stop a friend or relative from driving while drunk (see Table 11). However, a much smaller percentage were willing to take physical action to restrain the driver (see Table 12). The percentage of persons who strongly agreed with the use of physical action declined significantly between surveys.

After the samples' 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 13). Driving the person home was the most popular method, with between 68% and 74% of respondents being extremely likely to use this technique, while physical restraint was the least popular with only 17% to 18% being extremely likely. While there were declines between surveys in the popularity of almost all the methods, none of these decreases were significant.

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 14). Respondents were most likely to serve food with alcoholic beverages and least likely to close the bar at a certain time and replace alcoholic beverages with nonalcoholic beverages and food. There were significant declines in the probability of exhibiting these two behaviors between surveys, as there was with delegating driving responsibilities before the party to avoid drunk driving.

TABLE 11

"ITS A PERSON'S RESPONSIBILITY AS A GOOD CITIZEN TO STOP A FRIEND
OR RELATIVE FROM DRIVING WHILE DRUNK"

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
Strongly agree	287 (91.7%)	272 (90.1%)
Somewhat agree	20 (6.4%)	26 (8.6%)
Somewhat disagree	4 (1.3%)	1 (0.3%)
Strongly disagree	2 (0.6%)	3 (1.0%)
Had not been in drinking situation	187	198

TABLE 12

"WHEN FRIENDS ARE INVOLVED, A PERSON SHOULD BE WILLING TO TAKE
EVEN PHYSICAL ACTION TO STOP THE PERSON FROM DRIVING DRUNK"

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
Strongly agree	193 (62.3%)	155 (51.3%)
Somewhat agree	80 (25.8%)	113 (37.4%)
Somewhat disagree	18 (5.8%)	24 (7.9%)
Strongly disagree	19 (6.1%)	10 (3.3%)
Refused	3	—
Had not been in drinking situation	187	198

TABLE 13

METHODS OF DETAINING DRUNK DRIVERS IN 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 the person	5	N. S.

TABLE 14

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, decrease
Stop serving alcohol at a certain time	5	Yes, decrease
Ask who is driving home	4	N. S.
Not offer drinks to an intoxicated guest	3	N. S.
Delegate driving responsibilities before the party	2	Yes, decrease

As seen in Table 15, there were significant decreases in the percentages of respondents who would support greater police enforcement of drunk driving laws and more severe penalties for persons convicted of driving while intoxicated. There was also a decrease in support for public information campaigns, but this difference was not significant. Thus, support for two of the countermeasure activities used under the ASAP concept has declined, although a majority of respondents still support these efforts. The least support was given to more severe penalties, which had decreased to 68% by December.

TABLE 15

SUPPORT FOR COUNTERMEASURE ACTIVITIES

Would you support the following ?"

(1) Greater police enforcement of drunk driving laws

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
Yes	466 (93.2%)	453 (90.6%)
No	32 (6.4%)	47 (9.4%)
No answer	2 (0.4%)	—

(2) More severe penalties for drunk driving

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
Yes	381 (76.2%)	341 (68.2%)
No	94 (18.8%)	158 (31.6%)
Refusal	25 (5.0%)	1 (0.2%)

(3) Public information campaigns

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
Yes	458 (91.6%)	447 (89.4%)
No	41 (8.2%)	53 (10.6%)
Refusal	1 (0.2%)	—

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). There was a significant decrease in the positiveness of attitudes toward intervening in a drunk driving episode, based on this scale. Previous alcohol experience was found to be significantly related to alcohol related attitudes. At the lowest and highest levels of experience, attitudes tended to be more positive than at the middle experience levels, although the most positive attitudes occurred with the lowest amount of experience. A similar relationship existed between awareness and attitude, although there is 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.

TABLE 16
ALCOHOL ATTITUDE SCALE SCORES

<u>Score</u>	<u>June 1975</u>	<u>December 1975</u>
0-10	—	2 (0.7%)
11-15	1 (0.3%)	—
16-20	2 (0.6%)	1 (0.3%)
21-25	10 (3.2%)	20 (6.6%)
26-30	46 (14.8%)	62 (20.5%)
31-35	94 (30.2%)	89 (29.5%)
36-40	85 (27.3%)	79 (26.2%)
41-45	62 (19.9%)	38 (12.6%)
46-50	11 (3.5%)	11 (3.6%)
No score (had no prior drinking experience)	189	198
Average score	35.48	34.10
T-Value		2.77, p<.01

In general, then, there was a significant decline in positive attitudes toward coping with drunken drivers over the last six months of 1975. While the self-reported likelihood of using recommended techniques to avert drunk driving declined slightly, the most significant decreases in likelihood involved socially oriented party behaviors. While respondents were also significantly less likely to support increased police enforcement and more severe penalties for drunk driving in December than they were in June, they were also less likely to support public information campaigns, but not significantly so. Attitude levels were found to be related to both alcohol experience and alcohol awareness. The more aware of the alcohol problem respondents become, the more positive their attitudes should be. Again, this should be addressed in future public information campaigns.

Behavior in Relation to Drunken Drivers

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 non-intoxicated 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 17, 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 18 shows the initial actions that the respondent took to stop the driver. In that table it can be seen that the popularity of the various methods varied somewhat between surveys. However, the most popular method in both surveys was to drive the person home. This finding supports the validity of the answers given in response to the attitude questions involving the likelihood of using a particular method to avert a drunk driving incident.

TABLE 17

WHEN IN A SITUATION WHERE A FRIEND WAS ABOUT TO DRIVE AFTER DRINKING TOO MUCH, DID YOU STOP HIM?

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
Yes	96 (70.1%)	83 (70.9%)
No	41 (29.9%)	34 (29.1%)
Had not been in heavy drinking situation	363	383

TABLE 18

WHAT ACTIONS DID YOU TAKE TO STOP THE DRIVER?

<u>Response</u>	<u>June 1975</u>	<u>December 1975</u>
- Drove the person home	37 (40.2%)	38 (44.7%)
- Offered to drive	12 (13.0%)	8 (9.4%)
- Offered a room for the night	10 (10.9%)	10 (11.8%)
- Called a taxi for the person	2 (2.2%)	2 (2.4%)
- Took the person's keys away	10 (10.9%)	7 (8.2%)
- Restrained the person	7 (7.6%)	5 (5.9%)
- Got someone else to restrain the person	6 (6.5%)	7 (8.2%)
- Gave the person coffee	-	-
- Gave the person food	-	-
- Other	8 (8.7%)	8 (9.4%)
- Had not been in heavy drinking situation	408	415

In order to determine whether a person's assessment of his probability of using a particular method is related to the methods he actually used, likelihood responses were arrayed for persons who actually used the technique (see Table 19).

TABLE 19

NUMBER OF PERSONS IN EACH LIKELIHOOD CATEGORY ACTUALLY USING EACH TECHNIQUE

<u>Method</u>	<u>Likelihood</u>			
	<u>Extremely</u>	<u>Very</u>	<u>Somewhat</u>	<u>Not At All</u>
Drove the person home	59 (78.7%)	12 (16.0%)	2 (2.7%)	2 (2.7%)
Offered the person a room	12 (60.0%)	7 (35.0%)	1 (5.0%)	0 (-)
Called a taxi	3 (75.0%)	1 (25.0%)	0 (-)	0 (-)
Took the person's keys	9 (52.9%)	6 (35.3%)	2 (11.8%)	0 (-)
Restrained the person	3 (25.0%)	1 *8.3%	4 (33.3%)	4 (33.3%)

In all cases (except for the method requiring physical restraint), those persons who said they were "extremely likely" to use the method actually were the "most likely" to use it, followed by persons who were "very likely", "somewhat likely", and finally those who were "not at all likely". In the case of restraining the person, more persons in the "somewhat" or "not at all likely" categories used the behavior than did those who said they were "extremely" or "very likely" to use it. (It is possible that negative repercussions from using this technique have persuaded the respondent that he or she would not be willing to use it in the future.) However, while there is a relationship between self-reported likelihood and behavior, this relationship is not of a predictive nature. Of all the persons saying that they were extremely likely to drive a drunken friend home, 46% had actually done so while 54% used some other technique.

Finally, to relate overall behavior to other factors, a composite behavior scale was constructed as shown in Appendix C. The scores on this scale for both surveys appear in Table 20. There was no significant difference in overall behavior between surveys. 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 counter-measure could positively affect both attitudes and behaviors.

TABLE 20
BEHAVIOR SCALE SCORES

<u>Behavior Score</u>	<u>June 1975</u>	<u>December 1975</u>
1	62 (24.1%)	71 (30.6%)
2	85 (33.1%)	69 (29.7%)
3	31 (12.1%)	20 (8.6%)
4	34 (13.2%)	29 (12.5%)
5	41 (16.0%)	34 (14.7%)
6	4 (1.6%)	9 (3.9%)
Not enough alcohol experience to construst score	243	268
Average *	2.68	2.62
T-Value	0.44, N. S.	

* T-tests were performed both with and without zero items and were not significant in either case.

APPENDIX A

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.

Column Number

Site ID

Questionnaire No.

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 42

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

(READ LIST UNTIL YOU GET AN ANSWER)

- Daily 1
- 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 42

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, DO YOU SOMEWHAT AGREE, DO YOU SOMEWHAT DISAGREE, DO YOU STRONGLY DISAGREE.

- | | Strongly
Agree | Somewhat
Agree | Somewhat
Disagree | Strongly
Disagree |
|---|-------------------|-------------------|----------------------|----------------------|
| 6. A can of beer is less intoxicating than an average drink of liquor | 1 | 2 | 3 | 4 |

INTERVIEWER: MAKE SURE YOU HAVE ASKED ALL PHRASES

READ ALL QUESTIONS

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
7. Drinking black coffee helps sober a person	1	2	3	4
8. It's a person's responsibility as a good citizen to stop a friend or relative from driving when drunk	1	2	3	4
9. When friends are involved, a person should be willing to take even physical action to prevent them from driving drunk	1	2	3	4
10. An average glass of wine is less intoxicating than an average drink of liquor	1	2	3	4
11. When a person has been drinking, you can tell more about his ability to drive by the way he walks and speaks rather than by the amount of alcohol he has consumed	1	2	3	4
12. In the past month, have you discussed with anyone the topic of drunk driving?				
Yes	1			
No	2			
13. 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			
No	2	SKIP TO QUESTION 18		

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

Number

Past three months _____

15. 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 18

16 and 17. Please tell me what actions you took?

DO NOT READ LIST -- CHECK OFF ANSWERS

- Drove the person home 1
- Offered to drive him/her home 2
- Offered to let him/her stay over 3
- Called a taxi 4 (431)
- 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 (4e2)
- Gave him food 10
- Called the police 11
- Other _____ 12
(Please Specify)

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

18. Suggest to the person that you drive him home? 1 2 3 4

	Extremely	Very	Somewhat	Not At All
19. Suggest to the person that he stay overnight at your home?..	1	2	3	4
20. Call a taxi for the person who drank too much	1	2	3	4
21. Take the person's keys away ..	1	2	3	4
22. 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
23. Plan to serve food with the drinks to reduce the effects of alcohol	1	2	3	4
24. Plan a party where drinking is cut off at a certain time and replaced with non-alcoholic beverages and food	1	2	3	4
25. Ask who is driving home ...	1	2	3	4
26. Not offer drinks to a guest who is becoming intoxicated	1	2	3	4
27. 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
28. Do you recall having seen or heard any drinking and driving advertising in the past few months?				
Yes	1			
No.	2	SKIP TO QUESTION 42		

29 and 30 Where did you see or hear it?

READ LIST — MAY HAVE MORE THAN ONE ANSWER

- Radio 1
- Magazine 2 (8b1)
- Newspaper 3 (8b2)
- TV 4
- Radio and TV 5
- Other _____ 6
(Specify)

READ: What was the message about?

31, 32 & 33

DON'T READ LIST — CHECK OFF RESPONSES GIVEN

- People should know how much they can drink 1 (8c1)
- Many fatal crashes are caused by drunk drivers 2
- People who give parties should see that their friends don't drive home drunk 3 (8c2)
- If you are really a person's friend you'll stop him from driving drunk, no matter how reluctant you are 4 (8c3)
- More police are patrolling the street at night to watch for and arrest drunk drivers 5
- Other 6

34. As a result of seeing this advertisement are you likely to take some kind of action in a drinking situation that you may not have taken before?

- Yes 1
- No 2

READ: Though you may have mentioned it before, do you remember seeing an ad where:

- | | 1 | 2 |
|---|------------|-----------|
| | <u>YES</u> | <u>NO</u> |
| 35. A husband and wife rush off to the hospital to see a friend who has been in an accident | 1 | 2 |
| 36. A woman is talking about her friend who always drank too much after painting class | 1 | 2 |
| 37. A group of men in a car coming home from a card game | 1 | 2 |

1 2
YES NO

- 38. A woman in bed who is worried about her brother's drinking and the phone rings 1 2
- 39. A man telling how he saved his friend's life by having him stay over instead of driving drunk 1 2
- 40. Bartender describes sending a drunk customer home in a taxi 1 2
- 41. A woman tells how she drove an intoxicated guest home 1 2

READ: Just a few more questions for classification purposes.

- 42. 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
- Refused 6

- 43. Are you:

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

- 44. Do you drive?

- Yes 1
- No 2

- 45. On an average day during what hours do you watch Television?

DO NOT READ LIST! CHECK OFF RESPONSES GIVEN

- 8 a. m. to 5 p. m. 1
- 5 p. m. to 8 p. m. 2 (11a)
- 8 p. m. to 11 p. m. 3
- 11 p. m. or later 4 (11b)
- Doesn't watch TV 5

DO NOT READ LIST! CHECK OFF RESPONSES GIVEN

46. On an average day, during what hours do you listen to the radio?

- | | | |
|-------------------------------|-------|-------|
| 6 a.m. to 9. a.m. | 1 | |
| 9 a.m. to 5 p.m. | 2 | (12a) |
| 5 p.m. to 7 p.m. | 3 | (12b) |
| 7 p.m. to midnight | 4 | |
| Midnight to 6 a.m. | 5 | |
| Doesn't listen to radio | Blank | |

47. 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 |
| Don't know | 4 |

Would you support the following actions?

- | | | |
|---|-----|---|
| 48. Greater police enforcement of drunk driving law | Yes | 1 |
| | No | 2 |
| 49. Public Information Campaign about drunk driving | Yes | 1 |
| | No | 2 |
| 50. More severe penalties for drunk drivers | Yes | 1 |
| | No | 2 |

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

- Yes
No SKIP TO END

52. 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 _____

APPENDIX B
VOLUNTARY ROADSIDE SURVEY

1. Interviewer Observation: Number of people 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 OR 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 SURVEY COUNTY
2 OTHER

2c. And what state? State: 1 SURVEY STATE
2 OTHER

3. How long have you lived in _____ county?
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
6 SIX DAYS
5 FIVE DAYS
4 FOUR DAYS
3 THREE DAYS
2 TWO DAYS
1 ONE DAY
0 NONE IN A TYPICAL WEEK

6. 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, or vodka?
1 YES
2 NO → SKIP TO Q. 10

7. Which of these do you drink most often — beer, wine, or liquor?
1 BEER
2 WINE
3 LIQUOR

8. 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

9. (deleted)

10. What do you think the term Blood Alcohol Concentration or Blood Alcohol Level means?
1 RESPONDENT'S ANSWER TECHNICALLY CORRECT
2 RESPONDENT'S ANSWER SUBSTANTIALLY CORRECT
3 RESPONDENT'S ANSWER WRONG

HAND RESPONDENT CARD "A"

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 have to reach the level where you would be considered legally drunk?
- | | | | |
|---|-------------|---|-------------|
| 1 | ONE OR LESS | 7 | SEVEN |
| 2 | TWO | 8 | EIGHT |
| 3 | THREE | 9 | NINE |
| 4 | FOUR | 0 | TEN OR MORE |
| 5 | FIVE | X | DON'T KNOW |
| 6 | SIX | | |
13. Now, I'd like you to blow into this tube. This is part of the procedure for gathering data for this survey.

RECORD RESULTS

14. Have you drunk any beer, wine, or liquor in the last two hours?
- | | |
|---|-----|
| 1 | YES |
| 2 | NO |

(IF "YES" ON Q. 14, ASK):

15. 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 1½ ounces of liquor each as one drink?
- | |
|--------|
| NUMBER |
| X NONE |

16. On how many days did you have something to drink in the past week? # _____
17. What was the most you had on any one day? # _____

HAND RESPONDENT CARD "B"

18. Which of these comes closest to your weight? Just give the letter. (INTERVIEWER: ESTIMATE IF NECESSARY)
- | | | | |
|---|--------------------|---|------------------|
| 1 | LESS THAN 100 LBS. | 6 | 180-199 LBS. |
| 2 | 100 - 119 LBS. | 7 | 200 - 219 LBS. |
| 3 | 120 - 139 LBS. | 8 | 220 - 239 LBS. |
| 4 | 140 - 159 LBS. | 9 | 240 LBS. OR MORE |
| 5 | 160 - 179 LBS. | | |
19. 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 |
20. Sex (OBSERVE AND RECORD)
- | | |
|---|--------|
| 1 | MALE |
| 2 | FEMALE |
21. Race (OBSERVE AND RECORD)
- | | | | |
|---|----------|---|-----------------|
| 1 | WHITE | 4 | LATIN |
| 2 | BLACK | 5 | AMERICAN INDIAN |
| 3 | ORIENTAL | 6 | OTHER (Specify) |
22. LOCATION NO.: _____
23. TIME OF DAY: _____
24. DATE _____
25. INTERVIEWER'S SIGNATURE: _____

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) and how often he had been in a situation where someone had been drinking too heavily and was about to drive (Questions 13 and 14). The items are coded as follows:

Questions 4 and 13: 2=yes, 1=no
 Question 5 : 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 14 : Numerical Answer

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 12), (2) whether the respondent has seen or heard any drunk driving advertising (question 28), and can recall the ads themselves (questions 35-41) or the messages they convey (questions 31-33), and (3) whether the respondent has heard of the ASAP program (questions 51 and 52). The respondent is awarded 'points' as follows:

Questions 12, 28 and 51: 2=yes, 1=no
 Questions 31-33 : 1-remembered message, 0-couldn't recall
 Questions 35-41 : 2-recalled seeing ad, 1-couldn't recall
 Question 52 : 3-ASAP, 2-other, 1-couldn't recall

C. Alcohol Behavior Scale — The behavior scale is based upon four items from the questionnaire which ask the respondent to report on his past behavior in relation to bystander intervention in drunk driving situations (questions 15, 16, and 17), and to assess his future behavior in the same regard (question 34). The items are coded as follows:

Questions 15 and 34: 2=yes, 1=no
 Questions 1 and 17 : 1-used technique, 0-did not use

D. Alcohol Attitude Scale (coping with drunk driving) — 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 8), even if it requires physical action to do so (question 9), (2) how likely he is to use certain techniques to stop someone from drinking and driving (questions 18-22), and (3) how likely he is to exhibit certain behaviors as a host in order to stop a guest from driving drunk (questions 23-27). The items are coded as follows:

Questions 8-9 : 4-strongly agree, 3-somewhat agree, 2-somewhat disagree
1-strongly disagree

Questions 18-27 : 4-extremely likely, 3-very likely, 2-somewhat likely,
1-not at all likely

F. Alcohol Knowledge Scale — This scale used items 6, 7, 10 and 11. It was determined that these were not suitable knowledge items and the scale was discarded.