

IDENTIFICATION OF DWI BEHAVIOR PATTERNS
AND METHODS FOR CHANGE

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FINAL REPORT

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16. Abstract The purpose of this study was to identify patterns of behavior leading to driving while intoxicated (DWI), and to propose countermeasures for altering these patterns before they result in DWI. Two samples were studied: Los Angeles high school students representing the population of principal interest in this report, 16 to 18 year olds, and convicted DWIs, a comparison group. The study began with a literature review to find other research that dealt with DWI behavior patterns. The behavioral and situational variables, identified in the literature as being associated with DWI, were discussed with 12 focus group meetings of high school students and 11 meetings of convicted DWIs. The final report presents the predominant behavior patterns that emerged from the focus group discussions in both samples. The convergent views of both groups underlie the recommendation for DWI countermeasures given in this report. Both groups strongly urged countermeasures that would emphasize the teaching of planning methods, enabling individuals to avoid driving after drinking.					
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Ray Berger
Principal Investigator

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INTRODUCTION

An integral part of the National Highway Traffic Safety Administration's (NHTSA) Alcohol and Drug Research Program is the search for countermeasures to specific, alcohol-related highway safety problems. As part of this effort the present study identified patterns of behavior leading to driving while intoxicated (DWI), and surveyed possible countermeasures for altering these patterns before they culminate in DWI. The primary focus was on young drivers in the 16 to 18 year old range. The behavioral patterns of convicted DWIs were also investigated to provide a basis of comparison and possible continuity.

Alcohol has been heavily implicated in automobile fatalities. Many of the countermeasures proposed and tried have been aimed at reducing alcohol involvement by drinkers or by restricting the driving privileges of those who repeatedly drive while under the influence. This study differs from that approach by searching for countermeasures that are interventions in the behavioral sequence involving drinking and driving; the interest is not in preventing people from either drinking or driving but in preventing intoxicated persons from driving. Consequently, behavior patterns that precede DWI were examined to reveal situational elements conducive to effective intervention.

The information for this study was collected from two sources: a literature review of previous research on patterns of DWI behavior, and group discussions based on questions referring to behavioral elements identified in the literature review. A moderator's guide was used to direct focus group discussions at twelve meetings of high school students and eleven meetings of convicted DWI's. The information collected at the focus group meetings was coded by critical elements so that comments could be grouped and analyzed for content.

The first section of this report, "Background," states the purpose of the study and reviews the literature for relevant research. The next section,

"Methodology," presents the procedures for selecting the sample and for collecting information, and describes the focus groups selected. The "Results of Analysis" section presents the results and the methods used for processing and evaluating the information collected in focus group meetings. The last section offers the conclusions concerning drinking driver behavior patterns and the recommendations for effective countermeasures to reduce the current rate of alcohol-related accidents and fatalities, especially for drivers of high school age.

BACKGROUND

The first goal of this study was to identify the predominant behavior patterns of young drivers (16 to 18 years old) that are associated with drinking and driving. The second goal was to discover effective countermeasures for altering behavior patterns before they result in driving while intoxicated (DWI). Previous research in the areas of DWI behaviors and DWI countermeasures was reviewed to identify the elements that characterize DWI behavior patterns and to delimit the issues for focus group discussions. The plan was to expand on the findings in the literature by posing specific questions to the focus groups, and to obtain reactions to DWI countermeasures proposed in the literature and by the discussants themselves.

The information collected during the literature search was categorized into two groups: studies about behavior patterns preceding DWI, and studies concerning DWI countermeasures. Specific issues reviewed below include youthful drinking statistics, situational variables associated with DWI, motivations associated with DWI, misconceptions about the DWI problem, and previously attempted countermeasures and their outcomes.

DWI Behavior Patterns

Youthful Drinking

The problem of youthful drinking and driving is well documented and provides ample justification for this study. For example, between 1967 and 1976 the frequency of drinking by elementary grade students in San Mateo County, California increased ninefold and was referred to as epidemic by The National Council on Alcoholism (Blackford 1976); other studies indicated that teenage drinking increased during the seventies (Harford 1976; Marden & Koodner 1976). Some researchers have shown that as many as 46 to 82% of all high school students use alcohol (Battistich & Huffman 1978; Brown & Gunn 1977; Montana and O'Neill 1978; Mayer & Folstead 1980). A higher proportion of this group than what one would expect by chance was

reportedly involved in drinking driver fatalities (Forslund 1979; Naor & Nashold 1975). Persons 20 to 24 years of age accounted for more than 22% of all fatalities involving drinking drivers and almost 24% of the injuries in 1977 (Traffic Accident Facts 1978). A study of fatally injured drivers in Nassau County showed that 35% of those with high blood alcohol content (BAC) were under 24 years of age (Ptovin & Lee 1980). Accident data from four states and a survey of young Michigan men revealed that by age 20 over half the group sampled drank at least once weekly and drove after drinking at least once monthly (Pelz & McDole 1975). High BAC's were also common among young drivers in a study of fatal motorcycle crashes in Maryland (Baker & Fisher 1977).

Situational Variables

A number of studies investigated situation-related drinking behaviors, particularizing "when", "where", "what" and "with whom" drinking occurs.

Time and place. Previous research indicated that high BACs tend to be found most frequently in late night drivers, and more during weekends than on weekdays (Cahalan et al. 1969; Dunlap 1975; Lehman 1975; Mulford 1964; Wolfe & Chapman 1973). In addition, more alcohol-related violations and crashes are reported during these periods (Dunlap 1975; Harrington 1971). Within the youthful group of drinking drivers, alcohol consumption is reported to occur most often in a friend's home (Grey Marketing 1974; Wolfe & Chapman 1973) or one's own home (MacKay et al. 1967; Cahalan et al. 1969; Carlson 1972); 64% of an older DWI group said they usually drank at home (LaBlanc & Brennan 1973). Evidence also suggested that, at least among teenagers, drinking commonly occurred during unsupervised parties (Maddox & McCall 1964; Mulford 1964; Fallding & Miles 1974).

Beverages consumed. Previous studies indicated that beer is the alcoholic beverage most frequently consumed by young drinkers, although females' preferences were often evenly divided among beer, wine and hard liquor (Cahalan et al. 1969; Grey Marketing 1974; Perrine et al. 1971; Fallding & Miles 1974; Kane & Patterson 1972; Yoder & Moore 1973; Jessor et al. 1970;

Greenblatt & Schuckit 1976; Kandel et al. 1976; Montana & O'Neill 1978; Suffet & Brotman 1976; Rachal et al. 1975; Mayer & Folstead 1980; Blane et al. 1979). Drinking and driving was also associated with other drug use (Wechsler & Thum 1973; Parfey 1974; Dunlap 1975; Joscelyn & Maickel 1977; Walker et al. 1974; Whitehead & Ferrence 1976).

Drinking companions. The literature showed that young people tend to drink more often with friends of both sexes and less when alone or with relatives. However, as one gets older drinking with relatives becomes more common (Grey Marketing 1974; Kane & Patterson 1972; Maddox & McCall 1964; Wolfe & Chapman 1973; Griffin 1976; Rachal et al. 1976). Related research showed that high alcohol consumption rates are associated with the size of peer groups or a drinker's perception of peer-group support (Alexander & Campbell 1967; Jessor & Jessor 1973; Wechsler & Thum 1973; Rosenbluth et al. 1978). Individuals under legal age for purchasing alcoholic beverages usually obtain alcohol from legal-aged friends and less frequently from parents or relatives (Wechsler & Thum 1973; Parfey 1974; Dunlap 1975; Joscelyn & Maichel 1977; and others).

Male/Female distinctions. While some studies indicated that drinking, and driving after drinking, is more frequent among males (Montana & O'Neill 1978; Lundberg et al. 1979; Traffic Accident Facts 1978; Wolfe 1971; Forslund & Gustafson 1970; Harrington 1971; Carlson 1972; Cosper & Mozersky 1968; Kane & Patterson 1972; Knupfer & Room 1964; Parfey 1974), more recent studies revealed that, at least for some groups, there no longer exists a significant difference between sexes in alcohol use (Greenblatt & Schuckit 1976; Hanson 1977; Ptovin & Lee 1980). For example, at the end of a ten year study of high school students in Massachusetts, consumption of all alcoholic beverages increased among females to the point where there was no significant difference between their drinking patterns and those of males (Wechsler & McFadden 1976). Some have argued that this increased consumption rate among females was related to rejection by women of traditional feminine ideals (Wilsnack & Wilsnack 1978).

Motivations for Drinking

Peer influence. Researchers have offered many reasons for youthful drinking. It is widely believed and documented that peer pressure is a strong determinant in the drinking behavior of adolescents (Forslund & Gustafson 1970; MacKay et al. 1967; Pelz & Schuman 1971; Babst et al. 1978; Battistich & Huffman 1978; Blechman et al. 1977; Chafletz & Blane 1979). Laboratory studies support the finding that students will drink more when paired with drinking confederates than when paired with non-drinking confederates (Cooper et al. 1979). Not only is peer influence significant, but it is also growing. Surveys taken first in 1970-71 and then in 1975 at seventeen colleges and universities showed that parental influence decreased and peer influence increased by the time of the second survey (Hanson 1977).

Escape or stimulation. The use of alcohol for escaping boredom or alleviating stress is frequently given as a prime reason for drinking among high school age individuals (Barnes & Olson 1977; Chafletz & Blane 1979; Chambers and Griffey 1975; Durning & Jansen 1975; Fallding & Miles 1974; Knupfer & Room 1964). Other studies indicated that reasons for drinking are mostly convivial or to achieve pleasurable mental states (Barnes & Olson 1977; Donovan & Jessor 1978; Jung 1977; Lazar & Lazar 1976). The social context preceding DWI was isolated by Cospers & Mozersky (1968), who found that drinking and driving after drinking were often preceded by high school social and sporting events.

Misconceptions. Studies aimed at discovering specific reasons for DWI among youths revealed that this group often lacks awareness of the greater risk involved with driving after drinking. Most individuals underestimated the number of drinks required to reach the legal BAC limit (Borkenstein et al. 1971; Wolfe 1971; Dunlap & Associates 1975; Grey Marketing 1974); many are unfamiliar with DWI laws (Wolfe & Chapman 1973; Borkenstein et al. 1971); and teens are least likely to recognize the relation between drinking and the incidence of fatal accidents (Little 1970; Wolfe 1971). Furthermore, studies have shown that many people, particularly teens,

believe that coffee can sober a drunk person, or that cold showers and long walks have sobering effects (Dunlap & Associates 1975; Grey Marketing 1974; Wolfe & Chapman 1973). Other studies indicated that much of this misinformation and the youthful attitudes about drinking and driving are learned from parents and older friends (Forslund & Gustafson 1970; Grey Marketing 1974; Fallding & Miles 1974; Kane & Patterson 1972; Mackay et al. 1967; Nusbaumer et al. 1981; Maddox 1970; Zylman 1972; Parfey 1974).

This literature review suggests that at least two questions need more study: how do teens interact socially with others before DWI, and how are teens' attitudes about DWI risk formed? These questions are treated in the section on focus group discussions.

DWI Countermeasures

A variety of DWI countermeasures are described and evaluated in the literature (Grey Marketing 1971; Little 1970; Wolfe 1971; Vayda & Crespi 1981; Joscelyn & Maickel 1977). Much of the discussion centered around education and counseling programs for convicted DWIs, but other approaches were mentioned, for example, legal and enforcement measures, public information programs, and mechanical or electronic devices to prevent an intoxicated person from driving.

Educational and Counseling Programs

DWI rehabilitation programs, particularly those integrated into Alcohol Safety Action Project (ASAP), have received a great deal of study and criticism (Zador 1976; Whitehead 1975; Clay & Swenson 1978; Tigger 1978; Hubbard 1978). A general conclusion derived from these studies was that there is no evidence to show a decline in DWI offenses in those communities implementing ASAP programs, although ASAP may have a positive impact on court systems (Scrimgeour 1978). Some, attempting to understand the failure of these programs to decrease DWI recidivism rates, have found that convicted DWI's do not form a homogeneous group (Landrum & Windham 1981), and several researchers have recommended diagnostic screening of convicted

DWIs before prescribing a particular DWI program (Hubbard 1978). For example, Kern et al. (1977) report that those dropping out of DWI programs are more likely to have had higher BAC's at their time of arrest and are more often non-Whites. They recommend increasing fines for offenders not participating in a DWI program and suspending an offender's license after dropping out of a DWI program. Similar studies have shown that as many as 68% of all men arrested for DWI are alcoholics and probably should receive treatment other than just DWI education (Selzer & Barton 1977; Yoder & Moore 1973; McGuire 1980). Other research indicates that different age groups of DWI offenders may require different kinds of programs (Meck & Baither 1980; Schuman et al. 1967). As an example it was noted that drivers under 21 tended to use a car as an emotional outlet much more than older drivers do. Some DWI programs have attempted to maintain high rates of class attendance and personal involvement by requiring deposits (Eddy 1976), and promoting egalitarian rather than authoritarian atmospheres (Clayton & Dunbar 1977). There is little evidence, however, to show that these measures actually increase a program's effectiveness.

Legal and Enforcement Measures

Another approach, also an integral part of the ASAP package but receiving mixed support in the DWI countermeasures literature, involved using the legal and enforcement systems, especially to impose stiffer DWI penalties. During the last decade, some studies examining the effects of lowering the legal drinking age on the rate of alcohol-related traffic accidents and fatalities have provided support for those states desiring to raise or reinstate their former drinking laws (Whitehead & Ferrence 1976; Brown and Maghsoodloo 1981; Hammond 1973; Wechsler 1980; Zylman 1974). Other researchers have argued that raising legal drinking ages only makes the DWI problem worse by creating a "forbidden fruit" situation (Rooney & Schwartz 1977). Some researchers point to the fact that, while persons under twenty-five years of age are over-represented among culpables, i.e. those involved in fatal accidents, they are under-represented among convicted DWI's (Glauz et al. 1976). Because of this evidence they advocated stricter enforcement of existing laws, rather than passing stricter laws,

to increase the young individual's subjective probability of being apprehended when DWI (Clay & Swenson 1978; Hall 1977; Damkot et al. 1977; Beltel 1975; Hause et al. 1977). Others have argued that stricter license suspension and revocation programs should be legally instituted to curtail DWI activity (Hubbard 1978; Hagen 1977; 1978; Hagen et al. 1979). However, other studies showed stiffer DWI penalties resulted in only a small change in the percentage of alcohol-related accidents (Ennis 1977).

Public Information Programs

Public information approaches using the mass media have attempted to educate the public about the risks of drunk driving, but these programs had disappointing results (NHTSA 1975; Swinehart et al. 1974). Other programs combining highly visible "random" spot checks with drinking-driving education produced an increase in public knowledge about DWI issues but changes in driver behavior were inconclusive (Vingilis & Salutin 1980). Some studies described several ways to enhance the effectiveness of public education programs, including the use of drinking drivers who had had an accident while DWI (Booth & Grosswiler 1978); the use of peer groups rather than individuals as the targets for safety campaigns (Clark & Prolisko 1979); and by instituting educational measures aimed at disrupting the processes which actually teach youth to become drinking drivers; e.g., the willing practice of riding with older drivers who DWI (Nusbaumer & Zusman 1981).

Devices

Electromechanical devices offered another set of DWI countermeasures receiving research support. Two different kinds of findings influenced consideration of these countermeasures: first, friends family and co-workers in a position to discourage intoxicated persons from driving usually do not (Yoder & Moore 1973; Yoder 1975); second, alcohol increases the risk of an accident primarily by its effect on a driver's perceptual and psychomotor capacities, rather than by its effect on a driver's willingness to accept DWI risk (Allen et al. 1978). To deal with the diminished capacities of the drinking driver, several mechanical several

mechanical devices were developed and used as countermeasures. These included electromechanical alarms or interlocks which warn others of drunk drivers, or which actually prevent intoxicated persons from starting their vehicles (Cameron 1979). However, the legality and cost effectiveness of installing mechanical devices on privately owned vehicles are unresolved issues at this time (Vayda & Crespi 1981).

This review of the DWI countermeasure literature indicates that even though different approaches have been tested and evaluated, none has proved significantly effective in changing driver attitudes or reducing the incidence of DWI offenses. In this study, the opinions and ideas expressed by the focus group participants concerning countermeasures to the DWI sequence are presented in a later section.

METHODOLOGY

Sample Selection and Description

Focus group discussion was the qualitative research technique used for exploring observations, beliefs, and attitudes about DWI elements and issues. Information was collected during focus group meetings conducted in Los Angeles County high school classes and in convicted DWI "rap-groups". Three considerations led to the study of high school students and convicted DWIs in preference to a random sample of the population:

1. Working through established organizations would give the project greater credibility and arouse less suspicion than would working directly with random samples of teenagers and convicted DWIs.
2. Established organizations presented a convenient way to arrange focus group meetings.
3. Both groups would be more likely to attend focus group meetings.

High School Student Focus Groups

The principal consideration in selecting the high school sample was that it be sufficiently homogeneous for patterns to be identified. The project staff reviewed a directory of all school districts in Los Angeles County and compiled a list of twenty districts that were similar to each other. All twenty districts enrolled middle to upper class students, predominantly White but not exclusively so. Thirteen high school districts were randomly selected from this list of twenty and an administrator from each district was contacted by phone to inform them of the project and to request their administration. Letters outlining the study, accompanied by the research participation application forms required by the school districts, were sent to the administrators. Follow-up phone calls were then made to all who received the letter. The phone calls included offers to present the proposal in person to review committees. Four of the original thirteen high school districts agreed to participate in the study: Bellflower, Culver City, and Norwalk-La Mirada Unified School Districts and the South Bay

Table 1. A BREAKDOWN OF HIGH SCHOOL STUDENT FOCUS GROUPS BY
HIGH SCHOOL, SEX, ETHNIC GROUP AND GRADE LEVEL

<u>Group</u>	<u>Size</u>	<u>Sex</u>		<u>Ethnic Group</u>				<u>Grade Level</u>
		<u>Females</u>	<u>Males</u>	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Asian</u>	
Bellflower HS								
1	31	17	14	26	2	2	1	11, 12
2	49	30	19	30	2	9	8	11, 12
3	23	11	12	18	0	3	2	11, 12
Culver City HS								
4	29	14	15	19	2	3	5	12
5	29	16	13	19	2	2	6	12
6	28	13	15	15	2	3	8	12
La Mirada HS								
7	30	19	11	23	0	7	0	12
8	26	18	8	17	1	8	0	12
9	31	10	21	10	0	18	3	12
Redondo Union HS								
10	26	16	10	24	1	1	0	12
11	31	15	16	30	0	0	1	12
12	21	14	7	16	0	1	4	12
TOTALS	354	193	161	247	12	57	38	

Union High School District. Administrators from each participating district gave the project staff permission to enter one high school in their district to conduct focus group discussions. Three classes of juniors or seniors participated in each school, usually in state-required courses such as civics or social studies. These courses were requested by the project staff to assure a uniform sample. The focus groups were conducted during normally scheduled class periods.

After scheduling the focus group discussions, each principal introduced the project staff to participating instructors. They then reviewed the moderator's guide developed for the purpose of conducting student discussions.

A total of three hundred fifty-four students was included in the twelve focus groups, three groups from each of the four participating high schools. Table 1 gives a breakdown of the groups by high school, sex, ethnic group, and grade level. The table shows that most of the high school students sampled were in the twelfth grade, 54.5% of them were females and 69.8% were White with some representation in each of the other ethnic groups, particularly Hispanics.

Convicted Drinking Drivers

A list of special schools for drivers convicted of DWI was obtained from the Santa Monica office of the California Department of Motor Vehicles. Contact was made with Dennis Giroux, Director of Alternative Action Programs (AAP) in Los Angeles, who agreed to hold focus group meetings in his classes for convicted DWI's. At his suggestion the project staff moderators attended class sessions to familiarize themselves with the DWI problem and the attitudes of convicted DWIs. About 20 people, primarily first time offenders ("Level Ones"), comprised this class. The sessions were conducted in a classroom manner with time provided for discussion.

After observing these class sessions the project staff met with Giroux to review the moderators' guide, and to schedule the convicted DWI focus group

Table 2. A BREAKDOWN OF CONVICTED DWI FOCUS GROUPS BY
SEX AND ETHNIC GROUP

<u>Group</u>	<u>Size</u>	<u>Sex</u>		<u>Ethnic Group</u>			
		<u>Female</u>	<u>Male</u>	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Asian</u>
1	9	0	9	5	0	4	0
2	1	0	1	7	2	2	0
3	4	1	3	2	2	0	0
4	9	2	7	3	3	1	2
5	1	2	9	9	1	1	0
6	5	1	4	2	1	2	0
7	9	0	9	7	1	1	0
8	4	1	3	8	2	4	0
9	0	0	0	8	1	0	1
10	1	3	8	1	0	0	0
11	3	2	1	6	1	5	1
TOTALS:	126	12	114	88	14	20	4

meetings. Eleven rap groups with an average size of ten persons formed the focus groups, assuring the goal of at least one hundred in the sample. Giroux informed the regular AAP rap-group leaders that Psychometrics, Inc. moderators would lead discussions during eleven scheduled sessions. Group composition varied because program participation was semi-voluntary and most participants were court-referred. Repeated offenders ("Level Twos") were in the majority. A total of 126 convicted DWIs participated. A breakdown of the composition of these groups by sex and ethnicity is given in Table 2.

The most notable feature of the convicted DWI group composition was the small number of women (9.5%), a typical characteristic of the DWI classes. The table shows that the majority of the sample was White (69.8%) with some representation from other ethnic groups. Project staff observed that the sample cut across blue- and white-collar working classes, and that the participants' ages ranged from about 20 to 50 years of age.

Focus Group Meetings

This section describes the moderator's guide, the focus group discussion procedures, and the information collecting and recording methods.

Discussion Topics

Using the moderator's guide in the DOT Public Acceptability of Highway Safety Countermeasures (Vayda & Crespi 1981) as a model, a guide for this study was prepared for asking the focus groups questions related to DWI behaviors and situations identified in the literature review. The guide was designed to establish a core of information to be elicited by all moderators within a time constraint of approximately one hour.

The moderators' guide was divided into two major parts (see Appendix A): one part devoted to questions about factors leading up to driving while under the influence of alcohol, and the other to questions about the drivers' attitudes toward various DWI countermeasures. The first set of questions was designed to get information about behavior patterns preceding

DWI; for example, where and when DWI most often occurs, who are the drinking companions, and what alcoholic beverage is most frequently consumed. The second set of questions gave discussants an opportunity to evaluate several countermeasures already proposed, for example restricted driving hours and electromechanical devices. The group was also encouraged to offer their own ideas on DWI countermeasures, and to suggest how they might intervene to prevent an intoxicated companion from driving.

Discussion Procedures

Teams, each consisting of a moderator and a recorder, were formed to gather information during focus group meetings. The recorder used forms organized by questions in the moderators' guide (Appendix B). Each recorder's form also provided spaces for the time, place, names of moderator and recorder, and focus group composition by sex and ethnic group. The moderators conducted focus group discussions to cover all questions in the moderators' guide, and to explore other issues raised by discussants. The recorder took notes about the groups opinions and attitudes. A tape recorder was used as backup.

Prior to any focus group meetings in the field, the Psychometrics' staff held an "in-house" focus group meeting to rehearse protocol and to look for potential problems. All subsequent meetings with the study participants began with a short introduction covering the purpose and procedure for the project. Before the question period, discussants were told that the meeting was being tape recorded so that their comments could be transcribed. Assurances of strict anonymity were given. Few objected to the tape recorder or appeared to be inhibited by its use.

High school sample. The focus group meetings with high school students lasted from 50 to 60 minutes, that is, the amount of time normally set aside for class periods. Class instructors remained in the classroom during the meetings but, after introducing the Psychometrics team, they turned the class over to the moderator and the notetaker. Questions were asked in the order given in the moderators' guide and the meeting was conducted as an open discussion, with students free to speak at any point. To

get an indication of consensus, the moderators frequently asked whether others in the class agreed with an opinion just expressed. Students were encouraged to base their responses on their own experiences or on observations of others their own age.

Short discussions about the new DWI laws in California and factors determining one's blood alcohol level were introduced at various points in the discussion to maintain the students' interest and involvement. The discussion of DWI countermeasures began with the moderator describing several approaches given in the moderators' guide. The participants were then asked to comment on these countermeasures and to suggest others. Each meeting ended with the students relating their own ideas for avoiding driving while intoxicated. Each plan was regarded as a proposal that the rest of the group evaluated. In all the focus groups, a majority of students in each class participated in the discussions and were eager to offer their opinions.

Convicted DWIs. The focus group meetings with convicted DWI's lasted from 1 to 1½ hours. The AAP group leaders tended to play a more active part than did the high school instructors by participating in the discussions, sometimes challenging something that had been said or prompting a discussant to talk. In addition, the AAP rap-groups were more personal, and individual participants were encouraged to relate their own experiences. There was a tendency for discussants in some groups to give lengthy reports about the circumstances of their arrests.

The level of discussant involvement varied among groups. In some focus groups individuals took turns describing their behavior patterns leading up to DWI until every discussant in the group had contributed. In others, discussions were dominated by a few individuals. In only one of the eleven rap-groups did members object to the presence of the project team, because the moderator and recorder had not shared their experiences; also, they were singled out from a much larger DWI group for use as "guinea pigs"; and some were concerned that their comments could be used against them. Still,

while discussants in this group were reluctant to relate their personal experiences, they willingly offered suggestions about possible DWI counter-measures.

Method for Evaluating Information

Because the focus group sample was essentially non-random, it was difficult to determine the degree to which discussants' comments were representative of a larger population. Nor was it possible to analyze focus group information in terms of frequency data since opinions expressed during focus group meetings were more heavily weighted in favor of those who participated to a greater extent. However, the information can be analyzed qualitatively in a meaningful way. Qualitative analysis may even provide greater depth and fresher insights than might the more structured quantitative analysis. For these reasons, qualitative methodology was applied to identify the significant patterns of behavior preceding DWI and to uncover innovative approaches to reducing DWI.

The tape recordings of focus group discussions were transcribed and the transcript for each meeting was reviewed for completeness by the moderator and recorder for that meeting. Discussants' comments in the transcript were coded to determine the responses that were given most frequently or most emphatically to any particular question.

Recorders' notes were also reviewed by moderators and recorders. Each recorder read his notes and wrote a brief summary listing discussants' responses to each question. Notes also provided recorders' impressions concerning focus group attitudes which were difficult to evaluate using only the transcripts. In this way, the recorders' notes supplemented information contained in the transcripts and were used to identify dominant, recurring patterns arising out of the focus group discussions.

RESULTS OF ANALYSIS

This section presents the analysis of the focus group data. The results were divided into two parts: one part describes the emergent drinking driver patterns, and the other describes the proposed DWI countermeasures. Results for each group of the two samples, the high school students and the convicted DWIs, are presented separately, although comparisons will be made of their behavior patterns preceding DWI.

DWI Patterns

High School Students

Time and place. High school students reported that the weekend drinking preceding DWI in their age group most frequently occurred on Friday evening after school events such as athletic contests and less often on Saturday evening. Drinking usually took place at large, open parties in friends' houses when the friends' parents were away. The students mentioned that, while some may actually consume alcoholic beverages during school events (e.g., outside a football stadium or in the school parking lots), more often those environments were used to exchange details about the time and location of parties following the school event. Drinking was said to occur less frequently during concerts, in parking lots, in drive-in theaters, in public parks or at the beach, and in restaurants that rarely check minors for identification. Discussants said that drinking with adults was rare and only happened during family holiday gatherings or at family celebrations. When asked how much drinking is done in automobiles, opinions were divided. Some discussants thought that there was little drinking in vehicles because teens were afraid of being punished under the new drunk driver laws. Others said that there was still a great deal of drinking in automobiles, whether parked or in motion. However, it seems that, for at least some, the new laws have discouraged the consumption of alcoholic beverages in moving vehicles.

When asked where they usually go after drinking, the consensus among high school students was "home". "Party-hopping" was also common and some

discussants said that they usually left large, open parties to drink with friends in smaller, more private parties. Many students reportedly left parties temporarily to get something to eat, usually at a fast-food restaurant, or to get more alcoholic beverages to drink at the party. "Cruising" frequently occurred between 9 p.m. and 2 a.m. after a party ends or when the police break up a party. The students claimed that cruising was a means of finding information about other parties.

Beverages consumed. In all high school groups, beer was the alcoholic beverage most commonly consumed by both males and females. Females showed a greater preference than males for wine or for mixed drinks. Beer and wine were the most popular because they were relatively inexpensive and many stores that sold alcoholic beverages to minors (e.g. mini-markets) did not sell hard liquor. Beer was mentioned as being the alcoholic beverage most frequently consumed in automobiles. The students reported no difficulty in obtaining alcohol themselves from stores with well-known reputations for selling alcohol to minors. Some said that they purchased alcohol in small amounts from numerous sources early in the week and then stockpiled it until the weekend. Those who had more difficulty buying alcohol themselves usually obtained it through older-looking siblings, friends with false identification, or from friends who worked in liquor stores.

The drugs most frequently used with alcohol include marijuana, cocaine, Quaaludes, Valium, amphetamines, and nicotine. Although a few said that PCP was also taken with alcohol, the impression was given that this combination was rare and that PCP use has decreased substantially during the last few years.

When asked the quantity of alcohol usually consumed at a typical party, students replied that one often drank until intoxicated, or until there was nothing left to drink. There were differences of opinion as to whether males drank more than females. Some believed that females drank as much as males but, because they paced their drinking, showed less intoxication.

Others thought that females were intoxicated as often as males after drinking less alcohol. The majority of students in each focus group knew little about the alcohol content equivalence of alcoholic beverages and the effects of each beverage on blood alcohol levels.

Drinking companions. Students said that they most frequently drank with friends and rarely with family. The latter situation occurs only during family celebrations, and if parents approve. The students reported that they were less likely to drive after drinking with relatives. Cronyism among drinking males is common, particularly for teammates in school sports such as football, but drinking within groups of female athletes was said to be less common. However, it was mentioned that groups of high school girlfriends often drink together in the absence of males. While drinking with friends and schoolmates is the most frequent situation, large, open parties are common and often include strangers who become drinking companions.

Traffic violations. High school focus groups reported that the most frequent kinds of traffic violations committed by them after drinking were speed-related; i.e., speeding, gliding through stop lights and stop signs, fast starts and sometimes racing. Other moving violations mentioned less often included weaving, mechanical problems, driving too slow and reckless driving.

Motivations. When students were asked, "Why do you think that so many people (your age) drive after they have been drinking?," they most frequently replied that they had to get home. Most said they observed curfews. Those that drove family cars said that they could not abandon the car before returning home; if they arrived home without the car they would be unable to conceal their drinking and they would be punished. The majority of students had no arrangements with their parents to be picked up if they were too intoxicated to drive.

Another reason for DWI given frequently by the high school groups was that intoxicated people lose their "sense of ability to drive;" they do not

realize that their judgment is impaired and they think that "they can handle it." Students often referred to one's "false self-confidence" when discussing people who DWI. However, several students claimed that they were better and more cautious drivers when intoxicated.

Some students cited the lack of alternative forms of transportation as a factor that increased the probability of DWI. These discussants said that mass transportation was either inconvenient or nonexistent in their neighborhood. Cabs were judged to be too expensive and some claimed that arriving home in a cab would alert their parents to their drinking. One student even argued that people in Los Angeles rely so heavily on their automobiles that many of them don't even consider alternatives to driving their own cars.

Another reason given for DWI by teens was that the DWI laws were not always enforced, and teens do not think that they will get caught, especially if they don't know anyone who has. Many believed that the penalties for DWI were not strict enough and that judges usually did not give strong enough sentences. One student claimed that teens often think they can "get away with DWI" because there are more drunk drivers than police, and even though they know the DWI laws and the dangers, the majority of DWIs escapes detection. Another student said that one could always avoid the police by driving down side streets. While many students said they initially feared being arrested by the police for DWI, they recalled instances when they or their friends had been stopped by the police only to be let go after having their alcoholic beverages confiscated. Presumably this treatment by the police made teens more cautious about driving with open containers of alcoholic beverages in their cars, but tended to reduce their anxiety about being arrested for DWI. Another irony regarding police treatment of teenage drinkers was that police actions could serve to encourage DWI among teenagers when teens were forced to drive home intoxicated after the police "busted up" their parties.

Most students said that they rarely thought about the consequences of their actions prior to DWI. They claimed that, even though one might consider

these things when sober, the more one drank the less likely they would be inclined to think about their responsibilities; frequently students had a false sense of security when intoxicated, and a feeling that nothing would happen to them. The students tended to believe that having a good time was the main concern, and this, for at least some, meant "getting plastered" and getting home later on. Several students recognized that some teens were more responsible than others and these teens would show concern for driving after drinking if they had passengers in their car. However, students more frequently mentioned being worried only if they were driving with open alcoholic beverages in the car.

Convicted Drinking Drivers

Time and place. Because the convicted DWI focus groups were composed almost entirely of individuals older than twenty-one years, their DWI behavior was characterized by more public drinking and greater heterogeneity than that reported for high school students. Like the high school groups, there was still a tendency for most convicted DWIs to drink with their friends on weekends. However, their pattern differed from that of the students in several ways: they were just as likely to drink in their own house as their friend's house, they drank with a few select friends or in more intimate parties, and drinking often started in the afternoon rather than in the evening. Other circumstances or places where drinking occurred prior to being arrested for DWI included drag races, volleyball games at the beach, working on boats at the marina, and at bar-restaurants with girlfriends.

Another pattern frequently cited by the convicted DWIs, not mentioned by the students, was drinking in bars after work. Many convicted DWIs reported stopping off for the "happy hour" on the way home from work and some reported they continued to bar-hop throughout the evening. Drinking during the week was also common for those involved in regularly scheduled social events such as bowling or card games. One other difference between the drinking behavior of teens and convicted DWIs was that the convicted DWIs drank with relatives at family gatherings, such as wedding receptions, more frequently.

The majority of the discussants in the DWI focus groups said that they were traveling home, late in the evening, at the time of their arrest. Others said they were driving to procure more alcohol, usually from bars or restaurants while they were bar-hopping, and, to a lesser extent, from liquor stores. Many convicted DWIs said they preferred to drive on freeways rather than on surface streets when intoxicated because freeways had fewer stops and turns.

Beverages consumed. The convicted DWI focus groups in general indicated that hard liquor was consumed more often than beer and wine. Scotch and vodka, taken both "on the rocks" and mixed, were particularly popular. One discussant said that he drank vodka or scotch when he had enough money but otherwise drank wine. Beer and wine were more popular with the convicted DWIs who appeared to be under thirty years old. Although cocaine, marijuana and amphetamines were mentioned as drugs used with alcohol, some focus groups believed that drug abuse was not as common as that found among high school students. In those cases where drugs were used with alcohol, the convicted DWIs said that the drugs were consumed first, before drinking began.

Drinking companions. Friends, particularly girlfriends, and wives were the drinking companions most frequently cited by convicted drinking drivers. As reported by high school students, drinking with friends usually occurred on weekends. Drinking with fellow employees was also regularly mentioned but usually took place during the week after work. Others mentioned drinking with relatives, frequently at family reunions, where many drank to the point of intoxication. For some, drinking with strangers at bars was common, once sufficient alcohol had been consumed to lower their own social inhibitions.

Traffic violations. Most of the convicted DWIs mentioned that they were stopped by the police for weaving at the time of their arrest. Speeding was the next most frequent reason, and the next two were running stops and speeding through yellow lights. More discussants in the DWI group said

that they had been stopped by the police for having driven too slowly than did the discussants in the high school group; several said they were pulled over for having made wide or illegal turns. Also, more convicted DWIs than high school students reported having engaged in reckless driving and being involved in accidents. The accidents usually involved hitting stationary objects like freeway fences or parked vehicles. Many convicted DWIs claimed that they had been treated unfairly or singled out by the police and that the police were "out to get them." One discussant said that the officer who arrested him did so on "suspicion of DWI" after having seen him leave a bar. Others attributed their arrest to bad luck, particularly those who said they were stopped for driving automobiles in need of minor repairs, or those who were within blocks of their house when arrested.

Motivations. When asked why they thought so many people DWI the predominant opinion among the convicted DWIs was that people had to get home after drinking but distances were great in Los Angeles and there was a lack of public transportation. Most agreed that buses were too often not available in their neighborhood at night and that some bus drivers refused to take on intoxicated passengers. Taxicabs were not considered an acceptable alternative because most convicted DWIs considered them to be too expensive and often unavailable in certain areas, especially during the evening. Some even expressed the view that there was less negative social comment associated with DWI than with arriving at a party in a taxi. Others said many people simply do not realize that they are too intoxicated to drive. Some convicted DWIs spoke of feeling "fearless" or exhibiting a "superman" complex when intoxicated while others mentioned the ego involvement often associated with DWI: one is never so intoxicated that he can't drive home. A common attitude among the DWI groups was that irresponsible drinking is a part of American culture and is implicitly, if not explicitly, condoned by American social institutions. For example, many pointed to the glamorous image that advertisers often give to drinking, offering it as a means of adding excitement to life.

The consensus of the DWI focus groups was that people infrequently think about getting caught or getting in an accident when DWI. Most believed

that the general public was not too aware of the DWI problem and, therefore, thought little about its consequences. The convicted DWI groups said that intoxicated people only think of getting home and, since alcohol impairs judgment, intoxicated drivers are inclined to think that they can beat the odds of getting caught by the police. The convicted DWI focus groups said that they probably thought about getting caught more than do others because they had at least one previous arrest for DWI. However, they admitted that even though they thought about such things when sober, they lacked good judgment when intoxicated.

The only convicted DWIs who acknowledged that they were often afraid of getting in an accident when driving under the influence were those who had been involved in a previous alcohol-related accident. Some convicted DWI's said that they thought the stricter California laws might cause people to think more about the negative consequences of DWI.

DWI Countermeasures

Information on DWI countermeasures was collected in two stages. First, countermeasures already tried or proposed were described to the focus groups to achieve a common understanding of DWI countermeasures, and then the focus groups were asked to evaluate these approaches. Next, they were given an opportunity to suggest new countermeasures and to share their individual ideas, if any, for preventing DWI. The results from high school student and convicted DWI discussions are presented below.

High School Students

Devices and spot checks. High school students gave low marks to the proposed and previously used DWI countermeasures that were presented to them as examples. They were particularly critical of those countermeasures which involved any kind of electromechanical device, such as the "drunk driver warning system" or the "continuous monitoring device." The strongest objections to devices were that they add to the expense of owning an automobile and that a means of tampering with devices can always be

found. A number of students cited instances where anti-pollution and seat-belt warning systems had been disconnected by people they knew; they believed that DWI devices could probably be overridden or disconnected as well. Others stated that devices which tested a driver's coordination might pose serious problems for people with poor coordination or those attempting to operate their automobile in times of emergency. One discussant anticipated difficulties with distributing DWI prevention devices.

The high school focus groups were equally critical of a "model traffic violations law," and any similar law which was difficult to interpret and which entrusted the police with greater power. For example, random spot checks by police for intoxicated drivers were unanimously viewed as an invasion of privacy, and the students doubted that the police could enforce this law in an unbiased manner. Another student said that he did not think there would be enough room in existing jails for arrested DWIs if spot checks were allowed; still another expressed the opinion that police had "better things to do" than trying to catch DWIs by spot checking.

When high school focus groups were asked to propose their own DWI countermeasures, they suggested approaches which can be categorized as group-imposed and self-imposed countermeasures. For purposes of this study, group-imposed countermeasures include those actions taken by a body of people to regulate the actions of individuals, i.e., laws or public policies, while self-imposed countermeasures involve actions taken by individuals to control their own behavior, e.g., planning and increasing one's sense of responsibility.

Legal and enforcement measures. Group-imposed countermeasures mentioned by the students were primarily of two kinds: legal countermeasures that involve the enactment and enforcement of DWI and alcohol procurement laws, and improvements in the availability of alternative transportation. Few high school students actually knew the new DWI laws for California, and after having the laws explained to them, many believed that the laws should

be stricter, with a lower legal blood alcohol content. They also said that a more intensive effort should be made to inform the public about DWI laws. Some suggested that jail terms should be mandatory for all cases and that DWIs guilty of killing others should receive life imprisonment. Others thought that stiffer fines should be imposed or that the vehicles of DWIs should be impounded and their operator's license revoked for longer periods than currently practiced. More imaginative legal countermeasures included the creation of public work programs for convicted DWIs and windshield stickers which would embarrass convicted DWIs and which would indicate to the police the legal hours the convicted DWIs are permitted to drive. Although countermeasures for regulating alcohol sale and consumption were not solicited by the focus group moderators, some students said that alcohol procurement by minors should be made more difficult by restricting the number of hours when alcoholic beverages can be purchased and by making presentation of personal identification cards mandatory for all.

While the students indicated that stricter laws were required, they showed far more concern for more rigorous enforcement of existing laws, especially in DWI incidents involving people their own age. As mentioned earlier, many students shared the opinion that DWI was common because few offenders believed that they would ever be apprehended. Several students who had been stopped by the police were let go after their alcoholic beverages were confiscated. Many said police leniency only reduced their subjective evaluations of the chances of being caught driving while intoxicated. In addition to stricter law enforcement, the discussants believed that police should be taught to identify DWIs more readily. The students were upset over the hypocrisy of DWI law enforcement and adjudication and expressed the opinion that public figures such as legislators, judges and off-duty police should not be allowed to escape prosecution. Cases where public figures and celebrities "got off" tended to downplay the seriousness of the DWI problem and made the students think that, if others escaped prosecution, so could they. Some high school focus group members suggested that enforcement might be improved by forming citizen watch groups to assist the police.

Transport alternatives. The students shared the belief of the convicted DWIs that Los Angeles offered few transportation alternatives to driving one's own automobile. Most said that improvements in public transportation systems, such as local bus lines, were needed so that means could be provided for intoxicated persons presently left with no other alternative to get home except driving. Another suggestion was to offer a free taxi service for intoxicated people modeled after the service provided by private organizations during the Christmas holidays.

Intervention by others. When asked what another person could say or do to prevent an intoxicated person from driving, the majority opinion of the students was that there was practically nothing anybody could do: it is impossible to reason with a drunk person, physical restraint is difficult and can be dangerous, and taking away one's keys may lead to a fight. Some said that a close friend or relative previously involved in a DWI accident or arrest might be able to convince the drunk person to spend the night, or to just stay for a while. The problem is to do it in a manner that does not threaten the intoxicated person's ego. More reasonable and effective DWI countermeasures offered by the high school students were aimed at increasing each individual's awareness of the DWI problem as well as his sense of personal responsibility. They claimed that the incidence of DWI offenses could be decreased by teaching individuals to plan their evenings before drinking began, rather than expecting someone to intervene once they were intoxicated. Discussants said that responsibility could be developed at home but also argued for the use of high school classes and mass-media presentations to heighten student awareness and involvement with DWI issues.

Parent communication. The students indicated that the way they approached drinking and driving had much to do with the amount of responsibility their parents exhibited when drinking and driving, and the kind of communication between students and their parents about the drinking situation. Several voiced the opinion that their parents' attitudes toward teenage drinking left them with few alternatives to driving home, even when they knew they

were intoxicated. Consequently, many believed that students could be made more responsible if parents became better informed about the DWI problem and adopted a calmer, more rational attitude towards teenage drinking. Students could then plan their own countermeasures for preventing DWI without worrying about being punished by their parents for drinking. One student said that the parents of those arrested for DWI should be punished too; this might make adults and their children more responsible to each other and increase both parties' awareness of the dangers of DWI.

Planning. Numerous plans, or self-imposed countermeasures, were offered by high school focus groups. Those with open communication with their parents suggested calling one's parents for a ride home, having sober friends drive one home, either in their car or in the intoxicated person's car, or making arrangements with one's parents to at least be able to stay at the site of the party overnight. Some students said they determined the abstainers in the group and arranged for one of them to drive, or they gave their keys to an abstainer before drinking. Several students offered ways for selecting the abstainer in a group of drinkers, e.g., drawing straws; this person was charged with the responsibility of remaining sober and driving his friends home after the party. Other ideas were concerned with developing responsible drinking behavior such as drinking only at the beginning of the party, giving more time between one's last drink and departure time, and pacing one's alcohol consumption. However, this plan requires that individuals are informed about the alcohol content of their drinks and the capacity of their bodies to metabolize alcohol, facts many students don't know.

Education. Some high school students said that the schools could be more effective in informing students about DWI issues. Even though students in one of the high schools had been informed about drinking and driving during the driver's education course, most of that focus group concluded that high school classes were not effective because many students were not driving at the time they were enrolled. Some high school students believed that DWI instruction should begin even earlier, in junior high or possibly elementary school. The suggestion was also made that juniors and seniors might

be used to inform freshmen and sophomores. A few focus groups indicated that there should be special DWI education for teachers because informed teachers can sometimes have a positive effect on those students who tend to block out their parents' influence. One student commented that focus group meetings like those conducted by the Psychometrics moderators were useful for bringing DWI issues and information to the attention of students.

The media. Almost all focus group students thought that public awareness of the DWI problem could be increased through better use of the mass media, particularly films which could change the attitude that irresponsible or heavy drinking is acceptable and even to be admired. Films on the DWI problem, students said, could be shown on television, in schools, when applying for an operators license, in programs for convicted DWI's, and by business employers. However, students pointed out that films filled with too much technical or statistical information tended to bore people; they preferred films where drivers and victims of DWI offenses shared their experiences. Surprisingly, many high school students encouraged showing "shocking" films for exposing the consequences of DWI. They also suggested that films could depict ways to have fun other than drinking alcohol. One student recommended using radio "DJ's" to remind teenagers of the dangers of DWI on Friday and Saturday evenings.

Convicted Drinking Drivers

Devices and spot checks. When asked to evaluate the DWI countermeasures proposed in the moderator's guide, the DWI focus groups strongly rejected electromechanical devices. Like the high school students, DWIs thought that these devices would be ineffective because people could easily tamper with them, they would probably be unreliable and implicate sober people, and they would be too expensive. Some expressed the opinion that, even if the devices functioned properly, many drinking individuals would find a way to operate their vehicles because they would be more concerned about getting home than about getting arrested. One convicted DWI remarked that an intoxicated person could always have a sober person perform the test. Several thought that mandatory devices deprived individuals of their freedom and only ignored the source of DWI problems.

Similarly, they predicted that measures such as DWI spot checks by police were unfair and impractical. The model traffic violations law was criticized for being ambiguous, arbitrary and unrealistic. Several convicted DWIs agreed that "restricted driving hours" for previously convicted DWIs sounded like a good idea, but said that intoxicated persons would probably drive during restricted hours anyway, recording devices could be disconnected or tampered with, and this countermeasure would be difficult for the police to enforce.

Legal and enforcement measures. Most convicted DWIs claimed that stricter DWI laws, along with efforts to inform the public about the laws, would be the most reliable and effective means of curbing DWI offenses. Several said that mandatory county jail was the most feared and only real deterrent as far as they were concerned. Many believed that the new California drunk driving laws were sufficient but unfairly enforced and contained too many legal loopholes; not all offenders were going to jail. The convicted DWIs said that police should be particularly tough on kids, to scare them enough so that they would not develop a passive attitude toward DWI. A few groups suggested increasing fines and impounding the vehicles of convicted DWIs. There was general agreement that jail sentences should be given for first offenses and increased for subsequent offenses. One convicted DWI felt that public work projects should also be assigned to convicted DWIs as part of their punishment. Another proposed mandatory prison sentences for those guilty of killing others while DWI. Other legal countermeasures to DWI offered by DWI focus groups included reducing the number of licenses issued for selling alcohol and reducing the alcohol content in liquors.

Transport alternatives. Since one of the most frequent excuses given by convicted DWIs for their offense was that there were no alternative forms of transportation available, it is not surprising that the most popular DWI countermeasure offered by them was to improve mass transit systems in Los Angeles. Better bus lines, monorails, and low-fare minibuses were suggested. Several DWI focus groups suggested that alcohol taxes should be increased and the revenues used to fund improvements in rapid transit

systems. Others thought that cabs might be used more often if there were more of them and if they offered cheaper fares. One idea was for government to provide free taxi service to intoxicated persons or to subsidize a program where they could use "funny money" to pay for a taxi ride home.

Bartender responsibility. Some convicted DWIs said that bars and restaurants should assume more responsibility for people that leave their establishments in an intoxicated state. One discussant even suggested enclosing bar and restaurant parking lots and screening drivers for DWI as they left the lot. Several DWI focus groups expressed the opinion that there should be breath analyzers in bars and even went so far as to say that customers should be required to give a bartender their keys upon entering the bar and pass a test for intoxication before their keys are returned. Others laid blame more directly on bartenders and advocated adopting stiffer penalties for bartenders who serve intoxicated customers. They said that bartenders should take it upon themselves to call taxis for customers too intoxicated to drive home.

Intervention by others. There was general agreement among convicted DWI focus groups that there is virtually nothing one can say or do to prevent another from DWI unless the intoxicated person had a previous DWI conviction. The majority opinion was that people are irrational when drunk and probably will not listen to others. One discussant doubted that anything could be done to stop "Americans" from driving and claimed that drunks in particular often pride themselves on being able to drive home or in presenting a "macho" image. For these reasons many thought that talking to a previously convicted DWI might work, but physical restraint or taking away one's keys would not.

The media. As an alternative to intervening once people are intoxicated, the convicted DWI focus groups claimed that reducing DWI offenses could more effectively be done by changing public attitudes about drinking and driving, and encouraging people to adopt greater responsibility for their drinking behavior. Many from the convicted DWI focus groups thought that

the media should be used to:

- decrease the social acceptability of DWI
- create non-drinking popular role models
- show DWI arrest and prison experiences
- communicate DWI hazards, including legal penalties and effects alcohol consumption on driving
- eliminate all media advertising of alcoholic beverages.

A suggestion was made to tax liquor sales and use the revenues to sponsor media campaigns directed against DWI. Another idea was to put crosses at sites of DWI fatalities to increase public awareness. Some of the convicted DWIs remained skeptical and had low expectations for the effectiveness of media blitzes. Generally, this group said that education would not work for those without a prior DWI conviction; others doubted that any countermeasure affecting the big-money interests of the alcoholic beverage industry would be put into effect.

Education. Most convicted DWI focus groups expressed the opinion that education about drinking and driving should be offered in driver's training classes, because youths' habits and attitudes were still developing. Some thought that scare tactics would be useful, following the example of the "scared straight" program for juvenile delinquents. Other discussants said that DWI education should be required before one is issued an operator's license and one person recommended that applicants for licenses should take a driving test while intoxicated to dispel any myths they might have concerning their ability to maneuver a vehicle after drinking.

Planning. Convicted DWI focus groups were encouraged to discuss their own plans for avoiding DWI. Few novel plans were offered but all plans stressed the role of individual responsibility, that is, making arrangements before drinking began. The most frequent strategy taken by DWIs, short of abstinence, was to quit bar-hopping and to do more of their drinking at home or in bars close to home. Others, if far from home, stayed at motels, and some walked or took taxis prior to drinking. One

discussant said that he let a friend drive or gave his car keys to a friend before drinking, reducing the chances of a confrontation later if someone tried to take his keys from him. Others attempted to monitor their rate of alcohol consumption: counting drinks and then abstaining from drinking or switching to soft drinks a couple of hours before departing. A few convicted DWIs said that they let their girlfriends or wives drive, but most believed that this approach was not effective since the companions of intoxicated people often have been drinking themselves. In fact, two of the women in DWI focus groups were driving their male companions home at the time they were arrested.

DISCUSSION AND RECOMMENDATIONS

This study had as its ultimate objective the recommendation of counter-measures that would effectively interrupt DWI behavior patterns. The study was not concerned with stopping individuals from drinking, but with preventing them from driving if intoxicated.

The focus group approach was used to collect information about drinking and driving habits from high school students ages 16 to 18, and from adult convicted DWIs. This approach tends to garner consensual or modal data rather than structured frequency data. The reactions of the focus groups in the study were, on the whole, spontaneous and interested, and groups gave full participation. These two conditions helped to ensure the reliability of observations regarding modal patterns and attitudes.

Since this study was restricted to teenage drivers at high schools in mostly middle class socioeconomic areas, and to adult convicted DWIs who preferred involvement in Alternative Action Programs to jail terms or losing their drivers' licenses, the generalizability of the findings concerning behavior patterns may be limited. However, there were strong areas of agreement between the students and the convicted DWIs where counter-measures were concerned.

The discussion below includes a summary of the findings, evaluations of countermeasures, and several recommendations.

DWI Behavior Patterns

The content analysis of focus group discussions revealed that, while some attitudes and DWI behavior patterns continue from teen years into later years, there were notable differences between the DWI behavior patterns of high school students and the older population of convicted DWIs (Table 3).

Table 3. COMPARISON OF DWI BEHAVIOR ELEMENTS FOR
HIGH SCHOOL AND CONVICTED DWI FOCUS GROUPS

Discussion Variables	Focus Group	
	High School	DWI
Time of drinking	Weekend evenings	Weekend evenings Weekdays during "happy hours"
Place of drinking	Large parties at friend's house	Private parties at friend's or own house Bar/restaurant
Beverage	Males: beer Females: beer & wine	Cocktails and liquor Beer and wine
Companions when drinking	Friends	Mates Friends and co-workers Relatives
Drugs used with alcohol	Marijuana & cocaine	Few drugs used; inconclusive
DWI traffic violations, modal type	Speed-related	Weaving
Location when DWI	On the way home Cruising	On the way home On the way to procure more alcohol

High School Sample

The most typical DWI pattern for teenagers was to drink in large groups at a friend's house when the friend's parents are out, usually late Friday or Saturday evening. School events often provide a meeting place for drinking or for communicating information about parties. While beer is the most popular alcoholic beverage among both male and female high school students, female students frequently mentioned a preference for wine and mixed drinks. The students claimed that the drugs use with alcohol were most frequently marijuana and cocaine; however high school focus groups gave the impression that drug use is decreasing. The most common type of DWI traffic violations committed by teens were speed-related and usually occur while driving home or "cruising".

Convicted DWIs

While convicted DWIs also frequently drink with friends, groups tend to be smaller and more intimate: drinking leading to DWI often occurs with fellow employees after work, with relatives on holidays, or at family gatherings such as wedding receptions. The convicted DWIs are more inclined than the teenagers to consume cocktails and hard liquor. Many of the convicted DWIs were arrested late in the evening during the weekend; however, unlike the high school students, many others drive while intoxicated on weekdays after drinking at "happy hours". Information concerning drugs used with alcohol was fragmentary for the convicted DWI group. The most typical driving violation leading to arrest was "weaving" while driving home or driving to purchase more alcohol.

Attitudes About DWI Countermeasures

The opinions expressed at the focus group meetings indicated possible areas for changing individuals' behavior patterns before they culminate in DWI. Table 4 presents the modal reactions of the high school and the convicted DWI focus groups to the countermeasures described by the focus group moderators and also lists techniques suggested by the focus groups.

All focus groups claimed that it is unrealistic and ineffective for others to intervene in order to prevent an intoxicated person from driving. Even

Table 4. ACCEPTABILITY OF COUNTERMEASURES

<u>Countermeasure</u>	<u>High School</u>	<u>DWI</u>	<u>Suggested Countermeasures or Comments</u>
Electromechanical Devices	low	low	High School Students
Legal:			Public work programs for convicted DWIs
Stronger enforcement of			Windshield stickers that identify DWIs
DWI traffic laws	high	high; mixed	Form citizen watch groups to assist police
Stricter laws	high	high	Show films on DWI, etc., when applying for
Random spot checks	low	low	driver's license
Transportation:			Use focus group meetings similar to that in
Offer more transportation	high	high	study to disseminate information
			This group favors peer group involvement in
			planning
Personal Interference:			Convicted DWIs
Physical restraint by			
companion	low	low	
Take away drunk companion's			Mandatory county jail sentences
car keys	low	low	Reduce alcohol content in beverages
			Reduce number of liquor licenses issued
Education & Mass Media:			Increase bar and restaurant responsibility
More information on DWI			for customers who DWI
laws	high	high	Regular media programming to enhance the
More information on alcohol			popularity of non-drinking roles
content & consequences of			Use liquor sale taxes to fund media effort
drinking	high	high	to inform
Scare tactics	high	high	This group favors personal planning
Group and Individual Planning:			
(i.e., choose an abstainer)	high	high	
Change Parental Attitudes			
Towards Drinking:			
(so that one can come home			
by alternative transportation			
rather than covering up)	high	--	

though it's possible for a person to consider the consequences of DWI when sober, the risks of DWI seem to fade when one is intoxicated. Based on this observation, it is reasonable to conclude that effective countermeasures must raise the subjective perception of DWI risk and induce people to make specific plans to avoid DWI before they actually begin drinking.

The focus groups also established that most people, particularly teens, are uninformed about both DWI laws and alcohol's effect on driving ability. Without this information, people either will not consciously evaluate the DWI risk, or if they do their assessment of it will be too low. An effective approach to curtailing DWI activity must provide people with the information they need in order to appreciate fully the dangers of DWI.

The focus groups repeatedly expressed the opinion that information is more readily assimilated if it comes from peers with DWI experience. The literature review and experience with focus groups during this project indicate that subjective evaluation of DWI risk often increases after an individual, or someone familiar, has been involved in an alcohol-related accident. This effect was particularly noticeable among the Bellflower students who had experienced the alcohol-related deaths of fellow students within the last year. Based on these views it seems that knowledgeable teens, preferably those with previous DWI involvement, should be the ones to disseminate DWI information to other teens.

All focus groups strongly indicated the need for strict, uniform enforcement of tough DWI laws which jail all offenders, including teens. Police leniency toward teens only tends to reduce their assessment of DWI risk and increases the likelihood of them repeating their DWI offenses. Consequently, programs aimed at informing the public about the legal risks of DWI must be supported by rigorous enforcement of DWI laws if the public is to perceive these risks as being real.

The focus groups agreed that planning a scenario before drinking would be more effective than relying on others to intervene spontaneously after

drinking begins. For teens this means determining before the party begins who is not to drink, and then riding home with that person. An alternative would be to make arrangements in advance of drinking to spend the evening at the home where the party was held. Those convicted DWIs who had not given up drinking said that their planning involved alternative transportation, but pointed out that in Los Angeles the alternatives were few.

Many teens thought that their parents and the police left them with few options other than to DWI, either because they were given a curfew and had to return the family car, or because they sometimes had to drive, home or elsewhere, in an inebriated state after the police broke up a party. A candid understanding between parents and their teenagers regarding drinking was therefore stressed as necessary to prevent at least some DWI incidents.

Recommendations

The DWI countermeasures recommended in this report center around the notion of plans to interrupt the DWI sequence. While planning is an important and pervasive mental operation in other areas of everyday life such as personal finance, health and family care, it does not seem to be a part of the habit pattern of drinking drivers. This suggests that the drinking public does not realize the full gravity of DWI, and has not thought about alternative solutions to driving when intoxicated. Some positive action can be taken for those in high school, that is for those in a learning situation. Consequently, the first of the following recommendations is aimed at encouraging teenagers to plan alternatives to DWI. The other recommendations are intended to provide teens with the necessary information and motivation for planning. Like the ASAP, the package of DWI countermeasures should be designed to work together.

1. Teach teenagers to make plans, prior to a drinking period, for getting home after drinking.
2. Improve the accuracy of their perceptions of DWI risks, such as loss of life or property, fines, imprisonment, and suspension or revocation of

their operator's licenses, to induce teens to come up with DWI avoidance plans.

3. Use peers with DWI experiences to inform teens about alcohol's effect on driving ability, the DWI laws, and the inherent risks involved when DWI.
4. Make clear to the parent population the realistic trade-off between DWI consequences and permitting their teenagers to feel free to take alternative forms of transport home after drinking.
5. Intensify police enforcement of DWI infractions by teenagers and public figures that serve as their models.
6. Because of the media's influence on young people, encourage the media to deglamorize people who drink.
7. In using informational countermeasures with the high school population, presentations should be scheduled for Thursdays and Fridays, just prior to the weekend drinking.

These recommendations also indicate areas for further study. Each area should be researched for optimizing the effectiveness of the countermeasure. The results from this project reveal that more needs to be known about the social dynamics of teenage drinking preceding DWI. Additional study in this area should attempt to determine the full range of options that teens have, other than to DWI, when planning social activities which include alcohol consumption.

Both the focus group procedure used in this study and the results from the proposed study above could be used to develop a program of instruction for high school classes. The program should use teenage DWIs, where possible, to provide information to their high school peers. Also, the courses should include practicums requiring students to anticipate and solve realistic situations where driving might occur after drinking.

Programs should be continued to develop media presentations that educate parents about DWI facts. These public information programs must encourage parents to establish an open dialogue with their teenagers and sensitize them to the role they can play in helping to arrive at solutions which significantly reduce DWI risk.

Finally, it should be said that the real challenge arising from this study is to find a way of utilizing the power of peer pressure so that planning to avoid DWI precedes any group drinking. Peer pressure works in a negative way in promoting drinking among teenagers; it can work in a positive way by making group members cooperate to prevent DWI after each drinking party. The high school is the place to reach most teenagers of driving age, and the media is the means of reaching other young people who are not in high school. Focus group discussion, preferably led by a young person who has been arrested for DWI, is one recommended means for getting the message across to members of any drinking group.

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APPENDIX A

MODERATOR'S GUIDE

Psychometrics, Inc.
DOT Project, 1982

MODERATOR'S GUIDE FOR
DWI FOCUS GROUP DISCUSSIONS

INTRODUCTION

My name is _____. I work for Psychometrics, Inc., a private research corporation in Santa Monica.

We are conducting a study of drinking driver behavior for the U.S. Department of Transportation. The Department of Transportation is interested in getting your opinions about factors leading up to driving while intoxicated and countermeasures which can be taken to prevent those who have been drinking from driving. I hope you will be frank and candid in your remarks. Not only will this contribute to the success of our project but your ideas may be used by the Department of Transportation to plan programs for making our streets and highways safer.

NOTE TO MODERATORS: Mention that all information gathered during this discussion will be anonymous and that the discussion is being taped.

I. Factors leading up to driving while under the influence of alcohol

A. Now I would like to begin our discussion by asking you some questions about factors leading up to driving while under the influence of alcohol. In order to develop effective driving safety programs it is important to find out about people's driving habits. For example, since over 50% of the accidents in this country resulting in fatalities are alcohol related, it is important to identify the habits of drinking drivers.

1. Based on experience with people your age, how would you characterize the typical sequence of events which leads up to driving while under the influence of alcohol?
 - a. Where do people who drive under the influence of alcohol usually do their drinking? What time of day?
 - b. What do they usually drink? How much? What other drugs are most frequently used with alcohol?
 - c. With whom do drinking drivers usually do their drinking?
 - d. Where do people usually go after they have been drinking?
 - e. What are the most frequent kinds of traffic violations committed by drinking drivers?
2. Why do you think that so many people drive after they have been drinking?
 - a. Prior to driving while under the influence of alcohol, do you believe people think about the consequences of their actions, such as getting caught or getting in an accident?

II. Attitudes towards DUI countermeasures

- A. Now we would like to discuss some ways of reducing the number of accidents due to drinking drivers. We would like to get your opinions about some approaches which are under consideration or in use, and other new ideas that you might offer to help reduce the number of drinking drivers on the road.

Several approaches being proposed are the following:

A Model Traffic Violations Law which would more severely punish drivers who committed a dangerous moving violation and had a significant blood-alcohol level, even if they were not legally drunk.

Restricted Driving Hours for convicted drunken drivers. These drivers would have to put a recording device in their cars which would record when a car was driven. Periodically, the driver would be required to turn in his recorder to a probation officer.

A Drunk Driver Warning System would require drivers to pass a coordination test after they started their car and, if they could not pass the test, the car's emergency lights and horn would alert the police while the car was moving.

A Continuous Monitoring Device would continuously measure a driver's coordination and alertness while driving and, if the driver was not driving safely, the car's emergency lights and horn would signal the police.

1. What is your reaction to these approaches?
 - a. Which of these would be most effective at reducing the number of alcohol related accidents and deaths?
2. What other possible countermeasures can you think of that are not contained in the list just mentioned?
 - a. What could another person say or do to prevent an intoxicated person from driving?

APPENDIX B

RECORDER'S FORM

FOCUS-GROUP PROCEEDINGS

				Place	_____	/Grade	_____	
				Time	_____		_____	
				Date	_____		_____	
				Moderator	_____		_____	
				Recorder	_____		_____	
SEX	Female	_____	Males	_____				
ETHNIC GROUP	White	_____	Black	_____	Hispanic	_____	Asian	_____

I.1.a. Where do people who drive under the influence of alcohol usually do their drinking? What time of day?

b. What do they usually drink? How much? What other drugs are most frequently used with alcohol?

I.1.c. With whom do drinking drivers usually do their drinking?

d. Where do people usually go after they have been drinking?

e. What are the most frequent kinds of traffic violations committed by drinking drivers?

I.2. Why do you think that so many people drive after they have been drinking?

- a. Prior to driving while under the influence of alcohol, do you believe that people think about the consequences of their actions, such as getting caught or getting in an accident?

II.1.a. Which of these (approaches) would be most effective at reducing the number of alcohol-related accidents and deaths?

II.2. What other possible countermeasures can you think of that are not contained in the list just mentioned?

a. What could another person say or do to prevent an intoxicated person from driving?

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