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COMPARISON OF DEMOGRAPHIC CHARACTERISTICS

AND PERSONAL ATTITUDES OF POLICE OFFICERS TO

THEIR DRUNK DRIVING ENFORCEMENT PERFORMANCE

presented by

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has been accepted towards fulfillment of the requirements for

Ph.D. degree in Education

Major professor

Date May 4, 1981

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# COMPARISON OF DEMOGRAPHIC CHARACTERISTICS AND PERSONAL ATTITUDES OF POLICE OFFICERS TO THEIR DRUNK DRIVING ENFORCEMENT PERFORMANCE

Ву

Dennis D. Bryde

#### A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Administration and Higher Education

#### ABSTRACT

COMPARISON OF DEMOGRAPHIC CHARACTERISTICS AND PERSONAL ATTITUDES OF POLICE OFFICERS TO THEIR DRUNK DRIVING ENFORCEMENT PERFORMANCE

By

Dennis D. Bryde

This exploratory research identified those demographic characteristics and personal attitudes of patrol officers from two Midwest police departments that are related to the number of drunk driving arrests made by these officers. A 43 item questionnaire was administered to these officers to determine their:

- demographic characteristics, e.g., age, education, drinking habits.
- attitudes concerning perceptions of support for drunk driving enforcement.
- attitudes concerning the procedures for processing a drunk driving case.
- attitudes concerning the drunk driver and the act of drunk driving.

These compiled characteristics and attitudes were examined in relation to the number of drunk driving arrests made by each respondent. The enforcement data for each officer were compiled from the departments' 1980 official records.

The major findings reached in this study were as follows:

- 1. These characteristics and attitudes were found to be related to the higher enforcement levels:
  - Perception that arrest procedures are "too time consuming," and involve "too much paperwork."
  - Perception that financial incentives for drunk driving arrests are inadequate for the extra time spent.
  - Perception that citizens support strict enforcement.
  - Perception that courts and prosecutors are not doing their job in dealing with drunk drivers.
  - Perception that just about anybody who drinks is guilty of drunk driving at some time.
  - Perception that it is proper to patrol for drunk drivers around drinking establishments.
  - Recognition of the value of strict drunk driving enforcement.
  - Experienced an accident with a drunk driver or have policed a fatal or serious personal injury accident involving a drunk driver.
  - Perception that their department does not adequately stress the importance of drunk driving enforcement.
  - Tendency to arrest if drunk driver caused an accident.
- These characteristics and attitudes were found to be related to the lower enforcement levels:
  - Perception that some people can safely operate a vehicle with a blood alcohol level of .10%.
  - Tendency to pass up a drunk driving arrest if there is a department manpower shortage at the time of contact.
  - Perception that many drunk drivers are uncooperative, insulting and/or alcoholic.

- Non-drinker (low to moderate enforcers).
- Tendency to personally drink too much at times and still drive.
- Have received special drunk driving enforcement training.
- Perception that there is no value in arresting for drunk driving where no accident was caused or serious violation committed.
- Inclined to release a drunk driver if traffic is light.
- Inclined to release if stopped near the suspect's home.
- Perception that drunk driving does not pose a large hazard to public safety.
- Perception that no one should mix drinking with driving.

Perhaps the most important conclusion to be derived from this study is that specific personal attitudes and selected demographic characteristics of police officers are related to their levels of drunk driving enforcement.

#### **ACKNOWLEDGMENTS**

The writer wishes to express appreciation to a number of individuals without whose assistance this dissertation could not have been accomplished.

To Dr. Van Johnson, Professor in Administration and Higher Education, whose encouragement and support as academic advisor is most appreciated, the writer is particularly grateful for his shared insight and direction given during the course of this study.

To other members of the doctoral committee, Professor Walter Johnson of Administration and Higher Education, Professor Norman T. Bell of Educational Psychology and Osteopathic Medicine, and Professor Ralph Turner of the School of Criminal Justice, grateful appreciation is expressed for their assistance and encouragement.

To Mrs. Betty Ruskin, who assisted in much of the typing and editing of this study, the writer stands eternally grateful.

To the administrators and members of both participating Police Departments whose understanding and over-whelming cooperation made this study possible.

Finally, to my wife, Dawn, and my three children,
Steven, Scott and LeeAnn, for their patience, encouragement
and many sacrifices, I offer my deepest thanks.

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#### CHAPTER I

#### INTRODUCTION

While the motor vehicle remains our country's principal means of transportation, it ranks as one of our nation's most serious threats to loss of life and personal injury. The National Safety Council reports that in 1979 nearly 1000 persons a week (51,900) died from injuries sustained from vehicle crashes on United States highways. Research studies designed to examine the cause of fatal vehicular collisions have shown that the use of alcohol coupled with driving constitutes a strong causal factor in a disproportionate number of these crashes. 2

National Safety Council, Accident Facts: 1980 Edition, Chicago, Ill., 1980, p. 6.

<sup>2</sup>D. W. Berry, "Alcohol as a Factor in Traffic Accidents," Quarterly Journal on Alcohol Studies, Vol. 1, 1946, p. 413; J. K. Boek, "Driver Behavior and Accidents," American Journal of Public Health, Vol. 47, 1957, p. 546; R. F. Borkenstein and others, The Role of the Drinking Driver in Traffic Accidents, ed. Allen Dale, Purdue, Department of Police Administration, Indiana University, 1964; A. B. Cassie and W. R. Allen, "Alcohol and Road Accidents," British Medical Journal, Sat., Dec. 23, 1961, p. 1668; H. C. Freimuth, S. R. Watts and R. S. Fisher, "Alcohol and Highway Fatalities," Journal Forensic Science, Vol. 3, 1958, p. 65; S. R. Gerber, Vehicular Fatalities in Cuyahoga County, U.S.A., Twenty Years' Experience (1941-60) in Alcohol and Road Traffic, B.M.A. House London 1962, pp. 38-44; J. D. J. Havard, "Alcohol and Road Accidents," Practitioner Vol. 188, 1962, p. 498; R. L. Holcomb, "Alcohol in Relation to Traffic Accidents," JAMA Vol. 111, 1938, p. 1076; and G. H. W. Lucas and others, "Quantitative Studies of the Relationship Between Alcohol Levels and Motor Vehicle Accidents,"

In an attempt to provide an effective countermeasure to loss of life and injury resulting from "drunk driving," training curricula have been designed to prepare law enforcement officers for the task of effectively dealing with the "drunk driver" prior to collision involvement. The focus of this training deals primarily with the presentation of techniques to be employed in the identification of the driver who is under the influence of alcohol, along with the procedures to be used in gathering evidence for the prosecution of a drunk driving case and with the knowledge of skills and procedures to be used in presenting related testimony in a judicial hearing.

This approach of early detection accompanied with strict enforcement is designed not only to remove the violator from the road, but also to provide the genesis for entry of this person into alcohol referral programs dealing

Proceedings of the Second International Conference on Alcohol and Road Traffic, 1953, pp. 139-142.

Driving Under the Influence of Alcohol and Drugs,
Traffic Law Enforcement Series 2071, Evanston, Traffic
Institute, Northwestern University, 1966; International
Association of Chiefs of Police, Alcohol Enforcement
Countermeasures Instructor's Manual, Washington, D.C., 1971;
National Highway Traffic Safety Administration (NHTSA),
Factors Influencing Alcohol Safety Action Project Police
Officer's D.W.I. Arrests, Springfield, Va., National
Technical Information Service, 1974 (Study conducted by
Arthur Young & Co.); and National Highway Traffic Safety
Administration, Factors Influencing Arrests for AlcoholRelated Traffic Violations, Springfield, Va., National
Technical Information Service, 1974 (Study conducted by
Dunlap and Associates, Inc.).

<sup>4</sup> Ibid.

with the overindulgent driver and many other programs that relate to social problems often associated with excessive drinking. Therefore, success of this approach for dealing with the drunk driver rests not only on an officer's ability to detect and properly process a drunk driver but also possibly more importantly on the officer's willingness to arrest a violator for drunk driving.

It appears from several studies that many police officers have strong personal attitudes along with varying demographic characteristics, i.e. sex, age, drinking habits, work experience, education, contact with drinking drivers and relevant training, that operate independently of their technical knowledge or professional position on the issue of strict drunk driving enforcement. These attitudes and characteristics may well be of paramount importance in determining how an officer tends to formulate arrest/no arrest decisions and whether he will make such arrests readily or only reluctantly.

## The Problem

The problem this study addresses is the lack of understanding as it relates to the relationships that exist between police officers' selected demographic characteristics and personal attitudes, and their drunk driving

<sup>&</sup>lt;sup>5</sup>NHTSA (Young and Dunlap studies).

<sup>&</sup>lt;sup>6</sup>NHTSA (Dunlap study), p. 10.

enforcement performance. The specific problem addressed in this study is that this lack of understanding, as just described, exists within the two Midwest police departments to be examined in this study. (For the purpose of this study, these departments will be referred to as Department "A" and Department "B".)

While numerous studies have identified the general public's and select groups' attitudes toward drunk driving, 8 few studies have attempted to examine the relationships that exist between these attitudes and behavior. 9 Even fewer

<sup>&</sup>lt;sup>7</sup>Statement made by the Chief of Police, Police Department "A", 2-5-81, and by Chief of Police, Police Department "B", 2-11-81.

<sup>&</sup>lt;sup>8</sup>Survey of Police Officers on Drinking Matters, Alcohol Safety Action Project -- Hennepin County, Minneapolis, 1975, 34 pp.; Knowledge and Attitudes of the New Hampshire Residents Concerning Drinking and Driving; Results of a Baseline Survey, Alcohol Safety Action Project -- New Hampshire, Concord, 31 May 1972, 55 pp.; C. W. Lynn, Drinking-Driving Attitudes, Knowledge and Behavior: An analysis of the first four telephone surveys of the Fairfax Alcohol Safety Action Projects, Final Report, Virginia Highway and Transportation Research Council, Charlottesville, May 1977, 60 pp. (Sponsored by NHTSA and Virginia Highway Safety Division, Richmond; Subject is ASAP -- Fairfax, Va.); M. W. Perrine, "Identification of Personality, Attitudinal and Biographical Characteristics of Drinking Drivers," Behavioral Research in Highway Safety, Vol. 1, No. 4, Winter 1970, pp. 207-226; A Knowledge and Opinion Survey of Phoenix High School Students About Drinking and Driving; Patricia Pliner and Howard Cappell, "Drinking, Driving, and the Attribution of Responsibility," Journal of Studies on Alcohol, Vol. 38, No. 3, 1977.

<sup>9</sup>Howard T. Blane, Willis F. Overton and Morris E. Chafatz, "Social Factors in the Diagnosis of Alcoholism," Quarterly Journal on Alcohol Studies, Dec. 1962, pp. 640-663; M. M. Hyman, A. R. Helrich and G. Besson, "Ascertaining Police Bias in Arrests for Drunken Driving," Quarterly Journal of Studies on Alcohol, Vol. 33, No. 1, March 1972,

studies have attempted to explore the relationships between police officers' attitudes and selected demographic characteristics, and the officers' drunk driving enforcement behavior. And no study, to date, has been conducted to examine this question in either of the two departments to be examined.

This lack of accurate information concerning these relationships that exist between police officers' demographic characteristics and personal attitudes, and those officers' drunk driving enforcement performance create a problem for the educator. For with an accurate understanding of these relationships, an educator could enhance the effectiveness of a training curriculum which is designed to prepare and motivate officers for the task of enforcing the drunk driving statutes.

pp. 148-159; M. A. Lees, "An Analysis of the Judicial Disposition of Alcohol Related Traffic Arrests," South Dakota University, Vermillion, Human Factors Psychology Laboratory, May 1974, 83 pp. (Sponsored by ASAP -- South Dakota, Pierre and NHTSA, Office of Alcohol Countermeasures.); National Highway Traffic Safety Administration, Factors Influencing Alcohol Safety Action Project Police Officer's D.W.I.

Arrests, Springfield, Va., National Technical Information Service, 1974 (Arthur Young & Co. study); and National Highway Traffic Safety Administration, Factors Influencing Arrests for Alcohol-Related Traffic Violations, Springfield, Va., National Technical Information Service, 1974 (Dunlap and Associates, Inc., study).

<sup>10</sup> NHTSA (Young and Dunlap studies).

<sup>11</sup> Statement made by the Chief of Police, Police Department "A", and by Chief of Police, Police Department "B", 2-5-81 and 2-11-81 respectively.

This lack of knowledge concerning relationships also poses a problem for administrators. For with an accurate identification of those police officers' personal attitudes and characteristics that have a positive or negative relationship to drunk driving enforcement performance, the administrator would be better prepared to develop policies to motivate police personnel, to make decisions on personnel to be assigned to this task, to develop policies for the development of internal training, and to develop departmental or agency procedures for dealing with drunk driving enforcement. 12

Lastly, this lack of understanding in reference to these relationships affects the individual police officer. For with accurate information concerning these relationships, an officer would be better equipped to self-evaluate his or her own motives for the enforcement or lack of enforcement taken against drunk drivers.

# Purpose of Study

The purpose of this study is to identify those personal attitudes and selected demographic characteristics of City "A" and City "B" patrol officers that are related to their drunk driving enforcement performance. This study will evaluate four general research questions.

<sup>12&</sup>lt;sub>Ibid</sub>.

- What is the nature of the relationship between police patrol officers' selected demographic characteristics and their drunk driving enforcement performance?
- 2. What is the nature of the relationship between police patrol officers' attitudes concerning their perception of support for drunk driving enforcement and their drunk driving enforcement performance?
- 3. What is the nature of the relationship between police patrol officers' attitudes concerning the procedures involved in processing a drunk driving case and their drunk driving enforcement performance?
- 4. What is the nature of the relationship between police patrol officers' attitudes concerning the drunk driver as a person and the danger he/she poses to highway safety, and their drunk driving enforcement performance?

The conclusions reached in this study should provide information that will assist those charged with the responsibility of preparing officers to fully enforce the drunk driving statutes. This person charged may be an educator or a training officer who is responsible for the preparation of a curriculum to train and motivate police officers into strict drunk driving enforcements; or it may be the administrator who is responsible for making personnel assignments or developing procedures that will maximize the productivity of the personnel responsible for drunk driving enforcement. Further, this study should provide information that would be useful to the police officer who wishes to self-evaluate his or her own motives for enforcement or lack of enforcement of the drunk driving laws.

## Method of Study

This study involves two adjoining Midwest communities. For the purpose of this study, they will be referred to as City "A" and City "B". Patrol officers from both of these cities' police patrol divisions will be surveyed through the use of a modified version of a National Highway Traffic Safety Administration questionnaire. 13

This questionnaire is designed to collect both selected demographic characteristics and personal attitudes from the respondents. These demographic characteristics consist of age, sex, work experience, education, special drunk driving enforcement training, personal drinking habits and personal contact with the results of collisions involving drinking and driving.

The attitudes to be collected deal with three areas.

- 1. Attitudes of support for strict drunk driving enforcement.
- 2. Attitudes involving the appropriateness of procedures used for processing drunk drivers.
- 3. Attitudes towards the person arrested for drunk driving and toward the dangers posed to public safety by drunk drivers.

In addition to the data collected with the questionnaire, drunk driving enforcement performance data for calendar year 1980 will be compiled for each officer that responds to the questionnaire. This collected data will be

<sup>13</sup>NHTSA (Dunlap study), pp. 151-169.

examined to identify the relationships that exist between both attitudes and enforcement, and between demographic characteristics and drunk driving enforcement performance.

## Limitations of Study

This is an exploratory study which is designed to identify selected demographic characteristics and personal attitudes of cities "A" and "B" patrol officers that are related to their drunk driving enforcement performance. While it should be possible to make accurate statements about the relationships that exist between selected characteristics and enforcement performance, and between personal attitudes and drunk driving enforcement performance, it will not be possible to identify with confidence the precise cause that is producing these relationships.

In addition, while it should be possible to accurately describe the relationships that exist in both cities' police departments, it will not be possible to generalize with confidence the findings from this study to all law enforcement agencies. Therefore, the greatest value of this study from a broad perspective may be that it should identify relationships and areas where further research appears worthwhile.

#### Definition of Terms

For the purpose of this study, operational definitions have been developed for a number of terms. The

following are the unique definitions of terms which will be used most frequently.

<u>Demographic characteristics</u>. Refers to age, sex, educational background, work experience, drinking behavior, personal experience with drunk drivers and special drunk driving training.

<u>Drunk driver</u>. Refers to the individual who perpetrates any alcohol-related traffic offense covered by the laws of this state and/or community.

<u>Drunk driving</u>. Refers to any alcohol-related traffic offense covered by the laws of this state and/or community. 14

<u>Patrol officer</u>. Refers to those police officers who are assigned to the patrol divisions of a police department.

<u>Personal attitude</u>. Refers to those mental positions that are held regarding personal beliefs and feelings and may at times differ from professional positions.

<u>Procedural attitude</u>. Refers to those mental positions that are held regarding the appropriateness or effectiveness of a process used.

<u>Professional position</u>. Refers to those positions that are taken regarding public professional positions for given issues. These professional positions at times may not coincide with personal attitudes.

<u>Support attitudes</u>. Refers to those mental positions held regarding beliefs of support or agreement of others to one's own actions.

<u>Strict enforcement</u>. Refers to a policy of enforcement where an arrest is made any time all the elements of a violation are present.

<sup>14</sup> NHTSA (Dunlap study), p. 151.

## Organization of Study

The general plan is to present this study in five chapters. Chapter two is a review of the literature related to selected personal attitudes of police officers and to selected demographic characteristics, and a review on how these attitudes and characteristics relate to enforcement behavior. The third chapter describes the urban environment of cities "A" and "B", characteristics of both cities' police departments, specific research questions to be examined, and the research design of the study. Chapter four will review the implementation of this study and report the research findings. The summary, conclusions and implications for further research will be presented in the final chapter.

#### CHAPTER II

#### REVIEW OF RELATED LITERATURE

## Introduction

A comprehensive survey of literature dealing with a comparison of demographic characteristics and personal attitudes of police officers to those officers' drunk driving enforcement performance revealed only two prior studies that have examined this area. <sup>15</sup> In addition, this review of literature revealed other pertinent studies. These related studies have been categorized and will be presented according to the following subject areas: Need for drunk driving enforcement, attitude related to behavior, and factors associated with drunk driving enforcement.

Need for Drunk Driving Enforcement. The National Highway Traffic Safety Administration in 1979 stated:

"Enforcement is the basis of the entire system for controlling drinking drivers; if the police do not detect and apprehend enough drinking drivers, the rest of the system cannot function. State and local law enforcement agencies have long considered drinking drivers are one of the most difficult problems in accident prevention and enforcement agencies have long recognized that drinking drivers are involved in a

<sup>15</sup> NHTSA (Young and Dunlap studies).

disproportional number of crashes. They are also aware that the rate of arrests and convictions for Driving While Intoxicated (DWI) is too low."16

This position that drunk driving enforcement is inadequate in relation to the problem it represents to society is not new. Robert Zylman in a 1970 article wrote:

"Drinking-driving laws in the United States are not being enforced or, at best, are being grossly under enforced." 17

It has been estimated that prior to 1970, there were nationally approximately two drunk driving arrests per uniformed police officer per year. This figure has improved very little over the last ten years. This lack of enforcement appears to be inconsistent with the problem. The National Safety Council reports:

"Drinking is indicated to be a factor in at least half of the fatal motor vehicle accidents, according to special studies. Routine accident reports do not show the same frequency of drinking, but it is believed that such reports understate the frequency, since the necessary time and equipment are not available to perform alcohol tests on all of the persons involved in accidents." 19

Underreporting may be the reason for this lower frequency

<sup>16</sup> National Highway Traffic Safety Administration, Results of National Alcohol Safety Action Projects, U.S. Department of Transportation, Washington, D.C., 1979, p. 1.

<sup>17</sup> Robert Zylman, "Are Drinking-Driving Laws Enforced?", Police Chief, Vol. 37, No. 9, Sept. 1970, pp. 48-53.

<sup>18</sup> NHTSA, Results of National Alcohol Safety Action Projects, p. 5.

<sup>19</sup> National Safety Council, Accident Facts - 1980 Edition, Chicago, Illinois, 1980, p. 52.

of reported drinking involvement in non-fatal crashes. However, this difference in frequency of alcohol involvement between fatal and non-fatal crashes may lie in the fact that alcohol-related crashes are more severe than accidents involving the driver who is not under the influence. Borkenstein's study concluded that drivers with blood alcohol levels of over .08% had more single vehicle accidents and that these accidents tended to be more severe, in terms of property damage, than crashes involving the non-drinking driver. 21

In addition to possible underreporting and the fact that drunk drivers have more severe collisions, society often responds to problems which have resulted from conflict. What the record shows and what the problem is or how large it is, may be two different things. The actual problem may be a reflection of attitude, policies and practices of police which are inconsistent with this actual problem. For example, one officer may arrest for drunk driving, while another may elect to arrest the same violator for reckless driving, while still another may

<sup>20</sup> R. F. Borkenstein and others, The Role of the Drinking Driver in Traffic Accidents, ed. Allen Dale, Purdue, Department of Police Administration, Indiana University, 1964.

<sup>&</sup>lt;sup>21</sup>Ibid.

<sup>&</sup>lt;sup>22</sup>Selden D. Bacom, "Traffic Accidents Involving Alcohol in the U.S.A.: Second-Stage Aspects of a Social Problem," Quarterly Journal of Studies on Alcohol, No. 4, May 1968.

issue a citation for speeding or may ignore the traffic violation altogether. Therefore, the problem of drunk driving in a community may show up in the records as no problem or a problem with some other related activity or issue. <sup>23</sup>

In 1979, Michigan's drinking drivers were involved in 54.2 percent of the fatal motor vehicle accidents.

This represented a 3.3 percent increase over calendar year 1978. This alcohol involvement percentage (54.2) reflects similar findings that have been reported by numerous studies over the years. 25

Haddon and Bradess examined 117 single vehicle accidents which occurred between 1950 and 1957. Their findings revealed that 49 percent of those fatally injured had a blood alcohol level of .15 percent or more at the time of death, and that an additional 20 percent were found to have had a level between .05 and .15 percent at the time of death. <sup>26</sup>

Freimuth and others also examined accidents for

<sup>23&</sup>lt;sub>Ibid</sub>.

<sup>24</sup> Michigan Department of State Police, 1979 Michigan Traffic Accident Facts, p. 5.

Berry, p. 413; Boek, p. 546; Borkenstein and others; Cassie and Allen, p. 1668; Freimuth and others, p. 65; Gerber, pp. 38-44; Havard, p. 498; Holcomb, p. 1076; Lucas and others, pp. 139-142.

<sup>&</sup>lt;sup>26</sup>W. Haddon Jr. and V. A. Brodess, "Alcohol in the Single Vehicle Fatal Accident," experience of Westchester County, New York, JAMA, Vol. 169, 1959, p. 1587.

alcohol involvement in the early 50s (1951-56). Freimuth found after reviewing some 500 consecutive highway fatalities in the city of Baltimore that 61 percent of these crashes had drivers with a blood alcohol level of .05 percent or more at the time of death. This same study showed 37 percent of the drivers had more than a .15 percent blood alcohol level at the time of death. 27

Another study in the early fifties, H. W. Smith and R. E. Popham, addressed the question of alcohol involvement in vehicular collisions. These two researchers surveyed 919 Toronto drivers who had been involved in personal injury motor vehicle accidents. They then independently assigned responsibility for the collisions surveyed on the basis of a 10-point scale. In comparing drinking and non-drinking drivers' responsibility for these 919 crashes, they found that a driver at .15 percent blood alcohol level or higher was responsible for the crash some 43 times more often than the non-drinking driver. 28 Borkenstein found similar findings in one of his studies. He reported, a person who drives with a blood alcohol level of .10 percent has a six times greater chance of causing an accident, while a person who operates with a blood alcohol level of .15 percent, was found to

<sup>&</sup>lt;sup>27</sup>Freimuth and others, p. 65.

<sup>&</sup>lt;sup>28</sup>H. Ward Smith and R. E. Popham, "Blood Alcohol Levels in Relation to Driving," <u>Canadian Medical Association Journal</u>, Vol. 65, 1951, p. 326.

have a 25 times greater chance of causing an accident than that of a sober driver.

In 1961, Cassie and Allen examined 574 hospitalized traffic accident victims. They found that one-third of all highway accident victims that were hospitalized after midnight had a blood alcohol level over .10 percent. They concluded from this study that alcohol is a factor in many accidents requiring hospitalization. In addition, the preponderance of traffic accidents is related to the time during which alcoholic beverages are sold. Lastly, Cassie and Allen concluded that there is an increasing percentage of unsafe drivers during this period of time. 29

While there is no conclusive evidence, there is general agreement that reduction in aberrant or unsafe driving behavior will cause a reduction in traffic accidents and that enforcement of traffic laws does result in some decline in unsafe driving. 30

Personal attitudes and selected demographic characteristics of a police officer certainly influence a police officer's decisions relating to drunk driving encounters. 31 For, "All of our actions are influenced to some degree by

<sup>&</sup>lt;sup>29</sup>Cassie and Allen, p. 1668.

<sup>30</sup> J. E. Wilson, "Selective Traffic Enforcement Program (STEP)," U. S. Department of Transportation, National Highway Traffic Safety Administration, Washington, D.C., February 18, 1971, p. 2.

<sup>31&</sup>lt;sub>NHTSA</sub> (Young study), p. 2.

our personal bias and attitudes. The police officer, no matter how well trained, has still been conditioned and is influenced by his personal experiences." 32 John Oates writes:

"...the officer may exercise discretion in the assignment. That is, he may elect to find an alternative to making the arrest, e.g. by ticketing the driver on a lesser charge, arranging for his safe transportation home, or simply allowing him to go. The degree of discretion exercised might depend upon the officer's knowledge of and attitudes toward alcohol and drinking-driving, and might be a function of the circumstances of the incident and/or the characteristics of the suspect." 33

Michigan's 1971 "Governor's Task Force on the Drinking-Driving Problem" not only recognized the need for strong countermeasures to combat the problems associated with drinking and driving, but they recognized the need for an accurate understanding of the role that police officers' attitudes and characteristics play in any effective countermeasure. The eleventh recommendation of this task force's report reads as follows:

"That any proposed countermeasure programs should include provisions for a study of the attitudes and practices of Police.... If, in fact, it is found that there are important differences between what is believed and practiced and what the law permits or requires of them, efforts must first

<sup>&</sup>lt;sup>32</sup>Ibid., p. 25.

<sup>33</sup>NHTSA (Dunlap study), p. 2.

<sup>34</sup> Richard Dann and others, Governor's Task Force on the Drinking Driver Problem, Interim Report, Feb. 1, 1971.

be directed toward correcting the second stage of the problem." $^{35}$ 

(The "second stage of the problem" being the existence of conflicting attitudes and characteristics that negatively influence an officer's enforcement decisions.)

Attitudes Related to Behavior. The degree of relationship between attitudes and behavior continues to be investigated and debated. <sup>36</sup> However, studies have demonstrated that high correspondence between measured attitudes and behavior can be expected, given that several methodological conditions are fulfilled. First, the attitude to be measured should be specific rather than general in order to maximize the credibility of any study. <sup>37</sup> Secondly, a particular attitude should be measured using a multi-item instrument constructed according to a replicable set of procedures. <sup>38</sup> Lastly, behavioral measure or index should

<sup>&</sup>lt;sup>35</sup>Ibid., p. 23.

<sup>&</sup>lt;sup>36</sup>Pamela K. Poppleton and G. W. Pilkington, "A Comparison of Four Methods of Scoring an Attitude Scale in Relation to Its Reliability and Validity," <u>British Journal of Social and Clinical Psychology</u>, Vol. 3, 1964, pp. 36-39; and Lawrence S. Linn, "Verbal Attitudes and Overt Behavior: A Study of Racial Discrimination," <u>Social Forces</u>, Vol. 43, 1965, pp. 353-364.

<sup>37</sup>Linn, pp. 353-364; and Melvin L. Defluer and Frank R. Westie, "Attitude as a Scientific Concept," Social Forces, Vol. 42, 1963, pp. 17-31.

<sup>38</sup> Leon Festinger and Daniel Katz, Research Methods in the Behavioral Sciences, Chicago, Ill., 1953; and Lee J. Cronbach, Essentials of Psychological Testing, 2nd edition, New York, Harper and Row Publishers, 1960, pp. 130-131.

refer to acts indicative of consistent or patterned actions. 39

Campbell theorized, if attitudes are cognitive and effective organizations derived from the normal socialization processes, it seems reasonable to assume that the correspondence between attitudes and behavior will be highest in those situations in which the individual has come to define as normal. Therefore, attitude measures should be most predictive of behavior in situations which occur repetitively within the common behavioral context of the individual. Others support this theory that attitude-related judgment or perception is inextricably an affective-motivational as well as a cognitive affair. At McKeachie theorizes attitudes are organization concepts, beliefs and motives associated with a particular object.

Factors Influencing Drunk Driving Arrests. In
1974, the National Highway Traffic Safety Administration

<sup>39</sup> Daniel Katz and Ezra Stotland, "A Preliminary Statement to a Theory of Attitude Structure and Change," ed. Sigmund Koch, Psychology: A Study of a Science, Vol. 3, New York, McGraw-Hill, 1959.

<sup>40</sup> Donald T. Campbell, "Social Attitudes and Other Acquired Behavioral Dispositions," ed. by Sigmund Koch, New York, Psychology: A Study of a Science, McGraw-Hill, 1963.

<sup>41</sup> Carolyn W. Sherif, Muzafer Sherif and Rodger E. Nebergall, Attitude and Attitude Change, Philadelphia, W. B. Saunders Company, 1965.

<sup>42</sup>W. J. McKeachie and Charlotte L. Doyle, Psychology, Reading, Mass., Addison Wesley Publishing Company, Inc., 1966.

(NHTSA) published two studies which examined influencing factors associated with drunk driving arrests. These two studies, funded under contract with NHTSA, were conducted by Arthur Young and Company, "Factors Influencing Alcohol Safety Action Project Police Officer's DWI (Driving While Intoxicated) Arrests," and Dunlap and Associates, Inc., "Factors Influencing Arrests for Alcohol Related Traffic Violations." 44 A review of these two studies follows.

The Young study was conducted on the premise that "police officer's personal attitudes and motivations as well as the political and sociological climate of his community certainly influences a police officer's decision relating to DWI encounters." And that, "little attempt has been made to identify and document the variables which influence an officer's discretion and the degree of influence which each variable exerts as a basis for improving the probability that a drinking driver will be identified through the law enforcement process." 46

The purpose of the Young study was to determine:

1. The factors which influence an officer in making a decision to arrest for drunk driving when he has reasonable cause to believe such a charge would be warranted and to determine the degree of influence of each of these in the officer's decision.

<sup>43</sup>NHTSA (Young study).

<sup>44</sup> NHTSA (Dunlap study).

<sup>45&</sup>lt;sub>NHTSA</sub> (Young study), p. 2.

<sup>46</sup> Ibid., p. 3.

- 2. The frequency of the incident of police decision making in drunk driving enforcement.
- 3. Approaches to minimize the influence of those factors which might tend to constrain the arrest of persons who appear to be driving under the influence of alcohol and to augment those factors which might support a positive decision to arrest.<sup>47</sup>

The Young study attempted to meet these objectives by conducting field interviews in 15 undisclosed Alcohol Safety Action Project (ASAP) communities around the United States. These interviews involved both ASAP and non-ASAP assigned police officers, their supervisors, police administrators, court officials, prosecutors, public defenders, ASAP officials, city officials, members of the public media and concerned citizens. The major focus of this study revolves around interviews with 85 ASAP assigned police officers and 21 non-ASAP assigned police officers. Supervisors from the police departments were usually responsible for the assignment of officers to be interviewed.

Young and Company developed a survey instrument that was designed to structure the data gathering activities. This "questionnaire" was not to be completed by the respondents.  $^{50}$ 

The officers surveyed were asked to self-evaluate

<sup>47&</sup>lt;sub>Ibid</sub>.

<sup>&</sup>lt;sup>48</sup>Ibid., p. 8.

<sup>&</sup>lt;sup>49</sup>Ibid., p. 12.

<sup>&</sup>lt;sup>50</sup>Ibid., p. 6.

what influence they felt a given attitude had on their decision-making process involving drunk driving arrests. For example, a respondent was asked, "Do your drinking habits affect your decisions relating to drunk drivers?" For those who gave a response equivalent to yes, the interviewer was then asked to determine what effect, either positive or negative, this influence had on arrest decisions. A positive effect meant the respondent would be inclined toward arrest, while a negative effect meant he would be more flexible in his decision. Once this was done, the respondent was asked to self-evaluate the degree to which it was felt his or her arrest/no arrest decision was affected. The interviewer assigned this response to "significant," "moderate" or "marginal." "Significant" was defined as responses that indicated the factor exerted a great influence; "moderate" was reserved for responses that indicated the factor exerted a limited influence; while "marginal" was reserved for responses that indicated little or no influence.  $^{51}$  No attempt was made to explain why an interviewer would check a factor had an "effect," and subsequently describe the degree of effect as having "no influence."

Lastly, the respondent was asked to self-evaluate how often he or she felt their personal drinking habit was a factor in a decision involving a drunk driving arrest.

<sup>&</sup>lt;sup>51</sup>Ibid., p. 24.

The interviewer assigned this response to "most," "many" or "some." "Most" was defined as the factor which was involved in a "major portion" of the officer's drunk driving arrest decisions; "many" indicated "numerous decisions" were affected, while "some" indicated the factor affected "very few" of the respondent's decisions. 52

The degree of influence that any given factor has on drunk driving arrest decisions was established with the "Delphi" approach. 53 No attempt was made by the Young study to relate actual drunk driving enforcement performance to any of the factors under consideration. However, interviewers were asked to judge whether officers were "rigid" or "flexible" in their drunk driving enforcement. While these judgments served as a major part of several conclusions, they were "not based upon the officer's arrest activity nor on answers to specific questions." But rather, these judgments were based upon a field ride for "several hours" with the respondent and on the officer's responses to unidentified questions and other unidentified "indices" obtained during conversation with the officer. 54

In addition to the officers interviewed, supervisors were interviewed to determine what they believed the attitudes and beliefs of their subordinates would be to

<sup>&</sup>lt;sup>52</sup>Ibid., p. 24.

<sup>&</sup>lt;sup>53</sup>Ibid., p. 4.

<sup>&</sup>lt;sup>54</sup>Ibid., p. 16.

given questions. The supervisors' interviews involved a modified version of the officers' questionnaire. <sup>55</sup> Often the supervisors' responses were in direct conflict with the positions given by the officers.

The interviews with the other respondents, i.e. courts, prosecutors, administrators, ASAP officials and others, were designed to meet the following objectives: 56

- to provide a definition of the agency's role in the ASAP program.
- to define the policy of the agency toward drunk driving enforcement.
- 3. to identify the attitude of the agency toward drunk driving enforcement.
- 4. to define the relationship between the officers and the agency and what, if any, impact this has on the agency.
- 5. to identify any change in policy and/or attitude toward drunk driving enforcement attributable to ASAP.
- 6. to identify the agency's perception of the factors that influence a police officer's drunk driving decisions.
- 7. to make any recommendations or provide solutions to problems between the agency and the police officer.

The Young study isolated 53 influencing factors that they believed had to some degree an influence on an officer's drunk driving enforcement decision. The factors were then grouped into five areas. 57 These factors will

<sup>&</sup>lt;sup>55</sup>Ibid., p. 6.

<sup>&</sup>lt;sup>56</sup>Ibid., p. 7.

<sup>&</sup>lt;sup>57</sup>Ibid., pp. 22-99.

now be presented along with a review of the major findings and conclusions reached by Arthur Young and Company's study.

# 1. Personal Factors 58

- (1) Drinking Habits: While approximately twothirds of the officers thought fellow officers' drinking
  habits had an influence on drunk driving arrest decisions,
  nearly ninety percent did not feel their personal drinking
  habits influenced their arrest/no arrest decisions.
- (2) Attitude Toward Drunk Drivers: Exposure to drunk drivers tends to make officers stricter enforcers of drunk driving laws.
- (3) Severity of Punishment: Attitudes concerning the severity of punishment for drunk driving does not affect enforcement decisions.
- (4) Deterrent Value of Drunk Driving Enforcement: While officers recognize the fact that strict enforcement does prevent many persons from drinking and driving, only approximately fifty percent of the officers considered the deterrent value of the arrest in decisions relating to drunk driving enforcement.
- (5) Officers Drunk Driving Enforcement Training:
  Seventy percent of the officers felt specialized drunk
  driving enforcement training had improved their overall
  enforcement skills. However, changes in personal attitudes
  towards drunk driving enforcement caused by such training

<sup>&</sup>lt;sup>58</sup>Ibid., pp. 25-40.

was noted by less than forty percent of those surveyed.

- (6) Officer's Attitude Toward ASAP: Officers displayed little understanding of the scope of ASAP. The Young study concluded this lack of understanding generated a negative influence on the officer's arrest/no arrest decisions concerning drunk drivers.
- (7) Traffic Accident Investigation: A strong majority of those surveyed believed traffic accident investigation experience was a positive inducement to drunk driving enforcement.
- (8) Officer's Confidence: Lack of officer's self-confidence has a negative influence on an officer's drunk driving enforcement performance.

# 2. <u>Driver Related Fac</u>tors 59

- (1) Attitudes of the Suspect: Since drunk driving is usually a "victimless" crime, the officers feel perfectly justified in judging if the violator "should" be arrested based on factors other than the degree of intoxication.
- (2) Social or Political Status of the Drunk
  Driver: Where the officers did not receive support, or
  were operating without any clearly defined policy, they
  exercised a great deal of discretion which was often
  negative in respect to enforcement.

<sup>&</sup>lt;sup>59</sup>Ibid., pp. 40-54.

- (3) Age of the Suspect: Age of a suspected drunk driver is not a significant or prominent factor influencing an officer's arrest decisions, but was found to constrain some officers' drunk driving enforcement performance.
- (4) Sex of Suspect: Male officers dislike processing the arrests of female suspects. However, respect for women does not appear to play a significant role in the officers' arrest decisions.
- (5) Suspect is a Social/Problem Drinker: Because of the officers' general inability to accurately determine the nature of a suspect's prior drinking behavior, the Young study concluded the degree or frequency of influence by this factor was inconclusive.
- (6) Licensed Driver with Suspect: Just over half of the officers felt their arrest/no arrest decisions were influenced by this factor. When an officer is presented with an immediately available alternative to arrest, the officer will generally take advantage of it.
- (7) Suspect Stopped Close to Home: Over sixty percent of ASAP officers indicated this factor played no part in their enforcement effort. However, seventy-one percent of the non-ASAP officers reported this factor does influence their arrest decisions. As a result, the Young study did not attempt to make a conclusive statement on the effect of this factor.
- (8) Other Driver Related Factors: Officers will at times release without any charge for the following

#### reasons:

- On a busy night, simply hid keys so as not to be tied up with the arrest.
- Hard luck stories, i.e. lost job, domestic problems.
- Can see no value of this particular arrest, i.e. boy scheduled to go into the service the next day.
- Family was in car with suspect, wanted to avoid embarrassment for suspect.

# 3. Operational Factors 60

- (1) Degree of Good/Bad Driving by Suspect: Over three-fourths of the officers indicated this factor had an effect on their arrest/no arrest decision. The more serious the quality of driving becomes, the more positive the influence of this factor.
- (2) Degree of Intoxication of the Suspect:
  Approximately seventy percent of the officers believe this factor influences their arrest decisions.
- (3) Time Required to Process the Suspect: Over seventy percent of the officers reported this factor did not influence their arrest/no arrest decisions.
- (4) Structured Arrest Processing Procedure: A large number of the ASAP officers (68%) felt their arrest/no arrest decisions were not affected by a structured processing procedure, while over one-half of the non-ASAP officers believed this made them more affirmative in their

<sup>60</sup> Ibid., pp. 55-75.

arrest/no arrest decision.

- (5) Prior Arrest Made During Officer's Duty Tour:
  The Young study concluded this factor had little or no
  effect on the officer's arrest/no arrest decision.
- (6) Suspect Stopped Late in Shift: Approximately two-thirds of the officers indicated this factor had no influence in their arrest/no arrest decisions. However, of those who reported an effect, stopping a drunk driver late in the shift has a demonstratively negative effect on those officers' decisions relating to arrest.
- (7) Frequency of Court Appearance: Well over three-quarters of the officers believed the frequency of court appearances had no influence on their arrest/no arrest decision. Young concluded the time spent in court had little or no effect on the officers. This study attributed this minor effect to the fact that most respondents indicated they were either paid overtime or received compensatory time off for their appearances.
- (8) ASAP Duty Hours: Since ASAP hours involved late evening and early morning tours of duty, Young concluded the hours are a grueling test of endurance that affects the officers' family relationships, health and morale.
- (9) One and Two-Man Patrol Units. Two person units double the discretion that accompanies drunk driving arrests; for if one of the officers objects to the arrest, the suspect generally is not charged.

- (10) ASAP Patrol Area Selection: A police officer's arrest/no arrest decision relating to drunk drivers often is affected by the area he is assigned to patrol. If officers are assigned to areas where the incidence of drunk driving encounters is low, this may lessen the officer's enforcement.
- (11) ASAP Officer Patrol Techniques: The techniques officers employ in spotting possible drunk drivers on the road has a direct influence on the officers' enforcement performance.
- (12) Volunteers for ASAP vs. Conscripted Officers: The circumstances surrounding an officer's presence on ASAP duty does have an impact on an officer's arrest/no arrest decision. Officers who are "drafted" for ASAP assignments usually do not share the commitment that is associated with positive enforcement performance.
- (13) Informal Competition Between Officers: Where informal competition existed between officers, morale was generally higher, interest in drunk driving enforcement was good, and the level of enforcement, as measured by the number of arrests, was high.
- (14) Relationship Between ASAP Staff and Police Officers: Generally many officers lack a clear understanding of the scope and purpose of the overall ASAP effort and are distrustful of the rehabilitation countermeasures. Young concluded this does not motivate many officers to be positive drunk driving enforcers.

- (15) Equipment and Facilities: The equipment the ASAP officers must use, or the facilities that comprise the officers working conditions, does have an effect on the officers' arrest/no arrest decision relating to drunk driving. Shoddy or malfunctioning equipment, or cramped or inconveniently located testing facilities, will have a negative influence on enforcement performance.
- (16) Community Social Conditions: Generally it was found police are hesitant to make arrests in areas where certain racial or socio-economic groups are concentrated because the officers fear violence or political consequences in response to their enforcement activities.

## 4. Department Factors 61

- (1) General Level of Morale in the Enforcement Agency: The Young study concluded that department and group morale influences their arrest/no arrest decisions. In low morale situations, where drunk driver contact was avoided, public safety was threatened, and the potential of achieving the objectives of countermeasure programs was minimized.
- (2) Level of Morale Among ASAP Officers: High morale has a positive influence on an ASAP officer and exerts a significant degree of influence in most of the officer's decisions relating to drunk driving.
  - (3) Attitudes of Other Officers: Officers

<sup>61</sup> Ibid., pp. 75-88.

indicated that the attitudes of other officers toward drunk driving arrests does not have an effect on their decisions relating to drunk driver encounters.

- (4) Standards of Performance: Eighty-four percent of the ASAP officers and ninety-two percent of non-ASAP officers responded that this factor had no effect on their enforcement performance.
- (5) Policy of Officer's Supervisor: A large majority of the officers felt their supervisors' policy had no effect on their arrest/no arrest decisions.
- (6) Department Policy: Survey results indicated that the officers did not feel that department policy, or lack of it, had any appreciable effect on their decisions relating to drunk driving.
- Highway Patrol officers were more militaristic and rigid in their enforcement activities. They placed heavy emphasis on drunk driving enforcement. City police officers were reported to be much more flexible in dealing with drunk driving problems and related the importance of this law enforcement activity to other enforcement activities. The Young study concluded that sheriffs and small town officers tended to be more politically aware, and that this political/social factor appeared to have greater influence on their arrest/no arrest decision.
- (8) Strength of Supervision: The strength of supervision an ASAP officer receives has a definite

influence on an officer's arrest/no arrest decision.

Officers who performed without strong supervision often were inconsistent enforcers, were affected more strongly by influencing factors and suffered from low morale.

(9) Isolation of ASAP Officers: Many ASAP officers felt isolated from their families, their department and the community. The reasons for this were the late night hours the officers had to work, the specialized training they received, the specialized equipment they were issued, and the fact that drunk driving enforcement was an activity considered unpleasant by other officers.

## 5. Outside Influences 62

- (1) Court Support of Drunk Driving Enforcement:
  Officers were almost evenly divided as to the level of
  support they felt the courts gave drunk driving enforcement.
  However, a large number of the officers felt court support
  had no effect on their arrest/no arrest decisions.
- (2) Faith in Court Justice: Officers' lack of faith in court justice tended to reduce the officers' drunk driving enforcement effort. The Young study reported some officers became discouraged by the actions of the court and reduced drunk driving enforcement activities, while others tried harder to build better cases against their suspects.
  - (3) Support of Local Prosecutor: Officers gave

<sup>62</sup> Ibid., pp. 88-99.

prosecutors high ranks for their support of the drunk driving enforcement activities. However, seventy percent of the officers reported prosecutor support had no effect on their arrest/no arrest decision.

- (4) Community Attitudes and Support: Officers reported public support had no influence on their arrest/ no arrest decisions. The Young study concluded this relationship was due to the fact that many officers had no concept of what the public's attitude was toward drunk driving enforcement.
- (5) Legality of ASAP Countermeasurements: No quantifiable measurements were taken to determine the effect of the variable. However, the Young study reported that police attitudes were negatively affected by plea bargaining by the court.
- (6) Weather: While bad weather conditions may not affect an officer's enforcement attitude, bad weather will limit an officer's drunk driving enforcement contacts and in this manner may negatively affect enforcement performance.

The Dunlap study, like the Young research, was conducted in 1974. This study's objectives were:

- 1. "to identify and gauge the importance of factors influencing police officers' alcohol related arrests -- either positively or negatively -- with emphasis on those factors that involve the exercise of discretion."
- 2. "to determine appropriate remedial actions that can decrease the influence of negative factors and increase the influence of positive

factors so that a higher proportion of individuals guilty of alcohol related violations will be arrested on that charge."

Eleven sites from around the United States were surveyed in an attempt to meet the above objectives. While the specific site locations were not identified, the study reported these sites consisted of two state police forces, two highway patrols and seven municipal departments of varying sizes. An attempt was made to avoid areas where ASAP (Alcohol Safety Action Projects) had been implemented or where similar projects had been or were being conducted. <sup>64</sup>

The major scope of the Dunlap study revolved around the data compiled from the following groups at the selected sites:  $^{65}$ 

- 2. Police supervisors -- 74 questionnaires
- 3. Judicial personnel -- 12 Judge's questionnaires 14 Prosecutor's questionnaires
- 4. Civic officials -- 6 questionnaires

The questionnaires used were designed to examine twenty-six factors that Dunlap and Associates had elected

<sup>63&</sup>lt;sub>NHTSA</sub> (Dunlap study), p. 2.

<sup>64</sup> Ibid., p. 3.

<sup>65</sup> Ibid., p. 5

to study. These twenty-six factors were grouped into four areas: 66

- 1. Officer's Background
- 2. Officer's General Attitude
- 3. Incident Specific Variables
- 4. Local Environment Variables

The Dunlap study then analyzed the individual factors from within these areas to determine the relationship they held with enforcement performance. This analysis consisted of a comparison of arrest performance (officers' estimate of the number of drunk driving arrests they made in a one-year period) to the individual factor examined.

Officers' responses to each question and categorized into four levels of enforcement. These levels of enforcement were:

- 1. 0 to 1 arrest per year
- 2. 2 5 arrests per year
- 3. 6 15 arrests per year
- 4. 16 or more arrests per year

All other areas, other than "ficer's Background" responses, were recorded on a Likert Scale in an attempt to determine the degree of strength the opinion held. The Likert Scale used consisted of seven opinions: 68

- 1. Strongly Agree
- Mostly Agree
- 3. Somewhat Agree
- 4. Neutral
- 5. Somewhat Disagree

<sup>&</sup>lt;sup>66</sup>Ibid., p. 9.

<sup>67</sup> Ibid., p. 6.

<sup>&</sup>lt;sup>68</sup>Ibid., p. 14.

- 6. Mostly Disagree
- 7. Strongly Disagree

Therefore items that solicited a response on the Likert Scale were examined as to the strength of the attitude held in relation to the level of enforcement performance.

Using the Methodology described, the Dunlap study examined the relationship between each of the 26 factors selected and enforcement levels. The major findings and conclusions are presented as follows:

## 1. Officer's Background 69

- (1) Age and Experience: The younger, less experienced, patrolmen consistently logged more arrests for drunk driving than did their elders or those with more seniority. This result was found to hold true regardless of the type of department in which the officer served or the specific type of duty to which the officer was assigned.
- (2) Personal Use of Alcohol: An officer's personal use of alcohol was inversely related to his level of drunk driving enforcement. Officers who drink made significantly fewer arrests than those officers who did not use alcohol, and those who drank frequently made significantly fewer arrests than those who used alcohol only occasionally.

<sup>69</sup> Ibid., pp. 47-54.

- (3) Knowledge of Statutes Relating to Drunk
  Driving Violations: There was no evidence that an officer's knowledge of the law had any effect, positive or negative, on his or her enforcement effort involving drunk driving. Dunlap concluded that any effort to improve officers' familiarity with the legal terminology could not therefore be expected to produce much benefit in terms of increased arrest rates.
- (4) Awareness of Relationship between Alcohol and Intoxication: Lack of officer's knowledge concerning the relationship between alcohol and intoxication was widespread and imparted a negative influence on drunk driving enforcement. Most officers underestimated, often by a wide margin, the amount of alcohol a suspect would have to consume in order to achieve the statutory limit of blood alcohol concentration set for drunk driving. This lack of understanding seemed to induce a tendency among many officers to identify and sympathize with suspects they encountered.
- (5) Relevant Training: Specialized training had a strong positive influence on drunk driving arrests.

  Officers who had received instruction in the operation of breath testing devices and/or drunk driving investigation techniques made significantly more arrests than those who had not received this type of specialized training.
- (6) Duty Assignment: Specialization in duty assignment did not significantly enhance drunk driving

enforcement. However, officers assigned to traffic divisions, in particular, tended to produce higher arrest rates than officers charged with general patrol duties.

(7) Education: No conclusive relationship was found between education status and drunk driving enforcement levels. It was found that officers who held college degrees tended to make slightly fewer arrests than those who had not completed college.

## 2. Officer's General Attitudes 70

- officer's perception of the Drunk Driving Problem: An officer's perception of the importance of drunk driving enforcement affected the officer's arrest/no arrest decisions. Significant differences in officers' perceptions of the seriousness of the drunk driving problem were found between "low" and "high" enforcers. However, there was little or no evidence that these differences stemmed from any lack of awareness of the causal role of drinking and driving in highway accidents. Rather, some officers seemed to believe that drunk driving enforcement, while important, was no more so than many other duties they faced. Therefore, they did not devote special emphasis to this enforcement. Conversely, the "high" enforcers tended to be those who believed the offense warranted high priority.
- (2) Attitude toward the Drunk Driver: A generally sympathetic attitude toward drunk drivers was held by a

<sup>&</sup>lt;sup>70</sup>Ibid., pp. 55-70.

substantial proportion of police officers. This attitude had a negative impact on arrests. It was found that many officers believed that practically anyone who drinks will violate the drunk driving laws on occasion, and that a driver need not be very intoxicated in order to be guilty of this offense.

- (3) Perception of Suitability of Drunk Driving Penalties: Officers' perceptions of the appropriateness of penalties for drunk driving violations has a bearing on the officers' level of enforcement. "High" enforcers tended to believe these penalties were insufficiently severe, while "low" enforcers seemed more concerned over the effect these penalties would have on a suspect and his livelihood.
- Arrests: The general attitude toward alternatives to drunk driving arrest exerted an important influence on arrest/no arrest decisions. "Low" enforcers were consistently more willing to choose alternatives to arrest than were the "high" enforcers. Many low enforcers would make an arrest only if no other alternative was available, at least in borderline situations. Officers would frequently avoid arrest if a licensed passenger was available to drive the vehicle. This alternative was chosen by two-thirds of those surveyed.

## 3. <u>Incident - Specific Variables</u><sup>71</sup>

- (1) Time of Day and Duty Tour: Near the end of the duty shift, drunk driving enforcement decreased substantially. This was particularly true in departments that had adopted relatively time-consuming procedures for processing drunk drivers. This fact had an especially important effect on the arrest/no arrest decision since the evening shift typically terminated during the peak time period of drunk driving violations.
- (2) Suspect's Degree of Intoxication: This fact was found to have a strong influence on arrest/no arrest decision involving drunk drivers. "Low" enforcers in particular would often avoid the arrest if the suspect seemed only "slightly" too intoxicated to drive legally. Only suspects that appeared to be a good deal above the legal presumptive limit were likely to be arrested late in a shift.
- (3) Weather Conditions: Foul weather had a positive influence on the attitude of many officers. They were more appreciative of the risk posed by a drunk driver when driving conditions were hazardous, and less likely to avoid the arrest when weather conditions were bad. However, foul weather also tended to increase the difficulty of detecting drunk drivers and created additional demands on officers' time and attention.

<sup>&</sup>lt;sup>71</sup>Ibid., pp. 70-91.

- (4) Suspect's Attitude: The suspect's attitude at times had a strong influence on the arrest/no arrest decision. If the suspect proved uncooperative or argumentative, a positive influence for arrest resulted.

  Conversely, the likelihood of arrest decreased when the suspect seemed cooperative.
- (5) Suspect's Sex, Age and Race: Officers seemed more reluctant to arrest women for drunk driving, largely because processing a female arrestee is generally more complex and time consuming. Also, officers were significantly more prone to release suspects under the age of 30 years. Lastly, race of the suspect was found to be a key distinguishing characteristic in drunk driving cases.

  Officers seemed more willing to initiate an investigation when the suspect was not of their own race.
- (6) Accidents Involving Drunk Driving: Accident involvement had a strong positive influence on an arrest/no arrest decision. The occurrence of an accident tended to decrease both the opportunity to exercise discretion and the officer's willingness to ignore the violation. However, if the suspect was injured in an accident, the likelihood of arrest at times decreased.
- (7) Involvement of Other Traffic Violations: The involvement of another violation seemed to have little or no impact, per se, on the arrest/no arrest decision. However, to some degree, suspects who committed flagrant, dangerous violations were considered by some officers as

"accidents about to happen," and often were dealt with in a fashion similar to accident-involved suspects.

(8) Suspect's Position in the Community: When a suspect was personally known to the investigating officer, a strong negative influence for arrest resulted. The same was generally true when the suspect was a prominent member of the community.

## 4. Local Environment Variables 72

- (1) Court Disposition Records: Court disposition of drunk driving cases had a generally negative influence on officers' arrest/no arrest decision. "Low" enforcers had significantly more of their arrests fail to lead to convictions than "high" enforcers.
- (2) Department Policy Concerning Drunk Driving Enforcement: Drunk driving policies at times had a strong influence on officers' arrest/no arrest decision. When the supervisor manifested a desire for rigid enforcement, his patrolmen produced fairly high arrest rates. Conversely, if the supervisor seemed less concerned about drunk driving enforcement, the number of arrests was generally low.
- (3) Magnitude of Other Law Enforcement Problems:
  Dunlap's study concluded that other enforcement duties did
  detract somewhat from drunk driving enforcement efforts.
  However, this is essentially a characteristic of large
  municipal departments which may in part be due to lower

<sup>&</sup>lt;sup>72</sup>Ibid., pp. 91-111.

incidence of specialized training for drunk driving among municipal officers.

- (4) Drunk Driving Arrest Processing Requirements: Processing procedures for drunk driving had a major impact on enforcement levels. Officers serving in departments in which procedures were complex and time-consuming produced fewer arrests, were more negative towards enforcement and were more reluctant to make such arrests, especially near the end-of-shift.
- (5) Types of Chemical Tests: "High" enforcers seemed more convinced of the accuracy of chemical tests than did "low" enforcers. However, there was no evidence that dissatisfaction or mistrust of chemical test procedures deterred drunk driving arrests, nor that satisfaction with these tests had any positive influence for arrests.
- (6) Community Pressure: Neither public nor official opinion concerning drunk driving presently contributes any notable influence over arrest/no arrest decisions. Most officers failed to sense either strong support or strong opposition among the public to drunk driving enforcement. Dunlap reported that what was evident was the little communication regarding drunk driving between officers and the public they served or the agencies with which they interacted.

### Summary and Conclusions

Numerous studies report the act of drinking combined with driving is a factor in approximately half of the fatal motor vehicle accidents. The U.S. Department of Transportation's National Highway Traffic Safety Administration has concluded: "Enforcement is the basis of the entire system for controlling drinking drivers."

While strict enforcement has been recognized as an effective countermeasure for dealing with drunk driving, there is general acceptance that drinking-driving laws in the United States are not being adequately enforced.

One of the major reasons drunk driving laws are underenforced is due to the conflict that often exists between an officer's personal beliefs and varied background characteristics and that officer's drunk driving enforcement responsibilities. Recognizing this fact, a Michigan "Governor's Task Force on the Drinking-Driving Problem" recommended that there is a need for understanding the role that attitudes and characteristics of police officers play in any effective countermeasure for dealing with drunk driving.

A review of literature suggests that a high correspondence between measured attitudes and behavior can be expected, given that several methodological conditions are fulfilled:

1. The attitude to be measured should be specific rather than general.

- 2. The attitude should be measured using a multi-item instrument constructed according to a replicable set of procedures.
- 3. Behavioral measure or index should refer to acts indicative of consistent or patterned actions.

Two earlier studies have been conducted to examine the relationship of police officers' attitudes and individual characteristics to those officers' drunk driving enforcement performance. While these studies develop similar findings and conclusions in some areas, they were in conflict in others. For example, the Young study reported ninety percent of the officers did not feel their personal drinking habits influenced their arrest/no arrest decisions, while the Dunlap study concluded that personal use of alcohol by an officer was inversely related to that officer's level of drunk driving enforcement. The Young study concluded that severity of punishment as perceived by an officer does not affect enforcement decisions, while the Dunlap study concluded an officer's perceptions of the appropriateness of the penalties does have a bearing on an officer's level of enforcement. The Young study concluded age of the suspect is not a significant or prominent factor influencing an officer's arrest decision, while the Dunlap study found officers release persons under 30 years of age a significantly more number of times.

These are only a few of the inconsistencies that were reviewed in this chapter. As stated in "The Problem" found in Chapter I, there is a lack of understanding as it

relates to the relationships that exist between police officers' selected demographic characteristics and personal attitudes, and those officers' drunk driving enforcement performance.

#### CHAPTER III

#### DESIGN OF STUDY

The purpose of this study was to identify those personal attitudes and selected demographic characteristics of police patrol officers from two Midwest communities (Cities A and B) that are related to these officers' drunk driving enforcement levels.

City A: City A is a community with a population of approximately 127,000 persons. The covers a land area of 33.92 square miles with 302 miles of local streets, 101 miles of major highways and 32 miles of State trunk lines. The city has seven Class "B" hotel liquor licenses along with seventy-eight Class "C" liquor licenses, both of which provide for on-premise consumption.

City A makes use of a strong mayor/council form of government. The mayor is elected by the city "at large" for a four-year term. The city's council is also elected for four-year terms; four members are elected at

<sup>73</sup>U.S. Department of Commerce, Population Estimates and Projections, Bureau of the Census Series P-25 No. 835 Issue, Nov. 1979, pp. 8-10.

<sup>74</sup>Record as provided from Planning Department,
City A, 3-8-81.

large along with one member from each of the city's four wards. 75

The city's police department is responsible to the mayor for provision of police service to the community.

In addition, the city maintains an eight member "Board of Police Commissioners." Members of the Board are appointed by the mayor with the advice and consent of the city council. The city's charter provides this Board with the following authority and duties. 76

- 1. The board shall establish administrative rules for the organization and overall administration of the department including promotional and training procedures in consultation with the Chief of Police and Mayor.
- The board shall approve rules and regulations for the conduct of the members of the Department, in consultation with the Chief of Police and Mayor.
- 3. The board shall establish a procedure for receiving and resolving any complaint concerning the operation of the Department.
- 4. The board shall review and approve the departmental budget before its submission to the Mayor.
- 5. The board shall act as the final authority of the City in imposing or reviewing discipline of the Department employees consistent with the terms of State law and applicable collective bargaining contracts.

In calendar year 1980, the city's police department fluctuated between 278 and 287 sworn officers.

<sup>75</sup> City Charter of City A, Article 2, Chapter 1, 2-101.2.

<sup>&</sup>lt;sup>76</sup>Ibid., Article 5, Chapter 3, 5-301.2-7.

Approximately 120 of these officers were assigned to the "Uniform Patrol Bureau," while the remaining officers were assigned to other responsibilities within the Department. The "Patrol Bureau" is responsible for both general police duties and traffic enforcement activities. Included among the bureau's traffic activities is drunk driving enforcement. In calendar year 1980, the city's police department arrested 466 drunk drivers. 78

City B: City B abuts City A's eastern border.

It has a population of approximately 51,000<sup>79</sup> persons and covers a land area of 8.99 square miles. The city maintains 55.03 miles of local highways, along with 20.34 miles of State trunk lines. In 1980, City B had a total of twenty-seven licensed drinking establishments, one Class "B" hotel, twenty-one Class "C" and five Tavern licenses.

City B makes use of a city manager form of government. The elected governing body of City B consists of five councilmen. These councilmen are elected to four-year terms. One of these five councilmen is selected by the majority of this body to serve as the city's mayor. However, unlike City A, City B's mayor has no veto power

<sup>77</sup> Records provided from Personnel and Training Division, City A's Police Department, 3-8-81.

<sup>78</sup> Ibid.

<sup>79</sup>U.S. Department of Commerce.

over the council. 80

The chief administrative officer of City B's government is the "City Manager." The manager is appointed by the council and serves at the council's pleasure. The city manager is responsible for the appointment of all city department heads and for the efficient administration of all departments of the city government. Therefore, the city's police chief is appointed by the city manager and is responsible to the manager for the efficient administration of the police department.

In the calendar year 1980, the city's police department had 53 sworn officers. Approximately 30 of these officers were assigned to the department's patrol division. The remaining 23 officers were assigned to other responsibilities within the department. The "Patrol Division" is responsible for both general police duties and traffic enforcement activities. Included among the patrol division's traffic activities is drunk driving enforcement. In calendar year 1980, City B's police department arrested 435 drunk drivers.

<sup>80</sup> Charter of City B, Chapter 4, Section 4.5 (a).

<sup>81</sup> Ibid., Chapter 7, Section 7.3 (h).

<sup>82</sup> Records provided by Record Division, City B Police Department, 3-9-81.

<sup>83&</sup>lt;sub>Ibid</sub>.

#### Research Questions

The purpose of this study was to provide answers to the following four research questions.

- What is the nature of the relationship between police patrol officers' selected demographic characteristics and their drunk driving enforcement performance?
- What is the nature of the relationship between police patrol officers' attitudes concerning their perception of support for drunk driving enforcement and their drunk driving enforcement performance?
- 3. What is the nature of the relationship between police patrol officers' attitudes concerning the procedures involved in processing a drunk driving case and their drunk driving enforcement performance?
- 4. What is the nature of the relationship between police patrol officers' attitudes concerning the drunk driver as a person and the danger he/she poses to highway safety, and their drunk driving enforcement performance?

Hypotheses to predict the relationships that exist in reference to the above research questions were not developed. Hypotheses would be appropriate if the study were designed to make use of a sampling technique to develop findings that would be generalized to the population. However, this descriptive study involved a survey of the total population, rather than a sample. No attempt was made to generalize the findings of this study to all law enforcement agencies.

### Research Design

This study was designed to identify the personal attitude and selected demographic characteristics of Cities A and B police patrol officers and to identify the relationship these attitudes and characteristics have to their drunk driving enforcement levels.

### Officers to be Surveyed

cities A and B police department records were examined to identify those police officers within these two departments that had served twelve consecutive months in their respective uniform divisions during calendar year 1980. These officers were approached in an attempt to secure their cooperation in completing a 43 item questionnaire.

### Officers' Attitudes and Demographic Characteristics

This 43 item questionnaire was administered to determine officers' personal attitudes on selected issues and to determine individual officer's demographic characteristics on nine items. (See Table 3.1.) This questionnaire was a modification of a 1974 instrument that was developed by Dunlap and Associates, Inc. 84 (See Appendix A.)

The questionnaire was introduced and monitored by

<sup>84</sup>NHTSA (Dunlap study).

the researcher. This personal introduction format was followed to minimize respondent concern of department coercion to participate in the study. Monitoring of respondents during completion of the questionnaire was followed to prevent cross influences between respondents and possible outside influences on the officers' responses.

The introduction of the questionnaire to prospective respondents involved:

- self introduction of researcher.
- brief description of the purpose of the study. (Description given was intentionally brief and general so as to avoid researcher's bias in the questionnaire responses.)
- assurance of confidentiality of individual responses.
- advice that some questions were of a personal nature; if respondent felt a question was too personal, he or she was asked to skip the question rather than share a response that was less than true.
- request for personal opinions rather than professional position.
- request for cooperation.

An attempt was made to administer all questionnaires during officers' regularly scheduled work hours. Again, every effort was made to assure all respondents that individual responses would remain confidential.

### Officers' Drunk Driving Enforcement Performance

Police department records were used to determine the number of drunk driving arrests made by each respondent during calendar year 1980.

## Comparison of Attitudes and Characteristics of Performance

Individual responses to each question were tabulated as to agency represented. This tabulation consisted of a total frequency of responses to given choices within each question along with the percentage this total represented in relation to all those responding within each department to the given question. For example, if 20 persons responded "yes" and 30 responded "no" to a Yes/No question, the summary would be recorded Yes = 20/40%, No = 30/60%. (Twenty representing 40% of the total 50 persons responding and 30 representing 60%.)

In addition to total frequencies, the total mean number of drunk driving arrests for all respondents to a given selection for each question was compiled. Using the same example as given above, the frequencies were 20 "Yes" and 30 "No." If the total mean for "Yes" equaled 7.23, this would indicate that the 20 respondents who selected the "Yes" choice averaged 7.23 drunk driving arrests for calendar year 1980.

In an attempt to examine responses to given questions based on levels of enforcement performance, rather than on frequency of response, only cross tabulations were performed. Levels of enforcement performance were categorized into 5 levels:

- 1. 1 or less arrest.
- 2. 2 5 arrests.
- 3. 6 11 arrests.
- 4. 12 15 arrests.
- 5. 16 or more arrests.

Again using the above example involving 50 respondents to a Yes/No question, the tabulation would be recorded as follows:

#### EXAMPLE

	LEVELS OF ARRESTS								
	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests		
Yes	0/0	2/10	5/25	6/30	7/34	20/40	7.23		
No	2/6.7	4/13.3	6/20	8/27.7	10/33.3	30/60	4.31		

## Degree of Association

In an attempt to determine the relative strength of the relationships between the factors under consideration and the officers' levels of drunk driving enforcement, a Cramer's V analysis was conducted. This statistical treatment was initiated at the recommendation of Michigan State University's Research Consultation office within the College of Education. The Cramer's V analysis was used to measure the degree of association between the variable under consideration and officers' number of drunk driving arrests. The Cramer's V is a slightly modified version of phi which is suitable for large tables. When phi is calculated for a table which is not 2 x 2, it has no upper limit. Therefore, Cramer's V is used to adjust phi for either the number of rows or the number of columns in the table, depending on which of the two is smaller. Its

formula is  $V = \left(\frac{g}{\min \ (r-1), \ (c-1)}\right)^{\frac{1}{2}} \cdot ^{85}$  Values for Cramer's V will range from 0 to +1 when several nominal categories are involved. Thus, a large value of V merely signifies that a high degree of association exists. If one squares the value derived from the Cramer's V analysis, the squared value indicates the percentage of variance that is accounted for by the association, i.e., a Cramer's V of .4 indicates  $16\% \ (.4^2)$  of the variance is attributed to the relationships under consideration and the remaining 84% is the result of other factors.

Thirty-one dependent variables were selected to be examined in this study. These variables were grouped into four broad areas.

- 1. Demographic characteristics.
- 2. Attitudes of support for enforcement.
- 3. Attitudes toward enforcement procedures.
- Attitudes toward the suspect and drunk driving.

The thirty-one variables that were examined are presented in Table 3.1.

The assessment of the study's research questions were based on the data obtained from the questionnaire and the enforcement level taken from departments' records.

In addition to examining the individual variables selected for the study, areas two, three and four were examined with a regression analysis to determine the relationship of each group to enforcement levels and their relative

<sup>85</sup> Norman H. Nie and others, Statistical Package for the Social Sciences, 2nd Edition, McGraw-Hill, 1975, p. 225.

#### Table 3.1 Factors Selected for Assessment

- 1. Officer's Demographic Characteristics
  - (1) Age
  - (2) Sex
  - (3) Formal education
  - (4) Work experience
  - (5) Relevant drunk driving enforcement training
  - (6) Personal contact with a drunk driver at an accident
  - (7) Negative experience by family member or friend
  - (8) Confident in knowledge for processing drunk drivers
  - (9) Personal drinking habits
  - (10) Personal drinking and driving habits
- 2. Officer's Attitudes of Support for Enforcement
  - (1) Citizen
  - (2) Peer
  - (3) Court
  - (4) Department
  - (5) Prosecutor
  - (6) Supervisors
  - (7) Adequate financial incentives
  - (8) Personal concern for additional complaints and lawsuits
- 3. Officer's Attitudes Toward Enforcement Procedures
  - (1) Too much paper work
  - (2) Too time consuming
  - (3) Penalties are too harsh
  - (4) Money influences disposition of drunk driving cases
  - (5) Release if suspect poses no immediate danger
  - (6) Arrest if accident is involved
  - (7) Enforcement must be sportsmanlike
- 4. Officer's Attitudes Toward the Suspect and Drunk Driving
  - (1) Recognition of hazard posed
  - (2) Position on drinking and driving
  - (3) Position on value of strict enforcement
  - (4) Understanding of the relationship between drunk driving and blood alcohol levels
  - (5) Position on the priority of drunk driving enforcement
  - (6) View of the drunk driver

influence on those enforcement levels.

Each of these three groups were coded as follows to facilitate the regression analysis. Responses to "Officer's Attitudes of Support for Enforcement" were grouped so that "Yes" responses were indicative of belief of support. Responses to variables under area three, "Officer's Attitudes Toward Enforcement Procedures," were grouped so that a "Yes" response was indicative of beliefs that the drunk driving processing procedure was personally acceptable. Lastly, group four, "Officers's Attitude Toward the Suspect and the Act of Drunk Driving," was grouped so that "Yes" responses were indicative of a recognition of the drunk driving problem and a factual understanding of suspect characteristics.

No attempt was made to examine demographic characteristics as a group with the regression analysis in that no logical commonality among this area's variables could be identified.

### Conclusions

The information obtained from the administration of the preceding design provided data for answering the research questions being examined in this study.

#### CHAPTER IV

#### DATA ANALYSIS

This chapter is devoted to a description of the implementation of the research design, as presented in Chapter III, and the results obtained. The presentation of the material in both of these areas should facilitate a more complete understanding of the research questions under consideration.

## Officer Selection

This study was designed to examine selected demographic characteristics and personal attitudes of Cities

A and B police patrol officers in an attempt to identify relationships with their drunk driving enforcement levels. The first step in implementing this study's design involved meeting with both cities' police chiefs. The objectives of these meetings were as follows:

- 1. To explain the purpose of this study.
- 2. To explain the proposed procedures to be employed in implementing this study.
- 3. To secure departmental permission for the study.
- 4. To secure a list of those officers that worked twelve consecutive months in the departments' patrol divisions.
- 5. To secure the number of drunk driving arrests

that were made by each of the officers identified as working in the patrol division for calendar year 1980.

Both cities' police chiefs were understanding of the need for the study and pledged department cooperation in securing the needed data. However, both chiefs expressed concern that officers might not be willing to participate in light of some of the personal questions that were to be asked of them in the questionnaire. was made clear at both of the meetings that the validity of the study would be jeopardized if any of the participants felt coerced by either the department or the researcher into participation. As a result of this understanding, both chiefs issued directives to their departments stating that permission had been given for the study, but that every officer was free to participate or decline to participate. In addition, all subsequent contacts by the researcher with department personnel were prefaced with an oral declaration that participation was strictly voluntary.

City B's police records identified 27 officers that had served all of calendar year 1980 in the department's patrol division. City A's records identified 68 police officers that had the same background from within their ranks. This provided a total population of 95 officers from both departments. In addition to the names of the officers, both departments furnished the number of

drunk driving arrests made by each officer for calendar year 1980.

### Data Gathering Procedures

The administration of the 43 item questionnaire began with City B's Police Department on February 16, 1981. This data gathering procedure involved a short oral presentation to the prospective respondents at the beginning of each of the three work shifts. This orientation to the prospective respondents included the following:

- self introduction of the researcher.
- brief explanation of the purpose of the study.
   (Explanation given was intentionally brief and general so as to avoid researcher bias in the questionnaire responses.)
- assurance of confidentiality of individual responses.
- notice that some questions were of a personal nature and that if a respondent felt a question was too personal, he/she was asked to skip the question rather than share a response that was less than truthful.
- a request for personal opinion responses rather than professional positions.
- a request for their assistance and cooperation.

Once the presentation was given, the prospective respondents were given an opportunity to take the question-naire at that time or decline the invitation and go to work. One of City B's officers elected to decline participation, leaving a total of 26 City B officers completing the questionnaire.

Collection of data from officers in City A Police
Department began on Sunday, March 1, 1981. The administration of the questionnaire followed the same procedure

as outlined for the collection of data in City B. All data collection activities for both police departments was completed on March 6, 1981.

Two officers from City A elected not to participate in the study and two more officers were unavailable to be surveyed due to an illness and an extended leave. Therefore, a total of 64 of the 68 prospective respondents from City A's Police Patrol Division completed the questionnaire. This made a total sample of 90 respondents from the two departments.

#### Enforcement Data

From the data provided by both departments, it was established that individual drunk driving enforcement levels varied from a high of 42 arrests to a low of one arrest in City B's Police Department (BPD) during 1980 and a high of 15 arrests to a low of zero arrests in City A's Police Department (APD) for the same time period. A summary of the individual officer's drunk driving enforcement level is found in Table 4.1.

An examination of the drunk driving enforcement activity data revealed BPD averaged 15.23 arrests per officer, while APD averaged 4.41 arrests for calendar year 1980. This difference in mean numbers of drunk driving arrests per officer may be due to numerous reasons that are beyond the scope of this study, for drunk driving enforcement is but one duty police officers face. Other problems

compete for his/her attention and, in some cases, may be judged more serious. This study was restricted to evaluating the relationship officers' demographic characteristics and selected personal attitudes has to their drunk driving enforcement levels. Therefore, no attempt was made to compare departments or other contributing factors, but rather to examine the data in relation to the four research questions for each department independently.

In preparation for data analysis, enforcement levels were grouped into five categories.

_	Those	who	made	no	more	than	ONE		
	arres	t						13	officers

- Those who made between TWO and FIVE arrests 36 officers
- Those who made between SIX and ELEVEN arrests 27 officers
- Those who made between TWELVE and FIFTEEN arrests 6 officers
- Those who made at least SIXTEEN arrests 8 officers

While individual enforcement data was used to compile mean number of arrests for differing responses to the questionnaire, arrest grouping of responses was useful for cross tabulation of data to identify relationships that existed at varying levels of enforcement activities. (See Table 4.2.)

Table 4.1 Number of Drunk Driving Arrests

•	APD	BPD			
Officer	Arrests	Officer	Arrests		
3	0	1	1		
9	1	1	3		
12	2	2	7		
6	3	3	8		
11	4	2	9		
6	5	3	10		
3	6	2	11		
1	7	1	13		
1 3 3 3 2	8	2	14		
3	9	1	15		
3	10	1	19		
2	11	1	21		
1	14	1	22		
1	15	1	23		
		1	27		
otal 64	Mean 4.41	1	36		
		1	38		
		1	42		
		<del></del>			
		Total 26 M	ean 15.23		

Table 4.2 Enforcement Levels by Department

PD	B	APD				
Arrests	No. of Officers	Arrests	No. of Officers			
0 - 1	1	0 - 1	12			
2 - 5	1	2 - 5	35			
6 - 11	12	6 - 11	15			
12 - 15	4	12 - 15	2			
16	8					
		Mean 4.41	otal 64			
Mean 15.23	Total 26					

# Demographic Characteristics

The variables that were examined in the area of demographic characteristics included the following:

- 1. Age
- 2. Sex
- 3. Formal education
- 4. Work experience
- 5. Relevant drunk driving enforcement training
- 6. Personal contact with a drunk driver at an accident
- 7. Negative experience by family member or friend
- 8. Confident in knowledge for processing drunk drivers
- 9. Personal drinking habits
- 10. Personal drinking and driving habits

The research question related to the above characteristics stated, "What is the nature of the relationship between City A and City B police patrol officers' selected demographic characteristics and these officers' drunk driving enforcement performance?"

1. Age: To obtain data to evaluate the nature of the relationship between officers' ages and their quantity of drunk driving arrests made, respondents were asked:

A summary of responses to this question, coupled with officers' number of drunk driving arrests made are reported in Table 4.3. An examination of this table indicated the number of drunk driving arrests tended to increase as the officers' age increased within APD. The inverse of this

Table 4.3 Relationship of Officer's Age to Number of Drunk Driving Arrests

NUMBER OF DRUNK DRIVING ARRESTS										
APD										
Age	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests			
<u>&lt;</u> 25	1/17	3/50	2/33	0/0	0/0	6/9.4	4.17			
26-30	6/17	22/61	7/19	1/3	0/0	36/56.3	4.25			
31-35	5/29	7/41	5/29	0/0	0/0	17/26.6	4.00			
36-40	0/0	3/60	1/20	1/20	0/0	5/ <b>7.8</b>	7.20			
41-45	0/0	0/0	0/0	0/0	0/0	0/0	0.00			
Cramer	's V =	.217								
				BPD						
<u>≤</u> 25	0/0	0/0	0/0	1/33	2/67	3/11.3	25.00			
26-30	0/0	0/0	4/67	1/17	1/17	6/23.1	12.17			
31-35	0/0	0/0	4/57	2/29	1/14	7/26.9	15.43			
36-40	0/0	1/14	3/43	0/0	3/42	7/26.9	14.71			
41-45	1/33	0/0	1/33	0/0	1/33	3/11.5	12.33			
Cramer	's V =	.418								

relationship appeared to exist within BPD; here the younger officer tended to average more drunk driving arrests than the older peer.

2. Officers' Sex: To obtain data to evaluate the nature of the relationship between officers' sex and their quantity of drunk driving arrests made, respondents were asked:

A summary of responses to this question, coupled with officers' number of drunk driving arrests made are reported in Table 4.4. An examination of this table indicated male officers within APS tended to make slightly more drunk driving arrests than female officers. The inverse of the relationship existed in BPD. However, the value of Cramer's V within APD data (.062) suggested sex held very little to no relationship with arrest levels.

3. Formal Education: To obtain data to evaluate the nature of the relationship between the amount of formal education officers had obtained and their quantity of drunk driving arrests made, respondents were asked:

Highest level of education (check one) . . 1) G.E.D.

2) High school only \_\_\_\_\_

3) Some college \_\_\_\_\_

4) 2 yr. college \_\_\_\_\_

5) 4 yr. college \_\_\_\_\_

6) 5 yr. or more college

A summary of responses to this question, coupled with officers' number of drunk driving arrests made are reported

Table 4.4 Relationship of Officers' Sex to Number of Drunk Driving Arrests

## NUMBER OF DRUNK DRIVING ARRESTS

# APD

Sex	0-1 #/%	2-5 #/%	6-11 #/%			Totals #/%	Mean Arrests
Male	11/18	33/55	14/23	2/3	0/0	60/93.8	4.43
Female	1/25	2/50	1/25	0/0	0/0	4/6.3	4.0

Cramer's V = .062

## BPD

Male	1/4	1/4	12/48	4/16	7/28	25/96.2	14.92
Female	0/0	0/0	0/0	0/0	1/100	1/3.8	23.0

Cramer's V = .300

in Table 4.5. An examination of this table indicated the number of drunk driving arrests tended to decrease within BPD as the level of formal education increased. Within APD the relationship was so mixed that no trend was identified.

4. <u>Work Experience</u>: To obtain data to evaluate the nature of the relationship between the amount of work experience officers had accumulated and their quantity of drunk driving arrests made, respondents were asked:

Years of Police				
experience		. 1)	2 yrs. or less	
_			3 to 5 years	
		3)	6 to 10 years	
		4)	ll to 15 years	
		5)	16 or more yrs.	

A summary of responses to this question, coupled with officers' number of drunk driving arrests made are reported in Table 4.6. An examination of this table indicated years of work experience was positive-related to the numbers of drunk driving arrests made by APD's officers; as experience increased so did number of arrests. However, within BPD, work experience was negative-related to drunk driving enforcement.

5. Relevant Drunk Driving Enforcement Training:
To obtain data to evaluate the nature of the relationship
between the amount of formal drunk driving enforcement
training the officers had accumulated and their quantity
of drunk driving arrests made, respondents were asked:

Have you had any special training relating to detecting, investigating

Table 4.5 Relationship of Officers' Formal Education To Number of Drunk Driving Arrests

	LEVELS OF ARRESTS									
APD										
Edu- cation	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	>16 #/%	Totals #/%	Mean Arrests			
G.E.D.	0/0	0/0	0/0	0/0	0/0	0/0	0			
High Sch.	0/0	1/100	0/0	0/0	0/0	1/1.6	2.00			
Some College	1/33	1/33	1/33	0/0	0/0	3/4.7	4.00			
2 yrs. College	6/19	14/45	9/29	2/7	0/0	31/48.4	4.87			
4 yrs. College	4/19	14/67	3/14	0/0	0/0	21/32.8	3.76			
≥5 yrs. College	1/13	5/63	2/25	0/0	0/0	8/12.5	4.75			
Cramer's	v = .17	9								
			BPD							
G.E.D	0/0	0/0	0/0	0/0	0/0	0/0	0			
High Sch.	0/0	0/0	0/0	0/0	0/0	0/0	0			
Some College	0/0	0/0	3/75	0/0	1/25	4/15.4	16.25			
2 yrs. College	0/0	0/0	6/60	2/20	2/20	10/38.5	16.20			
4 yrs. College	0/0	0/0	2/33	2/33	2/33	6/23.1	14.50			
≥5 yrs. College	1/17	1/17	1/17	0/0	3/50	6/23.1	13.67			

Cramer's V = .412

Table 4.6 Relationship of Officers' Years of Police Experience to Number of Drunk Driving Arrests

LEVELS OF ARRESTS								
APD								
Exper- ience	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	<u>&gt;</u> 16 #/%	Totals #/%	Mean Arrests	
≤2 yrs.	2/29	5/71	0/0	0/0	0/0	7/10.9	2.43	
3-5 yrs.	5/24	10/48	6/29	0/0	0/0	21/32.8	4.10	
6-10 yrs.	2/8	15/63	6/25	1/4	0/0	24/37.5	4.83	
11-15 yrs.	3/27	4/36	3/27	1/9	0/0	11/17.2	5.27	
<u>≥</u> 16 yrs.	0/0	1/100	0/0	0/0	0/0	1/1.6	5.00	
Cramer's V	= .216	5						
			BP	D				
≤2 yrs.	0/0	0/0	1/50	0/0	1/50	2/7.7	24.5	
3-5 yrs.	0/0	0/0	1/20	2/40	2/40	5/19.2	16.4	
6-10 yrs.	0/0	0/0	5/71	2/29	0/0	7/26.9	10.43	
11-15 yrs.	0/0	1/10	5/50	0/0	4/40	10/38.5	16.40	
≥16 yrs.	1/50	0/0	0/0	0/0	1/50	2/7.7	14.00	
Cramer's V	= .483	3						

or processing of a "drunk driver"?

l) Yes

2) No -

A summary of responses to this question, coupled with officers' number of drunk driving arrests made are reported in Table 4.7. An examination of this table indicated there was a substantial difference in frequency of special drunk driving enforcement training between the two departments. Approximately one-third (32.8%) of APD officers reported special training while 80.8% of BPD officers responded that they had special enforcement training. In both departments, special drunk driving enforcement training appeared to be negative-related to the number of drunk driving arrests made by these officers.

Accident: To obtain data to evaluate the nature of the relationship between officers who had/had not experienced personal contact with a drunk driver at an accident and these officers' number of drunk driving arrests made, respondents were asked two questions. The first question asked:

Have you ever been personally involved in a vehicle collision with a "drunk driver"?

1) Yes

2) No

A summary of responses to this question, coupled with officers' number of drunk driving arrests made are reported in Table 4.8. An examination of this table indicated personal contact in the form of officers being personally involved in an accident with a drunk driver

Table 4.7 Relationship of Officers' Formal Drunk Driving Enforcement Training to Number of Drunk Driving Arrests

	LEVELS OF ARRESTS										
APD											
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests				
Yes	5/24	12/57	3/14	1/5	0/0	21/32.8	4.05				
No	7/16	23/54	12/28	1/2	0/0	43/67.2	4.58				
Cramer's	v = .1	70				•					
			BP	D							
Yes	1/5	1/5	11/52	3/14	5/24	21/80.8	13.14				
No	0/0	0/0	1/20	1/20	3/60	5/19.2	24.00				
Cramer's	v = .3	51									

Table 4.8 Relationship of Officers' Personal Accident with Drunk Driver to Number of Drunk Driving Arrests

LEVELS OF ARRESTS								
	<u>APD</u>							
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests	
Yes	5/29	7/41	4/24	1/6	0/0	17/26.6	4.53	
No	7/15	28/60	11/23	1/2	0/0	47/73.4	4.36	
Cramer's V = .207								
			<u>B</u>	BPD				

0/0 0/0 4/50 2/25 2/25 8/30.8 15.38 Yes 1/6 1/6 8/44 2/11 6/33 18/69.2 No 15.17

Cramer's V = .259

appeared to be slightly positive-related to the number of arrests made by both departments' officers.

The second question asked:

Have you ever investigated a fatal	1)	Yes	
or serious P.I. accident involving	2)	No	
a "drunk driver"?		-	

A summary of responses to this question, coupled with their number of drunk driving arrests made are reported in Table 4.9. An examination of this table indicated personal contact in the form of experience at investigating a fatal or serious personal injury accident was positive-related to the number of drunk driving arrests made by both departments' officers.

7. Negative Experience with Drunk Driver by Family Member or Friend: To obtain data to evaluate the nature of the relationship between officers that had/had not had a close friend or family member injured by the actions of a drunk driver and their quantity of drunk driving arrests made, respondents were asked:

Has anyone in your family or a	1)	Yes	
close friend ever been injured	2)	No	
by the actions of a "drunk driver"?			

A summary of responses to this question, coupled with their number of drunk driving arrests made are reported in Table 4.10. An examination of this table indicated a negative experience with a drunk driver by a close friend or family member had a slightly positive relationship to the number of drunk driving arrests made by APD officers. However, this experience within BPD appeared to be negative-related

Table 4.9 Relationship of Officers' Investigation of Fatal or Serious P.I. Accident Involving a Drunk Driver to Number of Drunk Driving Arrests

LEV	ELS	OF	ARRESTS

## APD

Response		2-5 #/%			_	Totals #/%	Mean Arrests
Yes	10/20	25/51	12/25	2/4	0/0	49/76.6	4.60
No	2/13	10/67	3/20	0/0	0/0	15/23.4	3.47

Cramer's V = .155

В	P	D

Yes	1/4	1/4	11/48	4/17	6/26	23/88.5	14.17
No	0/0	0/0	1/33	0/0	2/67	3/11.5	23.33

Cramer's V = .299

Table 4.10 Relationship of Negative Experience with a Drunk Driver by Officer's Family or Friend to Number of Drunk Driving Arrests

LEVELS OF ARRESTS									
	APD								
Response	0-1 #/%	2-5 #/%	6-11 #/%	12 <b>-</b> 15 #/%	≥16 #/%	Totals #/%	Mean Arrests		
Yes	6/25	10/42	7/29	1/4	0/0	24/37.5	4.46		
No	6/15	25/63	8/20	1/3	0/0	40/62.5	4.38		
Cramer's V = .204									
			BP	<u>D</u>					
Yes	0/0	0/0	2/100	0/0	0/0	2/7.7	7.5		
No	1/4	1/4	10/42	4/17	8/33	24/92.3	15.88		
Cramer's V = .312									

to enforcement levels.

8. Confident in Knowledge for Processing Drunk
Drivers: To obtain data to evaluate the nature of the
relationship between officers who felt or did not feel
confident in knowledge for processing drunk drivers and
their quantity of drunk driving arrests made, respondents
were asked:

Do you have a good working knowledge	1)	Yes	
of the "drunk driving" laws and pro-	2)	No	
cedures related to "drunk driving"			
enforcement?			

A summary of responses to this question, coupled with their number of drunk driving arrests made are reported in Table 4.11. An examination of this table indicated all but one officer from both departments responded that they felt confident in their knowledge for processing drunk drivers.

9. <u>Personal Drinking Habits</u>: To obtain data to evaluate the nature of the relationship between officers' personal drinking habits and their quantity of drunk driving arrests made, respondents were asked three questions. The first question asked:

1)	Do not use	
2)	Once a month or less	
3)	Several times each month	
4)	Several times each week	
5)	Just about every day	
	2) 3) 4)	<ol> <li>Do not use</li> <li>Once a month or less</li> <li>Several times each month</li> <li>Several times each week</li> <li>Just about every day</li> </ol>

A summary of responses to this question, coupled with their number of drunk driving arrests made are reported in Table 4.12. An examination of this table indicated non-drinkers

Table 4.11 Relationship of Officers' Being Confident of Processing Knowledge to Number of Drunk Driving Arrests

LEVELS OF ARRESTS									
APD									
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests		
Yes	12/19	35/55	15/23	2/3	0/0	64/100	4.41		
No	0/0	0/0	0/0	0/0	0/0	0/0	0		
Cramer's	V =								
			BI	PD PD					
Yes	1/4	1/4	11/44	4/16	8/32	25/96.2	15.4		
No	0/0	0/0	1/100	0/0	0/0	1/3.8	11.0		
Cramer's	V = .2	16							

Table 4.12 Relationship of Frequency of Officers'
Personal Drinking to Number of Drunk
Driving Arrests

LEVELS OF ARRESTS									
APD									
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests		
Do not use	1/17	4/67	1/17	0/0	0/0	6/9.4	4.33		
<pre>&lt; once a month</pre>	2/11	10/56	5/28	1/6	0/0	18/28.1	5.06		
Several times each month	h 7/23	16/53	6/20	1/3	0/0	30/46.9	3.93		
Several times each week	h 2/29	3/43	2/29	0/0	0/0	7/10.9	4.29		
Just about every day		2/67	1/33	0/0	0/0	3/4.7	5.67		
Cramer's	v = .1	39							
			BI	<u>D</u>					
Do not use	1/50	0/0	1/50	0/0	0/0	2/7.7	5.50		
<pre>≤ once a month</pre>	0/0	1/10	5/50	0/0	4/40	10/38.5	15.50		
Several times each month	h 0/0	0/0	5/46	3/27	3/27	11/42.3	16.45		
Several times each week		0/0	1/33	1/33	1/33	3/11.5	16.33		
Just about		0/0	0/0	0/0	0/0	0/0	0.0		
Cramer's V = .483									

from both departments tended to be low to moderate drunk driving enforcers in relation to their drinking counterparts. Of those with APD that drink, the moderate to high enforcers tended to be the less frequent drinkers. In BPD, no apparent trend was identified as to the relationship between frequency of drinking experience and number of drunk driving arrests.

The second question asked:

When you are drinking, 1) Number of drinks \_\_\_\_ how may drinks or beers 2) Don't drink \_\_\_\_ will you generally have?

A summary of responses to this question, coupled with their number of drunk driving arrests, are reported in Table 4.13. An examination of this table indicated the relationship between the number of drinks consumed at one drinking experience to the number of drunk driving arrests made were so mixed in APD that no trend was identified. However, BPD showed a trend towards more arrests by the heavier drinking officers.

The third question asked:

Have you ever given up drinking for 1) Yes \_\_\_\_ an extended period of time because 2) No \_\_\_\_ of medical or personal reasons?

A summary of responses to this question, coupled with their quantity of drunk driving arrests made, are reported in Table 4.14. An examination of this table indicated the fact an officer had given up drinking had little relationship to the number of drunk driving arrests made by that officer.

Table 4.13 Relationship of Officers' Number of Drinks per Drinking Experience to Number of Drunk Driving Arrests

			LEVELS	OF ARRI	ESTS				
APD									
rinks	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrest		
0	1/17	4/67	1/17	0/0	0/0	6/9.4	4.33		
1	0/0	2/67	1/33	0/0	0/0	3/4.7	5.6		
2	3/20	6/40	5/33	1/7	0/0	15/23.4	4.4		
3	2/29	3/43	2/29	0/0	0/0	7/10.9	3.8		
4	3/27	8/73	0/0	0/0	0/0	11/17.2	3.1		
5	2/20	6/60	2/20	0/0	0/0	10/15.6	3.6		
6	0/0	2/40	2/40	1/20	0/0	5/7.8	8.0		
7	1/33	1/33	1/33	0/0	0/0	3/4.7	5.0		
8	0/0	1/100	0/0	0/0	0/0	1/1.6	2.0		
9	0/0	0/0	0/0	0/0	0/0	0/0	0		
10	0/0	2/67	1/33	0/0	0/0	3/4.7	5.6		
ramer'	s V = .	. 299							
				BPD					
0	1/50	0/0	1/50	0/0	0/0	2/7.7	5.5		
1	0/0	0/0	3/75	0/0	1/25	4/15.4	12.0		
2	0/0	1/14	3/43	1/14	2/29	7/26.9	15.2		
3	0/0	0/0	3/75	1/25	0/0	4/15.4	10.7		
4	0/0	0/0	1/20	2/40	2/40	5/19.2	19.0		
5	0/0	0/0	1/25	0/0	3/75	4/15.4	23.0		

Table 4.14 Relationship of Officers' Having Given Up
Drinking at One Time to Number of Drunk
Driving Arrests

LEVELS OF ARRESTS										
APD										
Response	0-1 #/%	2-5 #/%	6-11 #/%	12 <b>-</b> 15 #/%	>16 #/%	Totals #/%	Mean Arrests			
Yes	2/29	3/43	2/29	0/0	0/0	7/10.9	4.57			
No	10/18	32/56	13/23	2/4	0/0	57/89.1	4.39			
Cramer's V = .121										
	BPD									
Yes	0/0	0/0	2/40	1/20	2/40	5/19.2	14.20			
No	1/5	1/5	10/48	3/14	6/29	21/80.8	15.48			
Cramer's V = .174										

10. <u>Personal Drinking and Driving Habits</u>: To obtain data to evaluate the nature of the relationship between officers' personal drinking and driving habits and these officers' quantity of drunk driving arrests made, respondents were asked:

Do you at times drink to	o 1) Yes
much and still drive?	<pre>2) Very rarely</pre>
	3) Never

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.15. An examination of this table indicated APD officers that at times drink too much and still drive made fewer drunk driver arrests than those who responded that they "do not" or "rarely" mix too much drinking with driving. However, the inverse appeared to exist within BPD. 11.5% of their officers reported they at times drink too much and still drive; yet these officers averaged twice the number of drunk driving arrests as those BPD officers that reported they "do not" or "rarely" mix too much drinking with driving.

## Attitudes of Support for Drunk Driving Enforcement

The variables that were examined in the area of officer's perception of support for his/her drunk driving enforcement included the following:

- 1. Citizen support
- 2. Peer support
- 3. Court support
- 4. Department support
- 5. Prosecutor support

Table 4.15 Relationship of Officers' Drinking and Driving Habits to Number of Drunk Driving Arrests

LEVELS OF ARRESTS										
APD										
Response	0-1 #/%	2-5 #/%	6-11 #/%	12 <b>-</b> 15 #/%	≥16 #/%	Totals #/%	Mean Arrests			
Yes	3/50	3/50	0/0	0/0	0/0	6/9.4	2.33			
Rarely	4/13	18/56	9/28	1/3	0/0	32/50	4.66			
Never	5/19	14/54	6/23	1/4	0/0	26/40.6	4.58			
Cramer's V = .212										
			BP	D						
Yes	0/0	0/0	0/0	1/33	2/67	3/11.5	26.33			
Rarely	0/0	0/0	6/45	2/18	3/27	11/42.3	14.55			
Never	1/8	1/8	6/50	1/8	3/25	12/46.2	13.08			
Cramer's V = .352										

- 6. Supervisors support
- 7. Adequate financial incentives
- 8. Personal concern for additional complaints and lawsuits.

The research question related to the above variables dealing with support asked, "What is the nature of the relationship between APD and BPD police patrol officers' attitudes concerning their perception of support for drunk driving enforcement and these officers' drunk driving enforcement performance?"

1. <u>Citizen Support</u>: To obtain data to evaluate the nature of the relationship between officers' personal perception of citizen support for strict drunk driving enforcement and their quantity of drunk driving arrests made, respondents were asked:

Are the majority of citizens in your 1) Yes \_\_\_\_ jurisdiction truly in favor of strict 2) No \_\_\_\_ Trunk driving enforcement?

A summary of the responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.16. An examination of this table indicated officers' perception of citizen support for strict drunk driving enforcement was positive-related to drunk driving enforcement levels. Those officers that perceived citizen support of strict enforcement tended to make more drunk driving arrests than officers who did not share this view.

2. <u>Peer Support</u>: To obtain data to evaluate the nature of the relationship between officers' personal perception of peer support for drunk driving enforcement

Table 4.16 Relationship Between Officers' Personal
Perception of Citizen Support for Strict
Drunk Driving Enforcement to Number of Drunk
Driving Arrests

LEVELS OF ARRESTS									
APD									
Response		2-5 #/%		12-15 #/%	>16 #/%	Totals #/%	Mean Arrests		
Yes	7/17	24/57	9/21	2/5	0/0	42/65.6	4.57		
No	5/23	11/50	6/27	0/0	0/0	22/34.4	4.09		
Cramer's V = .162									
			<u>BP</u>	<u>D</u>					
Yes	1/6	1/6	7/41	2/12	6/35	17/65.4	16.12		
No	0/0	0/0	5/56	2/22	2/22	9/34.6	13.56		
Cramer's V = .282									

and these officers' quantity of drunk driving arrests made, respondents were asked two questions. The first question asked:

Are most officers in your department 1) Yes \_\_\_\_ lenient with the "drunk driver"? 2) No

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.17. An examination of this table indicated the majority of high enforcers at APD felt their fellow officers were lenient with drunk drivers, while the majority of high enforcers at BPD felt their fellow officers were not lenient with drunk drivers.

The second question asked:

If you were to start arresting three 1) Yes \_\_\_\_ or four drunk drivers a week, would 2) No \_\_\_\_ you expect negative feedback from fellow officers?

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.18. An examination of this table indicated APD officers' responses as to whether they would expect negative feedback was so mixed and evenly distributed that no trend in enforcement levels was identified. (Cramer's V = .064) However, BPD officers' responses were strong (Cramer's V = .725; this relationship accounts for 52% of the variance) and directional. These officers, whether high, moderate or low enforcers, generally did not expect negative feedback.

Table 4.17 Relationship Between Officers' Perception of Peers being Lenient with Drunk Drivers to Number of Drunk Driving Arrests

## LEVELS OF ARRESTS

## APD

Response		2-5 #/%	6-11 #/%	12-15 #/%		Totals #/%	Mean Arrests
Yes	6/14	26/59	10/23	2/5	0/0	44/68.8	4.73
No	6/30	9/45	5/25	0/0	0/0	20/31.3	3.70

Cramer's V = .231

#### BPD

Yes	1/13	1/13	2/25	1/13	3/38	8/30.8	16.38
No	0/0	0/0	10/56	3/17	5/28	18/69.2	14.72

Table 4.18 Relationship Between Officers' Expectation of Negative Feedback to Number of Drunk Driving Arrests

T.	FV	EI.	S	OF	Δ1	RR	FC	STS.

# APD

Response		2-5 #/%	6-11 #/%			Totals #/%	Mean Arrests
Yes	6/19	16/52	8/26	1/3	0/0	31/48.4	4.45
No	6/18	19/58	7/21	1/3	0/0	33/51.6	4.36

Cramer's V = .064

#### BPD

Yes	1/50	0/0	0/0	0/0	1/50	2/7.7	21.50
No	0/0	1/4	12/50	4/17	7/29	24/92.3	14.71

Cramer's V = .725

U

3. <u>Court Support</u>: To obtain data to evaluate the nature of the relationship between officers' personal perception of court support for drunk driving enforcement and these officers' quantity of drunk driving arrests, respondents were asked two questions. The first question asked:

In your juris	diction, are the	courts :	1)	Yes	
doing their j	ob when it comes	to	2)	No -	
dealing with	"drunk drivers"?			_	

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.19. An examination of this table indicated a large majority (84.4% at APD and 84.6% at BPD) of the officers believed the courts were not doing their job when it comes to dealing with drunk drivers. Officers that held this attitude tended to be high enforcers.

The second question to be asked reflected a concern for support from both the courts and prosecutors. This question was:

Does it bother you if the prosecutor 1) Yes or judge decides to reduce the charge? 2) No \_\_\_\_\_\_

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.20. An examination of this table indicated officers were approximately evenly divided on whether or not it bothered them if the prosecutor or court reduced the charge.

However, the relationship of this attitude to enforcement levels differed between departments. APD officers who

Table 4.19 Relationship Between Officers' Personal
Perception of Court Support for Drunk Driving
Enforcement to Number of Drunk Driving Arrests

	LEVELS OF ARRESTS								
	APD								
Responses	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	<u>&gt;</u> 16 #/%	Totals #/%	Mean Arrests		
Yes	3/30	5/50	2/20	0/0	0/0	10/15.6	3.6		
No	9/17	30/56	13/24	2/4	0/0	54/84.4	4.56		
Cramer's	v = .1	41							
			BI	<u>PD</u>					
Yes	0/0	0/0	2/50	0/0	2/50	4/15.4	24.75		
No	1/5	1/5	10/46	4/18	6/27	22/84.6	13.50		
Cramer's V = .254									

Table 4.20 Relationship Between Officers' Personal
Perception of Court and Prosecutor Support
for Drunk Driving Enforcement to Number of
Drunk Driving Arrests

LEVELS OF ARRESTS								
APD								
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	>16 #/%	Totals #/%	Mean Arrests	
Yes	6/18	15/46	11/33	1/3	0/0	33/51.6	4.85	
No	6/19	20/65	4/13	1/3	0/0	31/48.4	3.94	
Cramer's	v = .2	48						
			BI	<u>PD</u>				
Yes	0/0	0/0	7/54	4/31	2/15	13/50.0	13.69	
No	1/8	1/8	5/39	0/0	6/46	13/50.0	16.77	
Cramer's V = .566								

indicated it bothered them averaged more arrests, while BPD officers with the same attitude made fewer arrests.

4. <u>Department Support</u>: To obtain data to evaluate the nature of this relationship between officers' personal perception of department support for drunk driving enforcement and these officers' quantity of drunk driving arrests made, respondents were asked:

Is the importance of	"drunk driving"	1)	Yes	
enforcement stressed	by your depart-	2)	No	
ment?			_	

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.21. An examination of this table indicated officers from both departments that felt the importance of drunk driving enforcement was not stressed by their department tended to average high numbers of drunk driving arrests. This relationship among high enforcers appeared to be strongest within APD.

5. <u>Prosecutor Support</u>: To obtain data to evaluate the nature of the relationship between officers' personal perception of prosecutor support for drunk driving enforcement and these officers' quantity of drunk driving arrests made, respondents were asked:

In your jurisdiction, is	the	1)	Yes	
<pre>prosecutor doing his/her</pre>	job when	2)	No _	
it comes to dealing with	"drunk			
drivers"?				

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table

Table 4.21 Relationship Between Officers' Personal
Perception of Department Support for Drunk
Driving Enforcement to Number of Drunk Driving
Arrests

LEVELS OF ARRESTS								
APD								
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	<u>&gt;</u> 16 #/%	Totals #/%	Mean Arrests	
Yes	6/27	12/55	4/18	0/0	0/0	22/34.4	3.55	
No	6/14	23/55	11/26	2/5	0/0	42/65.6	4.86	
Cramer's	v = .2	07						
			ВІ	<u>PD</u>				
Yes	1/9	1/9	3/27	2/18	4/36	11/42.3	13.45	
No	0/0	0/0	9/60	2/13	4/27	15/57.7	16.53	
Cramer's V = .416								

- 4.22. An examination of this table indicated the frequency of officers that felt the prosecutor was not doing his/her job when it came to dealing with drunk drivers was high (71.9% APD and 88.5% BPD). While several high enforcers in BPD did not share this view, the vast majority of high producers in both departments tended to feel the prosecutor was not doing the job in dealing with their drunk driving arrests.
- 6. <u>Supervisor Support</u>: To obtain data to evaluate the nature of the relationship between officers' personal perception of supervisors' support for strict drunk driving enforcement and these officers' quantity of drunk driving arrests made, respondents were asked:

Do all of your	supervisors truly	1) 1	Yes
support strict	"drunk driving"	2) 1	No
enforcement?	_		

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.23. An examination of this table indicated APD officers that perceived their supervisors were in support of strict drunk driving enforcement tended to be low enforcers, while BPD officers who responded that their supervisors were in support of strict enforcement tended to be high enforcers.

7. Adequate Financial Incentives: To obtain data to evaluate the nature of the relationship between officers' perception of adequate financial support for drunk driving enforcement and these officers' quantity of drunk driving arrests made, respondents were asked:

Table 4.22 Relationship Between Officers' Personal
Perception of Prosecutor Support for Drunk
Driving Enforcement to Number of Drunk Driving
Arrests

# LEVELS OF ARRESTS

# APD

Response		2-5 #/%			_		Mean Arrests
Yes	3/17	13/72	2/11	0/0	0/0	18/28.1	3.50
No	9/20	22/48	13/28	2/4	0/0	46/71.9	4.76

Cramer's V = .246

#### BPD

Yes	0/0	0/0	1/33	0/0	2/67	3/11.5	24.67
No	1/4	1/4	11/48	4/17	6/26	23/88.5	14.00

Table 4.23 Relationship Between Personal Perception of Supervisors' Support for Strict Drunk Driving Enforcement to Number of Drunk Driving Arrests

# LEVELS OF ARRESTS

#### APD

Response	0-1 #/%		6-11 #/%		_	Totals #/%	Mean Arrests
Yes	6/18	22/67	5/15	0/0	0/0	33/51.6	3.88
No	6/19	13/42	10/32	2/7	0/0	31/48.4	4.97

Cramer's V = .304

BP:	D
-----	---

Yes	1/9	0/0	4/36	1/9	5/46	11/42.3	17.09
No	0/0	1/7	8/53	3/20	3/20	15/57.7	13.87

Are there financial incentives in	1)	Yes	
your department that adequately	2)	No	
pay an officer for the extra time			
he/she must at times spend on a			
"drunk driving" charge?			

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.24. An examination of this table indicated high drunk driving enforcers from both departments felt the financial incentives were not adequate for the extra time they must at times spend on a drunk driving case.

8. Personal Concern for Additional Complaints and Lawsuits: To obtain data to evaluate the nature of the relationship between officers' concerns for additional complaints and lawsuits if drunk driving enforcement was to be increased and these officers' quantity of drunk driving arrests made, respondents were asked:

Would you expect additional citizen 1) Yes \_\_\_\_ complaints and possible lawsuits 2) No \_\_\_\_ involving the arrest made if you doubled your "drunk driving" enforcement?

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.25. An examination of this table indicated officers from both departments tended not to associate increased arrests with more citizen complaints or lawsuits (73.4% APD and 80.8% BPD). Of those who did make this association of doubled arrests with more citizen complaints and lawsuits, most tended to average low to moderate in their drunk driving enforcement.

Table 4.24 Relationship Between Adequate Financial Incentives to Number of Drunk Driving Arrests

		L	EVELS (	OF ARRE	STS		
			Al	PD			
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	>16 #/%	Totals #/%	Mean Arrests
Yes	4/19	13/62	3/14	1/5	0/0	21/32.8	4.14
No	8/19	22/51	12/28	1/2	0/0	43/67.2	4.53
Cramer's	v = .1	62					
			BI	<u>PD</u>			
Yes	0/0	1/17	4/67	0/0	1/17	6/23.1	11.00
No	1/5	0/0	8/40	4/20	7/35	20/76.9	16.50
Cramer's	V = .4	82					

Table 4.25 Relationship Between Officers' Perception of More Arrests Equals More Complaints and Lawsuits to Number of Drunk Driving Arrests

		I	EVELS (	OF ARRE	STS		
			<u>Al</u>	PD			
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests
Yes	1/6	12/71	4/24	0/0	0/0	17/26.6	4.65
No	11/23	23/49	11/23	2/4	0/0	47/73.4	4.32
Cramer's	v = .2	<b>4</b> 5					
			BI	<u>PD</u>			
Yes	1/20	0/0	3/60	0/0	1/20	5/19.2	14.60
No	0/0	1/5	9/43	4/19	7/33	21/80.8	15.38
Cramer's	v = .4	76					

#### Attitudes Toward Drunk Driving Enforcement Procedures

The variables that were examined in the area of officers' attitudes toward procedures to be used in processing a suspected drunk driver included the following:

- 1. Too much paper work
- 2. Too time consuming
- 3. Penalties are too harsh
- 4. Money influences disposition of drunk driving cases
- 5. Release if suspect poses no immediate danger
- 6. Arrest if accident is involved
- 7. Enforcement should be sportsmanlike

The research question related to the above variables asked, "What is the nature of the relationship between City A and City B police patrol officers' attitudes concerning the procedures involved in processing a drunk driving case and their drunk driving enforcement performance?"

1. Too Much Paper Work: To obtain data to evaluate the nature of the relationship between officers' attitudes toward the quantity of paper work associated with a drunk driving arrest and these officers' quantity of drunk driving arrests made, respondents were asked:

In your department, is there	1)	Yes	
excessive paper work required	2)	No	
to process a "drunk driver"?		•	

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.26. An examination of this table indicated most

Table 4.26 Relationship Between the Officers' Personal Perception of Too Much Paper Work Involved in Processing Drunk Driving Arrests to Number of Drunk Driving Arrests

		L	EVELS (	OF ARRE	STS		
			AI	<u>PD</u>			
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests
Yes	11/20	31/57	11/20	1/2	0/0	54/84.4	4.00
No	1/10	4/40	4/40	1/10	0/0	10/15.6	6.60
Cramer's	v = .2	54	<b>D</b> .	. D			
			В	<u> </u>			
Yes	1/6	1/6	6/35	3/18	6/35	17/65.4	16.53
No	0/0	0/0	6/67	1/11	2/22	9/34.6	12.78
Cramer's	v = .3	28					

officers perceived too much paper work associated with drunk driving arrests (84.4% APD and 65.4% BPD). The majority of officers that responded "no" to this question tended to be moderate APD enforcers and high BPD enforcers.

2. Too Time Consuming: To obtain data to evaluate the nature of the relationship between officers' attitudes toward the appropriateness of the amount of time that was required to process a drunk driver and these officers' quantity of drunk driving arrests made, respondents were asked:

Is the amount of time it takes to 1) Yes \_\_\_\_ process a "drunk driver" excessive 2) No \_\_\_\_ when compared to the benefits produced?

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.27. An examination of this table indicated a little over one-half of BPD officers (53.8%) felt the amount of time was too much in relation to the benefits, while 78.1% of APD officers perceived the time as being excessive. In both departments, the officers that felt the time was appropriate averaged more arrests.

3. Penalties Too Harsh: To obtain data to evaluate the nature of the relationship between officers' attitudes toward the appropriateness of the penalties associated with a conviction of first offense drunk driving and these officers' quantity of drunk driving arrests made, respondents were asked:

Table 4.27 Relationship Between the Officers' Personal Perception of the Process Being Too Time Consuming and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS										
<u>APD</u>										
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests			
Yes	11/22	27/54	10/20	2/4	0/0	50/78.1	4.30			
No	1/7	8/57	5/36	0/0	0/0	14/21.9	4.79			
Cramer's	v = .2	17								
			BI	<u>PD</u>						
Yes	1/7	1/7	6/43	3/21	3/21	14/53.8	13.43			
No	0/0	0/0	6/50	1/8	5/42	12/46.2	17.33			
Cramer's	V = .3	60								

Are the penalties for first 1) Yes offense "drunk driving" too harsh? 2) No

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.28. An examination of this table indicated only one officer felt the penalty was too harsh for first offense drunk driving.

4. Money Influences Disposition of Drunk Driving

Cases: To obtain data to evaluate the nature of the relationship between those officers that believed and didn't believe that the disposition of drunk driving cases could be influenced by money and these officers' quantity of drunk driving arrests made, respondents were asked:

In your jurisdiction, can a person 1) Yes \_\_\_\_ with money or a good attorney usually 2) No \_\_\_\_ beat or get a "drunk driver" charge reduced?

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.29. An examination of this table indicated 93.8% of APD and 84.6% of BPD officers were of the opinion that a person with money or a good attorney usually could beat or get a drunk driving charge reduced. Those APD officers that did not share this opinion tended to be low drunk driving enforcers. However, BPD officers who did not agree with this position tended to be moderate to high enforcers.

5. Release If Suspect Poses No Immediate Danger:
To obtain data to evaluate the nature of the relationship

Table 4.28 Relationship Between the Officers' Personal Perception that the Penalties for Drunk Driving Are Too Harsh and the Number of Drunk Driving Arrests

		L	EVELS (	OF ARRE	STS		
			<u>A1</u>	PD			
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests
Yes	0/0	1/100	0/0	0/0	0/0	1/1.6	2.00
No	12/19	34/54	15/24	2/3	0/0	63/98.4	4.44
Cramer's	v = .1	15					
			<u>B</u> 1	<u>PD</u>			
Yes	0/0	0/0	0/0	0/0	0/0	0/0	0.
No	1/4	1/4	12/46	4/15	8/31	26/100.0	15.23
Cramer's	v =						

Table 4.29 Relationship Between the Officers' Personal Perception That the Drunk Driving Procedure Favors Wealth and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS								
APD								
Response	0-1 #/%	2-5 #/%	6-11 #/%		≥16 #/%	Totals #/%	Mean Arrests	
Yes	11/18	32/53	15/25	2/3	0/0	60/93.8	4.53	
No	1/25	3/75	0/0	0/0	0/0	4/6.3	2.50	
Cramer's	v = .1	55						
			BI	<u>PD</u>				
Yes	1/5	1/5	9/41	4/18	7/32	22/84.6	14.86	
No	0/0	0/0	3/75	0/0	1/24	4/15.4	17.25	
Cramer's V = .277								

between officers that were inclined and not inclined to release without a charge a suspected drunk driver who posed no immediate danger and these officers' quantity of drunk driving arrests made, respondents were asked two questions. The first question asked:

In your jurisdiction, is there value 1) Yes \_\_\_\_ in arresting a "drunk driver" who has 2) No \_\_\_\_ not caused an accident or committed a serious driving violation?

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.30. An examination of this table indicated officers who did not perceive the value of arresting a drunk driver who had not caused an accident or committed a serious violation averaged fewer drunk driving arrests than those who did not share this opinion.

The second question asked:

If there is very little traffic on 1) Yes \_\_\_\_ the road, would you be more likely 2) No \_\_\_\_ to give a "drunk driver" a break and let him go?

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.31. An examination of this table indicated officers who were inclined to release a suspected drunk driver if there were very little traffic averaged fewer drunk driving arrests than officers who did not share this attitude.

6. Arrest If Accident Is Involved: To obtain data to evaluate the nature of the relationship between officers that were and were not more likely to arrest for drunk

Table 4.30 Relationship Between Officers' Inclination to Release Without Charge a Suspected Drunk Driver Who Poses No Immediate Danger and the Number of Drunk Driving Arrests

		L	EVELS C	F ARRE	ESTS		
			AP	<u>D</u>			
Response	0-1 #/%	2-4 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests
Yes	5/13	21/55	11/29	1/3	0/0	38/59.4	4.84
No	7/27	14/54	4/15	1/4	0/0	26/40.6	3.77
Cramer's	v = .2	11					
			BP	<u> </u>			
Yes	1/5	1/5	8/36	4/18	8/36	22/84.6	16.41
No	0/0	0/0	4/100	0/0	0/0	4/15.4	8.75

Table 4.31 Relationship Between Officers' Inclination to Release Without Charge a Suspected Drunk Driver If There is Very Little Traffic and the Number of Drunk Driving Arrests

APD								
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests	
Yes	7/27	15/58	4/15	0/0	0/0	26/40.6	3.54	
No	5/13	20/53	11/29	2/5	0/0	38/59.4	5.00	
Cramer's	v = .2	57	ВІ	PD				
Yes	1/20	0/0	2/40	1/20	1/20	5/19.2	11.20	
No	0/0	1/5	10/48	3/14	7/33	21/80.8	16.19	

driving if the suspect caused a traffic accident and these officers' quantity of drunk driving arrests made, respondents were asked:

Are you more likely to arrest	1)	Yes
someone for "drunk driving" if	2)	No
they caused an accident?		

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.32. An examination of this table indicated officers who were more likely to arrest for drunk driving if a suspect had caused an accident made on the average more drunk driving arrests than those who did not share this attitude.

7. Enforcement Should Be Sportsmanlike: To obtain data to evaluate the nature of the relationship between officers that viewed and did not view drunk driving enforcement in a sportsmanlike fashion and these officers' quantity of drunk driving arrests made, respondents were asked two questions. The first question was:

If a "drunk driver" is stopped near	1)	Yes	
his or her home, are you likely to	2)	No	
allow the driver to go uncharged for			
"drunk driving"?			

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.33. An examination of this table indicated officers who were high enforcers were not inclined to release a drunk driver who was stopped near his/her home.

The second question dealing with sportsmanlike enforcement asked:

Table 4.32 Relationship Between Officers' Being More
Likely to Arrest for Drunk Driving If There
Has Been an Accident and the Number of Drunk
Driving Arrests

LEVELS OF ARRESTS								
	<u>APD</u>							
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests	
Yes	11/20	27/49	15/27	2/4	0/0	55/85.9	4.69	
No	1/11	8/89	0/0	0/0	0/0	9/14.1	2.67	
Cramer's	v = .2	89						
			<u>B</u> 1	PD				
Yes	0/0	0/0	9/47	4/21	6/32	19/73.1	16.37	
No	1/14	1/14	3/43	0/0	2/29	7/26.9	12.14	
Cramer's V = .517								

Table 4.33 Relationship Between Officers' Inclination to Release Without Charge a Suspected Drunk Driver If the Suspect Is Stopped Near His or Her Home and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS							
APD							
Release	0-1 #/%	2-5 #/8	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests
Yes	7/18	23/59	9/23	0/0	0/0	39/60.9	4.05
No	5/20	12/48	6/24	2/8	0/0	25/39.1	4.96
Cramer's	V = .2	34					
			BI	PD PD			
Yes	1/17	0/0	3/50	0/0	2/33	6/23.1	18.00
No	0/0	1/5	9/45	4/20	6/30	20/76.9	14.40
Cramer's V = .433							

Is it unprofessional or basically 1) Yes unfair to patrol for "drunk drivers" 2) No in an area immediately around drinking establishments?

A summary of responses to this question, coupled with their number of drunk driving arrests made, are reported in Table 4.34. An examination of this table indicated 48.4% of APD and 14.4% of BPD officers responded it was unfair to patrol around drinking establishments. Of these responses, most APD officers averaged from low to moderate in their enforcement levels, while BPD officers in this category tended to average moderate to high in their enforcement levels. However, the large majority of high enforcers felt it was not unfair to patrol around drinking establishments.

# Attitudes Towards the Suspect and Drunk Driving

The variables that were examined in the area of officers' attitudes toward the drunk driver as a person and toward drunk driving as a violation included the following:

- 1. Recognition of hazard posed
- 2. Position on drinking and driving
- 3. Position on value of strict enforcement
- 4. Understanding of the relationship between drunk driving and blood alcohol levels
- 5. Position on the priority of drunk driving enforcement
- 6. View of the drunk driver

The research question related to the above variables asked, "What is the nature of the relationship between APD and BPD police patrol officers' attitudes concerning the drunk driver as a person and the danger he/she poses to highway safety and these officers' drunk driving

Table 4.34 Relationship Between the Officers' Personal Attitude That It Is Unfair to Patrol Around Drinking Establishments and the Number of Drunk Driving Arrests

		L	EVELS (	OF ARRE	STS		
APD							
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	16 #/%	Totals #/%	Mean Arrests
Yes	8/26	17/55	6/19	0/0	0/0	31/48.4	3.74
No	4/12	18/55	9/27	2/6	0/0	33/51.6	5.03
Cramer's	V = .2	47					
			BI	PD D			
Yes	0/0	0/0	3/75	0/0	1/25	4/15.4	16.25
No	1/5	1/5	9/41	4/18	7/32	22/84.6	15.05
Cramer's	v = .2	77					

enforcement performance?"

1. Recognition of Hazard Posed: To obtain data to evaluate the nature of the relationship between officers' understandings of the hazard posed by the drunk driver and these officers' quantity of drunk driving arrests made, respondents were asked:

Are "drunk drivers" a large hazard 1) Yes to public safety in your community? 2) No ——

A summary of responses to this question, coupled with officers' number of drunk driving arrests made, are reported in Table 4.35. An examination of this table indicated 68.8% of APD officers felt drunk drivers posed a large hazard to public safety in their community, while 100% of BPD officers shared this view for their community. Those APD officers who did not view drunk drivers as a large hazard averaged fewer drunk driving arrests than their counterparts.

2. <u>Position on Drinking and Driving</u>: To obtain data to evaluate the nature of the relationship between officers' personal position on the appropriateness of combining driving with drinking and these officers' quantity of drunk driving arrests made, respondents were asked two questions. The first question was:

Would you support the position that 1) Yes \_\_\_\_ no person should drive a vehicle if 2) No \_\_\_\_ he or she has been drinking any alcoholic beverages?

A summary of responses to this question, coupled with officers' number of drunk driving arrests made, are

Table 4.35 Relationship Between the Officers' Personal Perception of the Hazard Posed by the Drunk Driver and the Number of Drunk Driving Arrests

	LEVELS OF ARRESTS							
APD								
Response	0-1 #/#	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests	
Yes	8/18	22/50	13/30	1/2	0/0	44/68.8	4.80	
No	4/20	13/65	2/10	1/5	0/0	20/31.3	3.55	
Cramer's	V = .2	22						
			<u>B</u> 1	<u>PD</u>				
Yes	1/4	1/4	12/42	4/15	8/31	26/100	15.23	
No	0/0	0/0	0/0	0/0	0/0	0/0	0	

reported in Table 4.36. An examination of this table indicated officers who felt no one should drink and drive made fewer drunk driving arrests than their counterparts on this question.

The second question asked in reference to this variable was:

Is it accurate to say that just	1)	Yes
about anybody who drinks is guilty	2)	No
of "drunk driving" at some time or		
another?		

A summary of responses to this question, coupled with officers' number of drunk driving arrests made, are reported in Table 4.37. An examination of this table indicated 73.4% of APD officers and 57.7% of BPD officers felt that just about anybody who drinks and drives is guilty of drunk driving at some time or another. These officers averaged considerably more drunk driving arrests than those officers who did not share this attitude.

3. Position on Value of Strict Enforcement: To obtain data to evaluate the nature of the relationship between officers who supported and did not support strict enforcement of drunk driving laws and these officers' quantity of drunk driving arrests made, respondents were asked three questions. The first question was:

Does strict "drunk driving" enforce-	1)	Yes	
ment serve as a deterrent to the	2)	No	
potential "drunk driver" even though		•	
it does not receive full support of			
the courts or the prosecutor?			

A summary of responses to this question, coupled with

Table 4.36 Relationship Between the Officers' Personal Position on the Appropriateness of Mixing Drinking and Driving and the Number of Drunk Driving Arrests

T.	FI	/F	2.1	OF	ΔP	PF	STS
	$\perp$	<i>,</i> 1.	பல	OI.	$-\alpha$	$\Gamma$	

# APD

Response		2-5 #/8	6-11 #/%			Totals #/%	Mean Arrests
Yes	3/27	7/64	0/0	1/9	0/0	11/17.2	3.82
No	9/17	28/53	15/28	1/2	0/0	53/82.8	4.53

Cramer's V = .289

## BPD

Yes	0/0	0/0	4/67	0/0	2/33	6/23.1	12.67
No	1/5	1/5	8/40	4/20	6/30	20/76.9	16.00

Table 4.37 Relationship Between Officers' Attitude that Drinking and Driving Will Lead to Drunk Driving and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS									
APD									
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests		
Yes	6/13	25/53	14/30	2/4	0/0	47/73.4	5.17		
No	6/35	10/59	1/6	0/0	0/0	17/26.6	2.29		
Cramer's V = .336									
BPD									
Yes	0/0	0/0	6/40	3/20	6/40	15/57.7	17.47		
No	1/9	1/9	6/55	1/9	2/18	11/42.3	12.18		
Cramer's V = .416									

officers' number of drunk driving arrests made, are reported in Table 4.38. An examination of this table indicated officers who recognized the deterrent value of strict drunk driving enforcement, even though it did not receive full support of the courts or the prosecutor, averaged substantially more drunk driving arrests than those who did not share this view.

The second question asked in reference to this variable was:

Is an officer at times more effective 1) Yes \_\_\_\_ if he or she simply "chews out" the 2) No \_\_\_\_ "drunk driver" and then sees that he gets home safely?

A summary of responses to this question, coupled with officers' number of drunk driving arrests made, are reported in Table 4.39. An examination of this table indicated officers who did not recognize a simple "chewing out" of a drunk driver as an effective method at times for dealing with the drunk driver averaged more arrests than those who did not share this attitude.

The third question to be asked in reference to the value of strict drunk driving enforcement was:

At times, do you find a ticket for 1) Yes a lesser driving violation is just 2) No as effective as arresting the violator for "drunk driving"?

A summary of responses to this question, coupled with officers' number of drunk driving arrests made, are reported in Table 4.40. An examination of this table indicated officers who felt a ticket for a lesser charge

Table 4.38 Relationship Between Officers' Attitude that Strict Drunk Driving Enforcement Serves as a Deterrent and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS									
APD									
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests		
Yes	6/18	16/49	9/27	2/6	0/0	33/51.6	5.06		
No	6/19	19/61	6/19	0/0	0/0	31/48.4	3.71		
Cramer's V = .209									
BPD									
Yes	1/6	1/6	5/29	3/18	7/41	17/65.4	17.53		
No	0/0	0/0	7/78	1/11	1/11	9/34.6	10.89		
Cramer's V = .477									

Table 4.39 Relationship Between Officers' Attitude as to the Effectiveness of a Verbal Reprimand and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS									
APD									
Response	0-1 #/%	2-5 #/%	6-11 #/%	12 <b>-</b> 15 #/%	≥16 #/%	Totals #/%	Mean Arrests		
Yes	6/18	20/59	7/21	1/3	0/0	34/53.1	4.15		
No	6/20	15/50	8/27	1/3	0/0	30/46.9	4.70		
Cramer's V = .091									
BPD									
Yes	0/0	1/9	5/46	3/27	2/18	11/42.3	13.36		
No	1/7	0/0	7/47	1/7	6/40	15/57.7	16.60		
Cramer's V = .431									

Table 4.40 Relationship Between Officers' Personal Attitude Concerning the Effectiveness of a Lesser Charge and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS								
			AH	<u>ס</u> י				
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests	
Yes	5/21	14/58	5/21	0/0	0/0	24/37.5	3.96	
No	7/18	21/53	10/25	2/5	0/0	40/62.5	4.68	
Cramer's	v = .1	53						
			BF	D				
Yes	0/0	0/0	1/100	0/0	0/0	1/3.8	9.00	
No	1/4	1/4	11/44	4/16	8/32	25/96.2	15.48	
Cramer's	Cramer's V = .216							

at times was just as effective as arresting a drunk driver for the charge averaged fewer arrests than those officers who did not share this opinion.

4. Understanding of the Relationship Between Drunk
Driving and Blood Alcohol Levels: To obtain data to
evaluate the nature of the relationship between officers
who did and did not understand the relationship between
driving ability and blood alcohol levels and these officers' quantity of drunk driving arrests made, respondents
were asked:

Are there some people who can safely 1) Yes \_\_\_\_\_ operate a vehicle upon a public 2) No \_\_\_\_\_ highway with a blood alcohol content of .10%?

A summary of responses to this question, coupled with these officers' number of drunk driving arrests made, are reported in Table 4.41. An examination of this table indicated officers who were of the opinion that there are people who can safely operate a vehicle upon a public highway with a blood alcohol level of .10% averaged fewer drunk driving arrests than those officers who did not share this opinion. This attitude existed with 70.3% of APD officers and 46.2% of BPD officers.

5. Position on the Priority of Drunk Driving
Enforcement: To obtain data to evaluate the nature of the relationship between officers who did and did not hold drunk driving as a high priority responsibility and these officers' quantity of drunk driving arrests made,

Table 4.41 Relationship Between the Knowledge of the Effect of Blood Alcohol Level on Driving and the Number of Drunk Driving Arrests

### LEVELS OF ARRESTS

#### APD

Response		2-5 #/8	6-11 #/%			Totals #/%	Mean Arrests
Yes	8/18	25/56	11/24	1/2	0/0	45/70.3	4.56
No	4/21	10/53	4/21	1/5	0/0	19/29.7	4.05

Cramer's V = .093

# BPD

Yes	0/0	1/8	5/42	2/17	4/33	12/46.2	16.25
No	1/7	0/0	7/50	2/14	4/29	14/53.8	14.36

Cramer's V = .290

respondents were asked two questions. The first question was:

Is it at times good judgment to not 1) Yes \_\_\_\_ arrest a "drunk driver" due to a 2) No \_\_\_\_ shortage of manpower to answer calls, check doors or back up fellow officers, etc.?

A summary of responses to this question, coupled with these officers' number of drunk driving arrests made, are reported in Table 4.42. An examination of this table indicated 57.8% of APD officers and 23.1% of BPD officers felt it was at times good judgment to not arrest a drunk driver due to manpower shortages. APD officers who held this opinion averaged slightly more arrests. However, the higher enforcers did not share this view, nor did the high enforcers within BPD.

The second question in reference to this variable asked:

Could you make a greater contribution to traffic safety in your
jurisdiction by making a concentrated
effort at speeders rather than "drunk
drivers"?

A summary of responses to this question, coupled with these officers' number of drunk driving arrests made, are reported in Table 4.43. An examination of this table indicated officers who viewed speeding in their jurisdiction as a priority activity over drunk driving enforcement averaged substantially fewer drunk driving arrests than officers who did not share this attitude. Speeding was viewed as a priority activity over drunk

Table 4.42 Relationship Between the Priority Placed on Drunk Driving Enforcement and the Number of Drunk Driving Arrests

\_\_\_\_\_

#### LEVELS OF ARRESTS

## APD

Response	-	2-5 #/%		12-15 #/%		Totals #/%	Mean Arrests
Yes	6/16	20/54	11/30	0/0	0/0	37/57.8	4.57
No	6/22	15/56	4/15	2/7	0/0	27/42.2	4.19

Cramer's V = .266

_	_	_
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ъ	$\mathbf{r}$	

Yes	1/6	0/0	7/44	4/25	4/25	16/61.5	14.50
No	0/0	1/10	5/50	0/0	4/40	10/38.5	16.40

Cramer's V = .448

Table 4.43 Relationship Between Officers' Personal Attitude of Giving Speeding Enforcement Priority Over Drunk Driving Enforcement and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS								
			Al	PD				
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests	
Yes	4/27	10/67	1/7	0/0	0/0	15/23.4	2.73	
No	8/16	25/51	14/29	2/4	0/0	49/76.6	4.92	
Cramer's	v = .2	54						
			<u>B1</u>	PD				
Yes	0/0	0/0	1/100	0 /0	0/0	1/3.8	8.00	
No	1/4	1/4	11/44	4/16	8/32	25/96.2	15.52	
Cramer's	v = .2	16						

driving enforcement by 23.4% of APD officers and 3.8% of BPD officers.

6. View of the Drunk Driver: To obtain data to evaluate the nature of the relationship between officers who did and did not hold negative opinions of drunk drivers and these officers' quantity of drunk driving arrests made, respondents were asked two questions. The first question was:

Do you find that many "drunk	1)	Yes	
drivers" are most uncooperative	2)	No	
and insulting toward an arresting			
officer?			

A summary of responses to this question, coupled with these officers' number of drunk driving arrests made, are reported in Table 4.44. An examination of this table indicated officers who felt many drunk drivers are most uncooperative and insulting tended to be lower enforcers.

The second question to be asked in reference to this variable was:

Are 1	most "	drunk	drivers"	1)	Yes	
alco	holics	?		2)	No	

A summary of responses to this question, coupled with these officers' number of drunk driving arrests made, are reported in Table 4.45. An examination of this table indicated officers who felt most drunk drivers were alcoholics were fewer in numbers (9.4% APD and 3.8% BPD) and tended to be low drunk driving enforcers when compared to their counterparts on this question.

Table 4.44 Relationship Between Officers' Personal Attitude that Drunk Drivers are Uncooperative and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS								
		_						
			Al	<u>PD</u>				
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/5	Totals #/%	Mean Arrests	
Yes	10/21	24/50	13/27	1/2	0/0	48/75.0	4.40	
No	2/13	11/69	2/13	1/6	0/0	16/25.0	4.44	
Cramer's	v = .2	15						
			BI	<u>PD</u>				
Yes	0/0	0/0	6/43	4/29	4/29	14/53.8	15.64	
No	1/8	1/8	6/50	0/0	4/33	12/46.2	14.75	
Cramer's V = .476								

Table 4.45 Relationship Between Officers' Personal Attitude that Most Drunk Drivers are Alcoholics and the Number of Drunk Driving Arrests

LEVELS OF ARRESTS							
			Al	<u>PD</u>			
Response	0-1 #/%	2-5 #/%	6-11 #/%	12-15 #/%	≥16 #/%	Totals #/%	Mean Arrests
Yes	2/33	3/50	1/17	0/0	0/0	6/9.4	3.33
No	10/17	32/55	14/24	2/3	0/0	58/90.6	4.52
Cramer's	v = .1	32					
			BI	<u>PD</u>			
Yes	0/0	0/0	0/0	1/100	0/0	1/3.8	15.00
No	1/4	1/4	12/48	3/12	8/32	25/96.2	15.24
Cramer's V = .469							

### Relative Influence of Variable Areas

Thirty-one variables were examined in this study.

These variable were categorized into four areas:

- 1. Demographic Characteristics
- Officers' Attitudes of Support for Drunk Driving
- 3. Officers' Attitudes Toward Drunk Driving Enforcement Procedures
- 4. Officers' Attitudes Toward the Suspect and the Violation of Drunk Driving

In an attempt to identify the relative influence that each of the four areas had on the number of drunk driving arrests made by cities "A" and "B" police patrol officers, a multiple regression analysis was performed. Each area's variables were examined to identify a common dimension that was unique to each area. The first area's variables lacked any logical commonality and, as a result, this area (demographic characteristics) was not included in the multiple regression analysis. Therefore, the multiple regression analysis was restricted to areas two, three and four. Three separate mean scores were calculated for these areas for each department.

The first mean score represented the average number of arrests made by those officers who perceived support in respect to all eight variables categorized under area, "Support for Enforcement." These mean scores were 4.38 arrests for City A and 15.76 arrests for City B.

The second mean score represented the average number of arrests made by those officers who perceived the processing procedure for drunk drivers appropriate in respect to the seven variables categorized under area three, "Attitudes Toward Enforcement Procedures." These scores were 4.00 arrests for City A and 13.38 arrests for City B.

The third mean score represented the average number of drunk driving arrests made by those officers that held accurate perceptions toward the drunk driver and the hazards the violation poses to public safety.

These scores were 4.01 arrests for City A and 13.80 for City B.

Once the three mean arrest scores were calculated for each of the three areas, individual officer's number of arrests for drunk driving in 1980 were regressed against the mean scores. The result of this multiple regression analysis appears in Table 4.46.

The variables categorized under attitudes of support, attitudes toward enforcement procedures and attitudes toward the drunk driver and the act of drunk driving accounted for 30% of the variance that was found with the number of arrests made by APD officers and 28% of BPD officers' arrests.

Both APD and BPD officers who perceived support for the variable categorized under area of support averaged more arrests than those officers who did not

sense this support. (3.74 more arrests per year in APD and 6.27 more arrests per year in BPD.)

Officers who perceived the drunk driving enforcement procedures as appropriate or personally acceptable averaged fewer arrests than those who did not share this view. (5.23 fewer arrests per year in APD and 1.96 fewer per year in BPD.)

Lastly, APD and BPD officers who held accurate perceptions toward the drunk driver and the hazards the violation poses to public safety averaged fewer arrests than their counterparts. This area tended to be somewhat subjective; for example, officers who were asked if some people can safely operate a vehicle at a blood alcohol level of .10% tended to be substantially lower enforcers if they answered "Yes" to this question. No attempt was made to justify the cause of this finding in this study. But rather, this finding suggests further research is needed to determine the cause of this relationship.

Table 4.46 Multiple Regression Analysis

#### AVERAGE NUMBER OF ARRESTS

	Area II*	Area III**	Area IV***	Mult. R <sup>2</sup>
City A	3.74	-5.23	-7.31	.30
City B	6.27	-1.96	-5.62	.28

<sup>\*</sup>Those who perceived support for enforcement.

<sup>\*\*</sup>Those who perceived enforcement procedures appropriate.

<sup>\*\*\*</sup>Those who held valid perceptions toward drunk drivers and drunk driving enforcement.

#### CHAPTER V

#### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter will be devoted to (1) a review of the study, (2) a summary of the findings and conclusions and (3) a discussion of some implications for further research.

### Background of Study

In response to the growing awareness of the drinking driver's role in highway deaths, injuries and property damage, there have been numerous broadly-based countermeasure programs seeking to reduce the incidence of drunk driving. One element that has been common to nearly all these countermeasure programs is strict police enforcement of the drunk driving statutes. Be Despite the recognition of the hazards posed by the drunk driver and of the deterrent effect of strict drunk driving enforcement, individual officer's drunk driving arrest levels remain low. Data collected in this study suggests City A police patrol officers average just over one drunk driving arrest every three months worked, while City B patrol

<sup>86</sup>NHTSA (Dunlap study), p. 1.

officers average just over one drunk driving arrest per month worked.

This study attempted to determine what relationship selected personal attitudes of Cities A and B police officers, along with their personal background experience (demographic characteristics), had to their number of drunk driving arrests. If it could be determined what attitudes and characteristics are negatively or positively related to drunk driving enforcement levels, then research could be directed to determine the causes of these relationships. With an understanding of the causes of these relationships, countermeasures, i.e., training, procedural changes, could be formulated to lessen the influence of variables that are related to low enforcement and to enhance those variables that are related to high enforcement. For without an accurate understanding of these relationships, little can be done in this area to improve the levels of drunk driving arrests.

### Research Design

This study was undertaken to identify and describe the relationship that exists between selected demographic characteristics and personal attitudes of Cities A and B police patrol officers, and the number of drunk driving arrests made by these officers. A questionnaire was designed and administered to 94.7% of the patrol officers from the two departments. This questionnaire, consisting

of 43 questions (see Appendix "A"), was structured to collect data on 31 variables (see Table 3.1).

The data gathered with the questionnaire was compiled in conjunction with the number of drunk driving arrests made by each officer in calendar year 1980. This enforcement data was compiled from official records of both departments. The research design employed in this study provided data that allowed for analysis of the nature of the relationships that exist within City A and City B police departments in respect to four research questions:

- 1. What is the nature of the relationship between police patrol officers' selected demographic characteristics and their drunk driving enforcement performance?
- What is the nature of the relationship between police patrol officers' attitudes concerning their perception of support for drunk driving enforcement and their drunk driving enforcement performance?
- 3. What is the nature of the relationship between police patrol officers' attitudes concerning the procedures involved in processing a drunk driving case and their drunk driving enforcement performance?
- 4. What is the nature of the relationship between police patrol officers' attitudes concerning the drunk driver as a person and the danger he/she poses to highway safety, and their drunk driving enforcement performance?

### Findings and Conclusions

As stated in Chapter IV, drunk driving enforcement is but one of many duties a police officer faces. Other

responsibilities compete for attention and may at times be judged a higher priority task. Recognizing the fact that there are numerous factors that influence levels of drunk driving enforcement, this study was restricted to an examination of the relationship that exists between levels of drunk driving enforcement and personal attitudes and demographic characteristics of police patrol officers in Cities A and B.

The regression analysis of the data as reported in Table 4.46 indicates the personal attitude variables examined account for 30% of the variance that was found among the numbers of arrests made by APD officers and 28% of BPD officers' arrests.

Both APD and BPD officers who perceived support for the variables categorized under area of support averaged more arrests than those officers who did not sense this support for their drunk driving enforcement efforts. (3.74 more arrests per year in APD and 6.27 more arrests per year in BPD.)

ment procedures as appropriate or personally acceptable averaged fewer arrests than those who did not share this view. (5.23 fewer arrests per year in APD and 1.96 fewer arrests per year in BPD.) This suggests that high drunk driving enforcement may lead to displeasure or negative attitudes as these officers experience more contact with the current drunk driving enforcement procedures.

Finally, APD and BPD officers who held accurate perceptions toward the drunk driver and the hazards this violation poses to public safety averaged fewer arrests than their counterparts. This area tends to be somewhat subjective; for example, officers who were asked if some people can safely operate a vehicle at a blood alcohol level of .10% tended to be substantially lower enforcers if they answered "Yes" to this question. No attempt has been made to justify the cause of this finding. But rather, this finding suggests further research is needed to determine the cause of the relationship.

The strength of the relationship between the individual variables examined and the number of drunk driving arrests made by patrol officers within these two departments were examined with a Cramer's V analysis (refer to page 57 for explanation). This analysis indicated there is a low to moderate strength of relationship between the individual variables examined and the number of drunk driving arrests made by these officers. A summary of the results of the Cramer's V analyses is reported in Tables 5.1, 5.2, 5.3 and 5.4.

It should be noted, the strength of these relationships are consistently higher in City B's police department with the exception of question number 37. This suggests the individual variables examined in this study account for a greater percentage of the variance in numbers of arrests within BPD than in APD. In other words, it appears other

Table 5.1 Relationship of Demographic Characteristics to the Number of Drunk Driving Arrests

Variable	Question Cramer's Number APD		
Age	. 1	.217	.418
Sex	. 2	.062	.300
Formal Education	. 3	.172	.412
Work Experience	. 4	.216	.483
Drunk Driving Enforcement			
Training	. 5	.170	.351
Personal Contact with Drunk	6	.207	.259
Driver at an Accident	_	.155	.299
Negative Experience by Family			
or Friend	. 7	.204	.312
Confident in Knowledge for		All Yes	
Processing Drunk Drivers .	. 8	Responses	.216
	10	.139	.483
Personal Drinking Habits	. 11	.299	.497
·	32	.121	.174
Personal Drinking and			
Driving Habits	. 26	.212	.352

Table 5.2 Relationship of Attitudes of Support for Drunk Driving Enforcement to the Number of Drunk Driving Arrests

											_	uestion		er's V
Support Var	ia	b]	le								1	Number	APD	BPD
Citizen .	•	•	•	•	•		•	•	•	•	•	12	.162	.282
Peer	•	•	•	•	•	•	•	•	•	•	•	13 27	.231	.474 .725
Court	•	•	•	•	•	•	•	•	•	•	•	14 20	.141	.254 .566
Department	•	•	•	•	•	•	•	•	•	•	•	15	.207	.416
Prosecutor	•	•	•	•	•	•	•	•	•	•	•	33	.246	.299
Supervisor		•	•	•	•	•	•	•	•	•	•	35	.304	.408
Financial	•	•	•	•	•	•	•	•	•	•	•	40	.162	.482
Concerns for Complaints							_	3	•	•	•	34	. 245	.476

Table 5.3 Attitudes Toward Drunk Driving Enforcement Procedures

	Question	Cramer's V		
Variable	Number	APD	BPD	
Too Much Paper Work	. 16	. 254	.328	
Too Time Consuming	. 18	.217	.360	
Penalties Are Too Harsh	. 29	.115	All No Response	
Money Influences Disposition of Drunk Driving Cases	. 30	.155	.277	
Release If Suspect Poses No Immediate Danger	. 42	.211	.461 .430	
Arrest If Accident Is Involved	. 28	.289	.517	
Enforcement Should Be Sportsmanlike	. 31 . 19	.234	.433 .277	

Table 5.4 Attitudes Toward the Suspect and Drunk Driving

			uestion	Cramer's V		
Variable		1	Number	APD	BPD	
Recognition of Hazard Posed	•	•	23	.222	All Yes Response	
Position on Drinking and Driving	•	•	24 22	.289 .336	.312 .416	
Position on Value of Strict Enforcement	•	•	41 21 39	.209 .091 .153	.477 .431 .216	
Understanding of the Relation ship Between Drunk Driving and Blood Alcohol Levels	-	•	25	.093	.290	
Position on the Priority of Drunk Driving Enforcement		•	36 37	.266	.448 .216	
View of the Drunk Driver .	•	•	38	.215	.476	

factors beyond the scope of this study exert a stronger influence on drunk driving enforcement performance within APD than within BPD.

While the strength of these relationships as determined by Cramer's V is generally low to moderate, a further examination reveals the direction the relationship takes is not consistent. For example, older officers within APD tended to be higher enforcers while older officers with BPD tended to be lower enforcers. However, there are numerous variables that were examined that share like relationships with arrest performance among officers within the two departments.

The following characteristics and personal attitudes were found to be related to higher enforcement levels
within both departments:

- Perception that arrest procedures are "too time consuming," and involve "too much paper work."
- Perception that financial incentives for drunk driving arrests are inadequate for the extra time spent.
- Perception that citizens support strict enforcement.
- Perception that courts and prosecutors are not doing their job in dealing with drunk drivers.
- Perception that just about anybody who drinks is guilty of drunk driving at some time.
- Perception that it is proper to patrol for drunk drivers around drinking establishments.
- Recognition of the value of strict drunk driving enforcement.
- Experienced an accident with a drunk driver or

have policed a fatal or serious personal injury accident involving a drunk driver.

- Perception that their department does not adequately stress the importance of drunk driving.
- Tendency to arrest if drunk driver caused an accident.

The following characteristics and personal attitudes were found to be related to lower enforcement levels within both departments:

- Perception that some people can safely operate a vehicle with a blood alcohol level of .10%.
- Tendency to pass up a drunk driving arrest if there is a department manpower shortage at the time of contact.
- Perception that many drunk drivers are uncooperative, insulting and/or alcoholic.
- Non-drinker (low to moderate enforcers).
- Tendency to personally drink too much at times and still drive.
- Have received special drunk driving enforcement training.
- Perception that there is no value in arresting for drunk driving where no accident was caused or serious violation committed.
- Inclined to release a drunk driver if traffic is light.
- Inclined to release if stopped near the suspect's home.
- Perception that drunk driving does not pose a large hazard to public safety.
- Perception that no one should mix drinking with driving.

A review of the above findings suggests that officers who are higher drunk driver enforcers and, as a

result, are exposed to more contact with the system for dealing with drunk drivers, have in some areas developed personal attitudes of lack of support for their drunk driving enforcement task, e.g., courts, prosecutors and department.

The same relationship appears to hold true for attitudes toward the appropriateness of the processing procedure employed. The higher the number of arrests and the subsequent exposure to the processing procedure, the higher the dissatisfaction with the processing procedure, e.g., too time consuming, too much paper work, financial incentives are inadequate for the task.

Lastly, even though it may be nice to believe that our drunk driving laws are administered uniformly among officers and departments, the data developed in the study suggests that officers who do not personally recognize the danger posed by the drinking driver or the value of strict drunk driving enforcement tend to be low drunk driving enforcers in relation to their counterparts.

#### Recommendations

This study has identified many relationships between demographic characteristics and personal attitudes and the number of drunk driving arrests that were common to both APD and BPD as well as many more relationships unique to each department. However, as stated in Chapter I, "the greatest value of the study from a broad perspective may

be that it should identify relationships and areas where further research appears worthwhile."

While many relationships have been identified, statements of relationships need to be followed with an understanding of the cause of these relationships. Therefore, further study is needed to determine the precise cause of these relationships. For example, why does special drunk driving enforcement training appear to be related to low enforcement? Is this due to the nature of training given, is it the indirect result of selective training of those who have been and continue to be low enforcers, or is it due to some other reason? If, in fact, drunk driving enforcement is directly influenced, at least in part, by attitudes, further research is needed to determine if training programs can effectively influence attitudes and in turn influence arrest levels. And, if this is the case, what curriculum and format is best suited for this task?

The overwhelming perception of lack of support from the court and prosecutors by the police officers studied clearly indicates another area worthy of further examination. Research is needed to determine if, in fact, these "support" agencies within the criminal justice system are not providing the officers with the support needed or with the support that is appropriate for this task.

Lastly, research is needed to determine what long term effect negative relationships have on number of drunk

driving arrests made by officers who are currently high enforcers. Will high enforcers continue a high level of enforcement over time if they hold the personal attitude that they lack outside support or if they don't agree with the procedures associated with the drunk driving enforcement?

## APPENDIX A

DEMOGRAPHIC CHARACTERISTICS AND ATTITUDE QUESTIONNAIRE

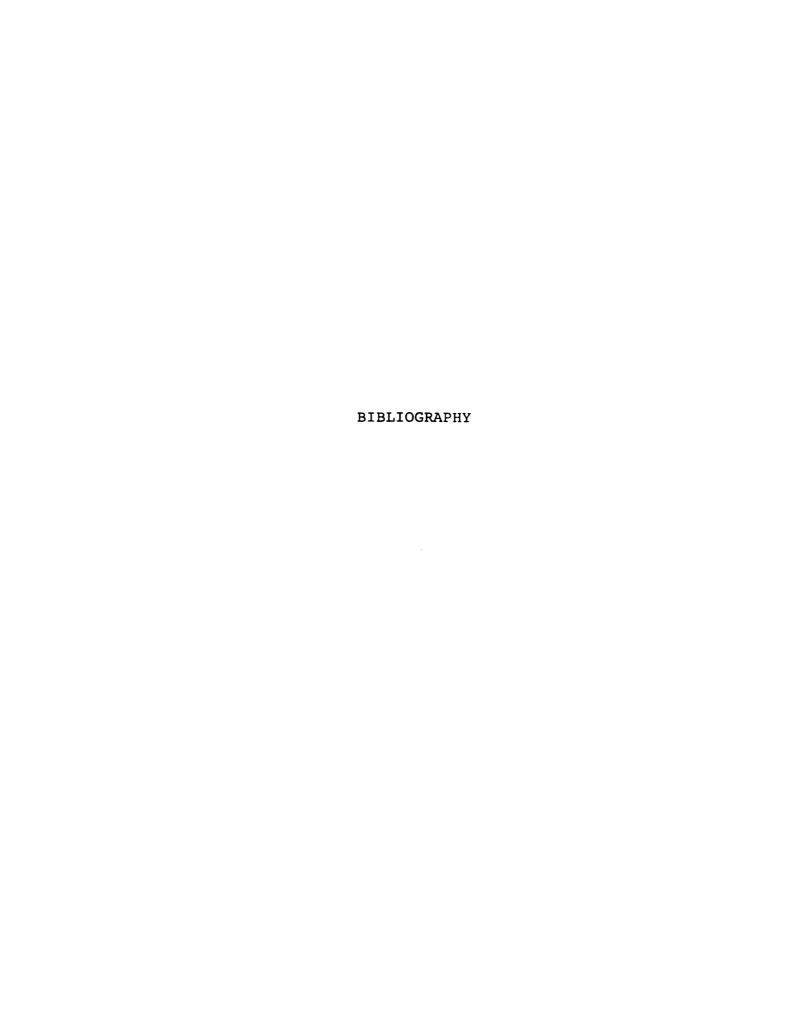
#### APPENDIX A

# QUESTIONNAIRE

1.	2) 26 3) 31 4) 36 5) 41	or ur to 30 to 35 to 40 to 45 or or	) 5 ) 5	
2.	Sex (check one)	Male Fema		
3.	Highest level of education 1) G.E.D.  (check one)  2) High School o 3) Some College 4) 2 yr. College 5) 4 yr. College 6) 5 yr. or more	·	lege	
4.	Years of Police experience	ears years year	s ^s	
5.	Have you had any special training relating to detecting, investigating or processing of a "drunk driver"?	1)	Yes No	
6.	Have you ever been personally involved in a vehicle collision with a "drunk driver"?	1) 2)	Yes No	
7.	Has anyone in your family or a close friend ever been injured by the actions of a "drunk driver"?	1)	Yes No	
8.	Do you have a good working knowledge of the "drunk driving" laws and procedures related to "drunk driving" enforcement?	1)	Yes No	
9.	Have you ever investigated a fatal or serious P.I. accident involving a "drunk driver"?	1)	Yes No	
10.	How often do you drink alcoholic beverages? (check one)  2) Once a month or 3) Several times ea 4) Several times ea 5) Just about every	ch mo		
11.	When you are drinking, how many drinks or beers will you generally have?  1) Number of 2) Don't dr		inks	
12.	Are the majority of citizens in your jurisdiction truly in favor of strict "drunk driving" enforcement?	1)	Yes No	

13.	Are most officers in your department lenient with the "drunk driver"?	1) 2)	Yes No	
14.	In your jurisdiction are the courts doing their job when it comes to dealing with "drunk drivers"?	1) 2)	Yes No	
15.	Is the importance of "drunk driving" enforcement stressed by your department?	1) 2)	Yes No	
16.	In your department is there excessive paperwork required to process a "drunk driver"?	1) 2)	Yes No	
17.	If there is very little traffic on the road, would you be more likely to give a "drunk driver" a break and let him go?	1) 2)	Yes No	
18.	Is the amount of time it takes to process a "drunk driver" excessive when compared to the benefits produced?	1) 2)	Yes No	
19.	Is it unprofessional or basically unfair to patrol for "drunk drivers" in an area immediately around drinking establishments?	1)	Yes No	
20.	Does it bother you if the prosecutor or judge decides to reduce the charge?	1) 2)	Yes No	
21.	Is an officer at times more effective if he or she simply "chews out" the "drunk driver" and then sees that he gets home safely?	1)	Yes No	
22.	Is it accurate to say that just about anybody who drinks is guilty of "drunk driving" at some time or another?	1)	Yes No	
23.	Are "drunk drivers" a large hazard to public safety in your community?	1) 2)	Yes No	
24.	Would you support the position that no person should drive a vehicle if he or she has been drinking any alcoholic beverages?	1)	Yes No	
25.	Are there some people who can safely operate a vehicle upon a public highway with a blood alcohol content of .10%?	1)	Yes No	
26.	Do you at times drink too much and still drive? 1) Yes 2) Ver 3) Nev	y ra er	rely	
27.	If you were to start arresting three or four drunk drivers a week, would you expect negative feedback from fellow officers?	1) 2)	Yes No	

28.	Are you more likely to arrest someone for "drunk driving" if they caused an accident?	1) 2)	Yes No	
29.	Are the penalties for first offense "drunk driving" too harsh?	1)	Yes No	
30.	In your jurisdiction, can a person with money or a good attorney usually beat or get a "drunk driver" charge reduced?	1)	Yes No	
31.	If a "drunk driver" is stopped near his or her home, are you likely to allow the driver to go uncharged for "drunk driving"?	1)	Yes No	
32.	Have you ever given up drinking for an extended period of time because of medical or personal reasons?	1) 2)	Yes No	
33.	In your jurisdiction, is the prosecutor doing his/her job when it comes to dealing with "drunk drivers"?	1) 2)	Yes No	
34.	Would you expect additional citizen complaints and possible lawsuits involving the arrest made if you doubled your "drunk driving" enforcement?	1) 2)	Yes No	
35.	Do all of your supervisors truly support strict "drunk driving" enforcement?	1) 2)	Yes No	
36.	Is it at times good judgment to not arrest a "drunk driver" due to a shortage of manpower to answer calls, check doors or back up fellow officers, etc.?	1)	Yes No	
37.	Could you make a greater contribution to traffic safety in your jurisdiction by making a concentrated effort at speeders rather than "drunk drivers"?	1)	Yes No	
<b>3</b> 8.	Do you find that many "drunk drivers" are most uncooperative and insulting toward an arresting officer?	1)	Yes No	
39.	At times, do you find a ticket for a lesser driving violation is just as effective as arresting the violator for "drunk driving"?	1)	Yes No	
40.	Are there financial incentives in your department that adequately pay an officer for the extra time he/she must at times spend on a "drunk driving" charge?	1)	Yes No	
41.	Does strict "drunk driving" enforcement serve as a deterrent to the potential "drunk driver" even though it does not receive full support of the courts or the prosecutor?	1) 2)	Yes No	
42.	In your jurisdiction, is there value in arresting a "drunk driver" who has not caused an accident or committed a serious driving violation?	1)	Yes No	
43.	Are most "drunk drivers" alcoholics?	1)	Yes No	



#### **BIBLIOGRAPHY**

- Bacom, Selden D. "Traffic Accidents Involving Alcohol in the U.S.A.: Second-Stage Aspects of a Social Problem." Quarterly Journal of Studies on Alcohol, No. 4. May, 1968.
- Berry, D. W. "Alcohol as a Factor in Traffic Accidents." Quarterly Journal on Alcohol Studies, Vol. 1, 1946.
- Blane, Howard T., Willis F. Overton and Morris E. Chafatz. "Social Factors in the Diagnosis of Alcoholism."

  Quarterly Journal on Alcohol Studies. December, 1962.
- Boek, J. K. "Driver Behavior and Accidents." American Journal of Public Health, Vol. 47, 1957.
- Borkenstein, R. F., and others. The Role of the Drinking Driver in Traffic Accidents. Ed. Allen Dale, Purdue; Department of Police Administration, Indiana University, 1964.
- Campbell, Donald T. "Social Attitudes and Other Acquired Behavioral Dispositions." Ed. by Sigmund Koch, New York. Psychology: A Study of a Science. McGraw-Hill, 1963.
- Cassie, A. B., and W. R. Allen. "Alcohol and Road Accidents." <u>British Medical Journal</u>, Sat., December 23, 1961.
- Charter of City "A". Article 2; Article 5.
- Charter of City "B". Chapter 4; Chapter 7.
- Chief of Police, City A. Personal interview. February 5, 1981.
- Chief of Police, City B. Personal interview. February 11, 1981.
- Cronbach, Lee J. Essentials of Psychological Testing. 2d ed. New York: Harper and Row Publishers, 1960.

- Dann, Richard, and others. Governor's Task Force on the Drinking Driver Problem. Interim Report. February 1, 1971.
- Defluer, Melvin L., and Frank R. Westie. "Attitude as a Scientific Concept." Social Forces, Vol. 42, 1963.
- Driving Under the Influence of Alcohol and Drugs. Traffic Law Enforcement Series 2071. Evanston: Traffic Institute, Northwestern University, 1966.
- Festinger, Leon, and Daniel Katz. Research Methods in the Behavioral Sciences. Chicago, Illinois, 1953.
- Freimuth, H. C., S. R. Watts and R. S. Fisher. "Alcohol and Highway Fatalities." Journal Forensic Science, Vol. 3, 1958.
- Gerber, S. R. Vehicular Fatalities in Cuyahoga County,
  U.S.A., Twenty Years' Experience (1941-60) in Alcohol
  and Road Traffic. B.M.A. House London, 1962.
- Haddon, W. Jr., and V. A. Brodess. "Alcohol in the Single Vehicle Fatal Accident." Experience of Westchester County, New York. JAMA, Vol. 169, 1959.
- Havard, J. D. J. "Alcohol and Road Accidents." Practitioner, Vol. 188, 1962.
- Holcomb, R. L. "Alcohol in Relation to Traffic Accidents." JAMA, Vol. 111, 1938.
- Hyman, R. M., A. R. Helrich and G. Besson. "Ascertaining Police Bias in Arrests for Drunken Driving."

  Quarterly Journal of Studies on Alcohol, Vol. 33, No. 1. March, 1972.
- International Association of Chiefs of Police. Alcohol Enforcement Countermeasures Instructor's Manual. Washington, D.C., 1971.
- Katz, Daniel, and Ezra Stotland. "A Preliminary Statement to a Theory of Attitude Structure and Change." Ed. Sigmund Koch. Psychology: A Study of a Science, Vol. 3. New York: McGraw-Hill, 1959.
- Knowledge and Attitudes of the New Hampshire Residents

  Concerning Drinking and Driving; Results of a Baseline

  Survey. Alcohol Safety Action Project -- New Hampshire, Concord. May 31, 1972.
- Lees, M. A. "An Analysis of the Judicial Disposition of Alcohol Related Traffic Arrests." South Dakota

- University, Vermillion, Human Factors Psychology Laboratory. May, 1974. (Sponsored by ASAP -- South Dakota, Pierre and NHTSA, Office of Alcohol Countermeasures.)
- Linn, Lawrence S. "Verbal Attitudes and Overt Behavior: A Study of Racial Discrimination." Social Forces, Vol. 43, 1965.
- Lucas, G. H. W., and others. "Quantitative Studies of the Relationship Between Alcohol Levels and Motor Vehicle Accidents." Proceedings of the Second International Conference on Alcohol and Road Traffic, 1953.
- Lynn, C. W. <u>Drinking-Driving Attitudes</u>, Knowledge and <u>Behavior</u>: An analysis of the first four telephone surveys of the Fairfax Alcohol Safety Action Projects, Final Report, Virginia Highway and Transportation Research Council, Charlottesville, May, 1977. (Sponsored by NHTSA and Virginia Highway Safety Division, Richmond; Subject is ASAP -- Fairfax, Va.)
- McKeachie, W. J., and Charlotte L. Doyle. <u>Psychology</u>. Reading, Massachusetts: Addison Wesley <u>Publishing</u> Co., Inc., 1966.
- Michigan Department of State Police. 1979 Michigan Traffic Accident Facts.
- National Highway Traffic Safety Administration. Factors
  Influencing Alcohol Safety Action Project Police
  Officer's D.W.I. Arrests. Springfield, Virginia.
  National Technical Information Service, 1974 (study conducted by Arthur Young and Company).
- . Factors Influencing Arrests for Alcohol-Related Traffic Violations. Springfield, Virginia, National Technical Information Service, 1974 (study conducted by Dunlap and Associates, Inc.).
- Projects. U.S. Department of Transportation, Washington, D.C., 1979.
- National Safety Council. <u>Accident Facts: 1980 Edition</u>. Chicago, Illinois.
- Nie, Norman H., and others. Statistical Package for the McGraw-Hill, 1975.

- Perrine, M. W. "Identification of Personality, Attitudinal and Biographical Characteristics of Drinking Drivers."

  Behavioral Research in Highway Safety, Vol. 1, No. 4.

  Winter, 1970.
- Pliner, Patricia, and Howard Cappell. "Drinking, Driving, and the Attribution of Responsibility." <u>Journal of Studies on Alcohol</u>, Vol. 38, No. 3, 1977.
- Poppleton, Pamela K., and G. W. Pilkington. "A Comparison of Four Methods of Scoring an Attitude Scale in Relation to Its Reliability and Validity." British Journal of Social and Clinical Psychology, Vol. 3, 1964.
- Records provided from Personnel and Training Division, Police Department, City A.
- Records provided from Planning Department, City B.
- Records provided by Record Division, Police Department, City B.
- Sherif, Carolyn W., Muzafer Sherif and Rodger E. Nebergall.

  Attitude and Attitude Change. Philadelphia: W. B.

  Saunders Company, 1965.
- Smith, H. Ward, and R. E. Popham. "Blood Alcohol Levels in Relation to Driving." <u>Canadian Medical Association</u>
  Journal, Vol. 65, 1951.
- Survey of Police Officers on Drinking Matters. Alcohol Safety Action Project -- Hennepin County, Minneapolis, 1975.
- U.S. Department of Commerce. <u>Population Estimates and Projections</u>. Bureau of the Census Series P-25 No. 835 Issue, November, 1979.
- Wilson, J. E. "Selective Traffic Enforcement Program (STEP)." U.S. Department of Transportation, National Highway Traffic Safety Administration, Washington, D.C., February 18, 1971.
- Zylman, Robert. "Are Drinking-Driving Laws Enforced?"
  Police Chief, Vol. 37, No. 9, September, 1970.