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DOT HS-804 838

INCREASED D.U.I. ENFORCEMENT PROGRAM STOCKTON, CALIFORNIA

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Contract No. DOT HS-5-01194



PRINTED AUGUST 1979
THIRD ANNUAL REPORT

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Springfield, Virginia 22161

Prepared For
U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Washington, D.C. 20590

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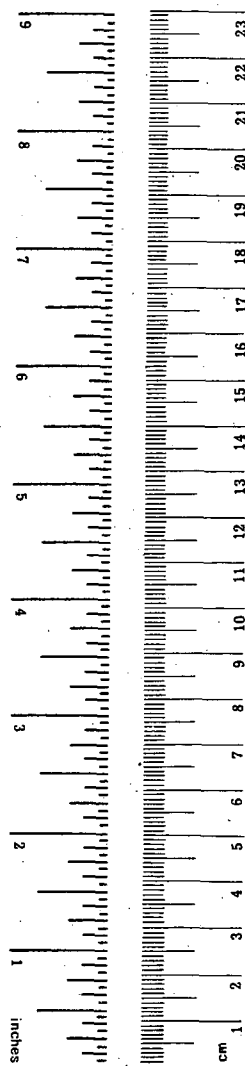
1. Report No. DOT HS-804 838		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Increased D.U.I. Enforcement Program Stockton, California Third Annual Report				5. Report Date	
				6. Performing Organization Code	
7. Author(s) Janet Hause, Edward Chavez, Roseann Hannon				8. Performing Organization Report No.	
9. Performing Organization Name and Address Stockton Police Department University of the Pacific Stockton, California				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. DOT-HS-5-01194	
12. Sponsoring Agency Name and Address U. S. Department of Transportation National Highway Traffic Safety Administration Washington, D. C. 20590				13. Type of Report and Period Covered Annual Report Jan. 1977 - Dec. 1977	
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract <p>The Third Annual Report for the Stockton, California Increased D.U.I. Enforcement Program is a compilation and evaluation of data relating to the enforcement and roadside survey activities during calendar year 1977. The D.U.I. Project applies increased levels of personnel toward the reduction of alcohol related accidents through the detection and apprehension of persons driving under the influence of intoxicants.</p> <p>During 1977 the evaluation design called for an initial three-month period of zero enforcement followed by nine months of enforcement with ten officers working city wide. After the Task Force was reinstated during the second year, alcohol and non-alcohol related collisions were lower than baseline levels, but there was not a statistically significant change.</p> <p>The roadside surveys measuring Blood Alcohol Contents indicated a reduction in the number of persons drinking during Experimental Hours, particularly during the hours of 2 a.m. to 4 a.m.</p> <p style="text-align: center;">NCJRS</p>					
17. Key Words DEC 29 1980 ACQUISITIONS			18. Distribution Statement Document is available to the U.S. public through The National Technical Information Service, Springfield, Virginia 22161		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 152	22. Price

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10:286.



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

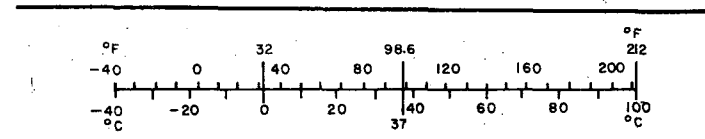
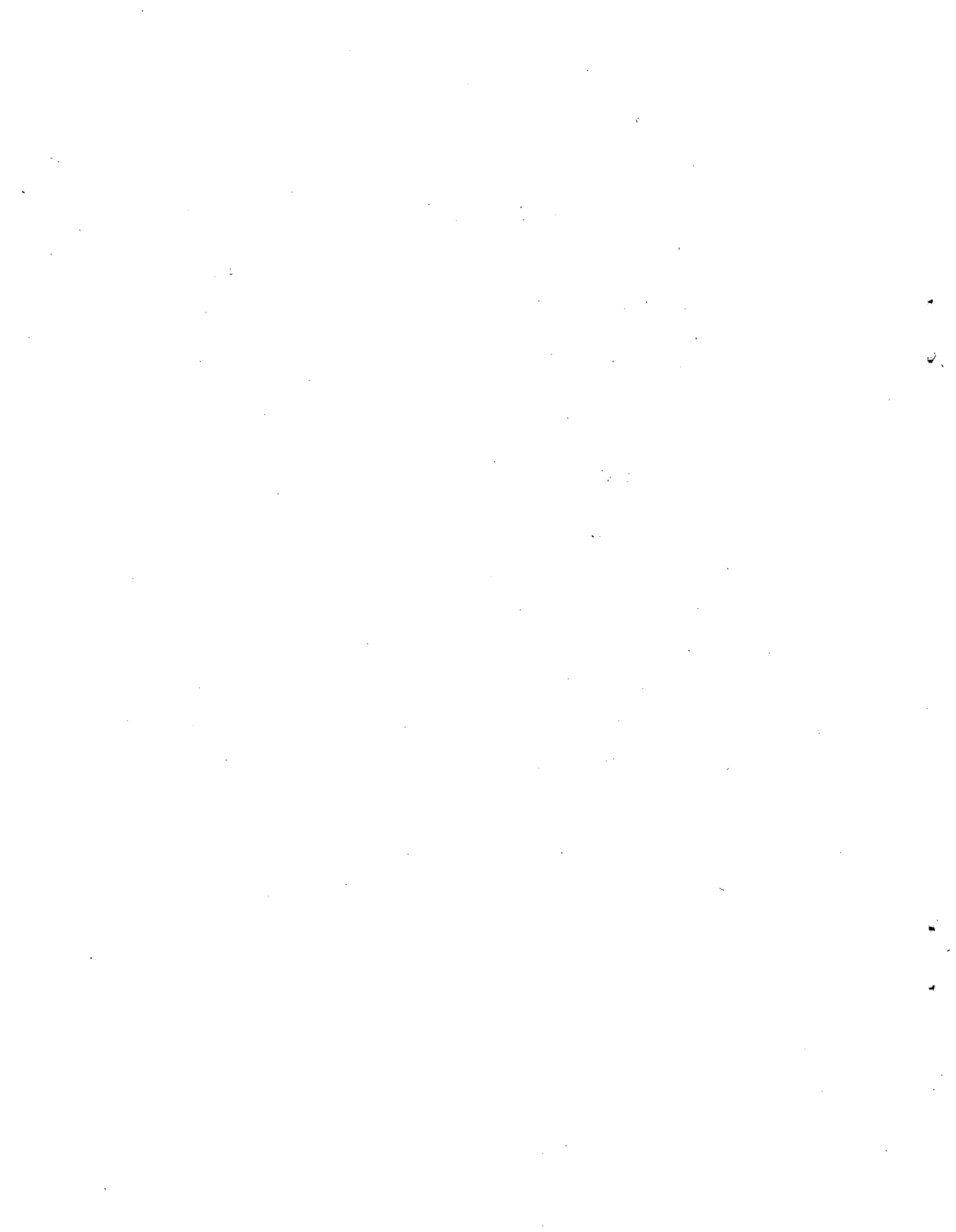


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TECHNICAL SUMMARY

CONTRACTOR Stockton Police Department, Stockton, California	CONTRACT NUMBER DOT-HS-5-01194
REPORT TITLE Third Annual Report	REPORT DATE
REPORT AUTHOR(S) Janet Hause, Edward Chavez, Roseann Hannon	

The objectives of the Stockton Increased D.U.I. Enforcement Project were to: (1) Demonstrate the impact of varying levels of alcohol safety enforcement (Traffic Task Force) upon collisions, blood alcohol concentrations of drivers, and traffic offenses; (2) Determine the cost effectiveness of various levels of enforcement and estimated cost/benefits.

The City of Stockton was divided into two operational areas comparable in collision patterns and demographic data. The hours of extra enforcement were from 8 p.m. to 4 a.m. on Friday and Saturday nights. Additionally, a roadside survey team interviewed approximately 100 drivers on one night per weekend during the enforcement hours.

Sixty-two officers received 40 hours of training in detection and apprehension of intoxicated drivers prior to the first year of enforcement. Because of manning problems during Experiment I, a second group of 20 officers was presented a 24-hour course before the commencement of Experiment II. Other training given in conjunction with this project has been 20 hours for supervisors before enforcement began and then a four-hour refresher seminar for the initial group of officers and a two-hour refresher course for supervisors, both given between Experiment I and II.

During Experiment I (1976), the ten-man Traffic Task Force was assigned specific patrol areas (six months on the East Side and six months patrolling the West Side). January through March, 1977, served as a "return to baseline" period for the evaluation data. The patrols did not work during this period. Experiment I (July through December, 1978) utilized ten one-man units on a city-wide basis for nine consecutive months during 1977.

The Traffic Task Force averaged 1.3 D.U.I. arrests per shift during Experiment I and 2.0 arrests during Experiment II. The patrols made 88 percent of the D.U.I. arrests in the area serving as the Enforcement Area in 1976. The Traffic Task Force tended to concentrate their activities in the Southern section of the city. During Experiment I, 85 percent of the D.U.I. arrests and 76 percent of the traffic citations were issued in the South section of the city. These figures for Experiment II were 91 percent and 84 percent, respectively.

(Continue on additional pages)

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The blood alcohol content data obtained by the roadside surveys showed a decrease in the number of drivers on the city streets between 8 p.m. and 4 a.m. with illegal blood alcohol concentrations from 1975 through 1977.

City-wide collisions decreased significantly from the baseline in Experiment I. When the patrols were removed, the collisions returned to the baseline level. When the Traffic Task Force was reinstated during Experiment II, the collisions once again decreased, but not significantly. The comparison city data showed only Stockton demonstrated a general downward trend in nighttime collisions in 1976.

The total cost per D.U.I. arrest during Experiment I was \$110 and during Experiment II, \$87. The revenue generated by the Traffic Task Force activities in 1976 was \$413,829 and \$398,593 in 1977. The estimated cost benefit ratio for 1976 and 1977 combined was 1.

The evaluation results of Experiment I showed strong support for the hypothesis that the presence of specially trained police could impact drinking driver related activities. The Experiment II results were not as conclusive.

II. BACKGROUND

The drinking driver accounts for 55 percent of the traffic fatalities annually in the United States. In 1975, the societal costs for fatalities caused by the drinking driver was approximately 7.4 billion dollars. In response to the alarming increase in vehicle collision fatalities, the U. S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) implemented the Alcohol Safety Action Programs (ASAP) as a systematic approach to the detection, apprehension, and subsequent processing of the drunk driver. Because of the many facets of these programs, the impact of short-term enforcement within these studies could not be specifically isolated and measured. As a result of the ASAP findings, NHTSA proposed conducting a demonstration program designed to determine the level of initial enforcement required to impact the drinking driver and then specify what levels of enforcement would maintain this impact.

The City of Stockton, California, submitted a proposal bid for the project and was the recipient of the cost reimbursable contract in July, 1975. The objectives of the contract were defined as follows:

1. Demonstrate and document the impact of increased levels of highly visible specialized alcohol safety enforcement on:
 - a. Collisions (specifically alcohol related);
 - b. Proportion of drivers at illegal blood alcohol levels;
 - c. Non-traffic offenses (specifically street crime).
2. Determine the cost effectiveness of utilizing the increased levels of enforcement and derive cost benefit relationships as feasible.

The D.U.I. Enforcement Project was designed to impact the driving population between the hours of 8 p.m. to 4 a.m. Friday and Saturday nights. According to previous studies, these are the time periods considered to be high "drinking and driving" hours. The City of Stockton was not unlike any other jurisdiction in that it was experiencing a continual increase in alcohol related collisions and fatalities. A State Office of Traffic Safety grant funded a one and one-half year S.T.E.P. program (1973-1974) which allowed an even greater awareness and need to combat the drinking driver problem.

The Increased D.U.I. Enforcement contract has provided for a ten-man Traffic Task Force to be deployed according to various evaluation design plans. Initially, the city was divided into geographic enforcement areas based on similar demographic factors such as population, traffic volume, drinking establishments, etc. During the first year, each area was designated as an experimental area for six months and then as the control area for six months. The second year of operations started with three months of zero enforcement followed by nine months of city-wide enforcement with ten officers. The third experimental year will be comprised of six months of no additional enforcement levels. The project will then end with one year of increased enforcement again utilizing ten officers; deployment strategy during this time will have a north/south division (six officers and four officers).

The previous ASAP programs utilized voluntary roadside surveys to determine the impact of the programs. The surveys were typically conducted during a baseline period (prior to enforcement) and then again once each year following the implementation of the program. The Stockton program is the first to utilize the Roadside Survey on a continuous basis to determine demographic data and blood alcohol concentrations of drivers during the enforcement hours.

III. FISCAL AND PERSONNEL REVIEW

The differences in the planned and actual salaries for the current year in the management activity area were due to the number of hours expended toward the D.U.I. Program by the Project Director and his various staff members. A budget revision was submitted for the Project Coordinator to bring that line item expenditure up to actual time being charged to the program for the reporting year. The slight variation in management salary can be accounted for in overtime by staff personnel and survey site adjustments. On a cumulative level, actual expenses in the management area are lower due to the unrealized proposed salary increases, corresponding benefits, and less than planned time allocable to the contract.

The enforcement category indicates a higher overall actual expense for the reporting year than the proposed amount. This is due to the change in deployment strategy during 1977. The design plan did not originally call for the ten-man force which was eventually utilized and which accounted for differences in the salary and equipment charges.

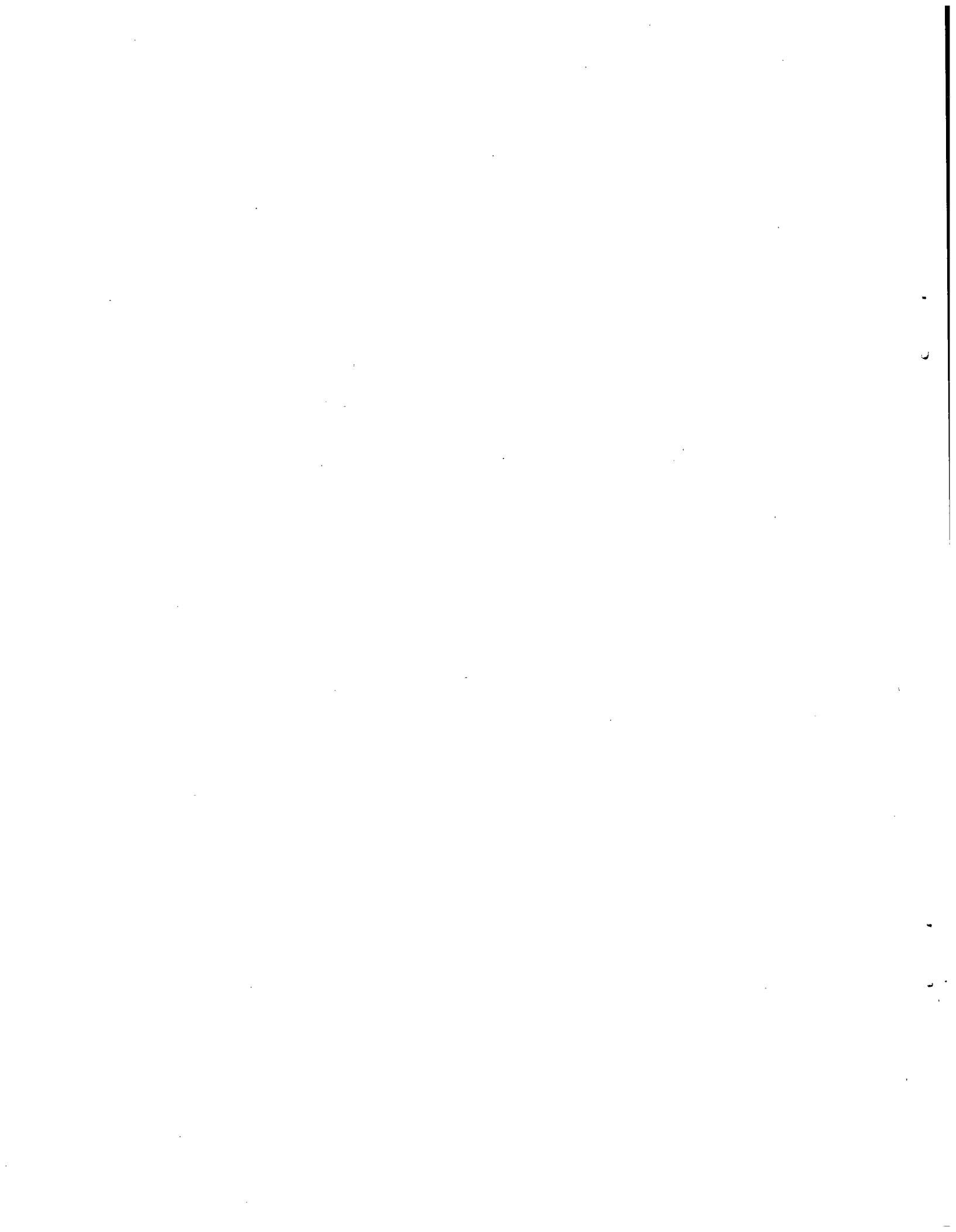
Evaluation activity expenses are generally holding true to proposed estimates. Any differences can be attributed to delays in billing by the University.

YEAR ENDING December 1977

ACTIVITY AREAS	Personnel				Expenditures Incurred					
	Reporting Year				Reporting Year		Prior Year		Cumulative Total	
	Professional		Clerical		Planned	Actual	Planned	Actual	Planned	Actual
	Planned	Actual	Planned	Actual						
Activity #1 - Management										
Salaries	1.5	1.5	1	1	59,951	61,062	47,046	42,842	136,715	128,798
Equipment					-	-	-	-	-	-
Materials					-	-	-	-	-	-
2-III Facilities					-	-	-	-	-	-
Honorarium, S. J. County, Services - A. Young					5,016	5,016	12,746	12,746	27,516	27,516
Travel					2,419	1,444	4,814	2,566	9,902	6,369
TOTAL					67,386	67,522	64,606	58,154	174,133	162,683
Activity #2 - Enforcement										
Salaries	11	11	-	-	107,290	107,730	99,173	108,284	240,768	244,032
Equipment					8,239	12,956	30,688	18,732	38,926	31,688
Materials					-	-	-	-	-	-

YEAR ENDING December 1977

	ACTIVITY AREAS	Personnel				Expenditures Incurred					
		Reporting Year				Reporting Year		Prior Year		Cumulative Total	
		Professional		Clerical		Planned	Actual	Planned	Actual	Planned	Actual
		Planned	Actual	Planned	Actual						
	Facilities					-	-	-	-	2,295	2,295
	Services					-	-	-	-	-	-
	Travel					-	-	-	-	-	-
	TOTAL					115,529	120,686	129,861	127,016	281,989	278,015
8-III	Activity #3 - Evaluation										
	Salaries	1.5	1.5	.6	.6	48,159	35,831	34,031	39,781	105,761	76,756
	Equipment					-	-	-	-	-	-
	Materials					3,642	2,234	2,575	2,479	6,595	4,787
	Facilities					-	-	-	-	-	-
	Services					-	-	-	-	-	-
	Travel					-	-	-	-	-	-
	TOTAL					51,801	38,065	36,606	42,260	112,356	81,543



IV. PERFORMANCE REPORTS

Management

The initial enforcement phase of the Increased D.U.I. Enforcement Project was concluded on December 31, 1976. During this time the Traffic Task Force was deployed in each operational area for six months in order to effectively document and assess any effects. During the first year, management and evaluation staff continually reviewed project progress and made detail plan revisions as necessary to attain the desired objectives.

Calendar year 1977 comprised the second operational phase and included three months of no enforcement level as well as nine months of enforcement with a ten-man force. In addition, the task force was deployed on a city-wide basis rather than being limited to an operational area as in the first year. This strategy was completely different from which had been proposed during the formulation of the program or during the first year. The three-month zero level period was utilized to measure accident trends and their response to the removal of the task force. When data indicated a return to baseline, the increased enforcement levels were applied again.

Throughout the down period and during the enforcement phase, the Project Director and his staff worked in conjunction with the evaluator in deriving a viable design. This involved various revisions and updates to the Detail Plan and corresponding budget. Future plans for enforcement deployment are very tentative at the present time. An anticipated six-month zero-level period is expected for the first six months of 1978; this will again be used as a time to assess and evaluate all that has occurred during the nine months of enforcement. On July 1, 1978, the third experiment will begin and will continue for 12 months.

Enforcement

During the first operational year, the task force officers demonstrated a progressive improvement in their abilities to detect and apprehend persons driving under the influence of intoxicants. Initially, our officers appeared to be restricting the number of traffic stops they were making; this resulted in a proportionately low number of drunk driving arrests. The Project Director, coordinator, and field supervisor emphasized making as many stops possible for any type of moving and mechanical violation. This would give the officer more exposure to the public and the opportunity to come in contact with more possible drunk drivers. Total stops, including field contacts, citations, and drunk driving arrests showed a very definite increase during the course of the year.

The Tables of Key Evaluation Measures illustrate the progress of arrest rates by quarters for the enforcement years.

TABLE IV-1
KEY EVALUATION MEASURES

KEY EVALUATION MEASURES	REPORT YEAR - CY 1977			
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Officers Completing D.U.I. Training:				
-- Actual	62			
-- Planned	62			
Average Number of D.U.I. Arrests Per Man Per Shift:				
-- Actual		1.88	2.04	2.12
-- Planned		2	2	2

KEY EVALUATION MEASURES	PRIOR YEAR - CY 1976			
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Officers Completing D.U.I. Training:				
-- Actual			20	
-- Planned			20	
Average Number of D.U.I. Arrests Per Man Per Shift:				
-- Actual	1.16	1.33	1.15	1.45
-- Planned	2	2	2	2

KEY EVALUATION MEASURES	CALENDAR YEAR 1975			
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Officers Completing D.U.I. Training:				
-- Actual				58
-- Planned				65
Average Number of D.U.I. Arrests Per Man Per Shift:				
-- Actual				
-- Planned				

During the six-month "gearing-up" phase in 1975, the Police Department Training Officer presented a 40-hour D.U.I. course to the qualified volunteer officers. The selection of the personnel eligible to qualify for the D.U.I. Traffic Task Force was done on the basis of the number of citations written, number of D.U.I. arrests, general street crime arrests, the officer's seasoning, and his ability to work alone. A computer run was made on all officers who worked the Field Operations Division during the past three years showing the number of citations issued while working patrol. An average number of citations per man per six-month period was computed, and those officers attaining this number were initially qualified. A 20-hour D.U.I. school for our supervisors and command personnel was also conducted during this period.

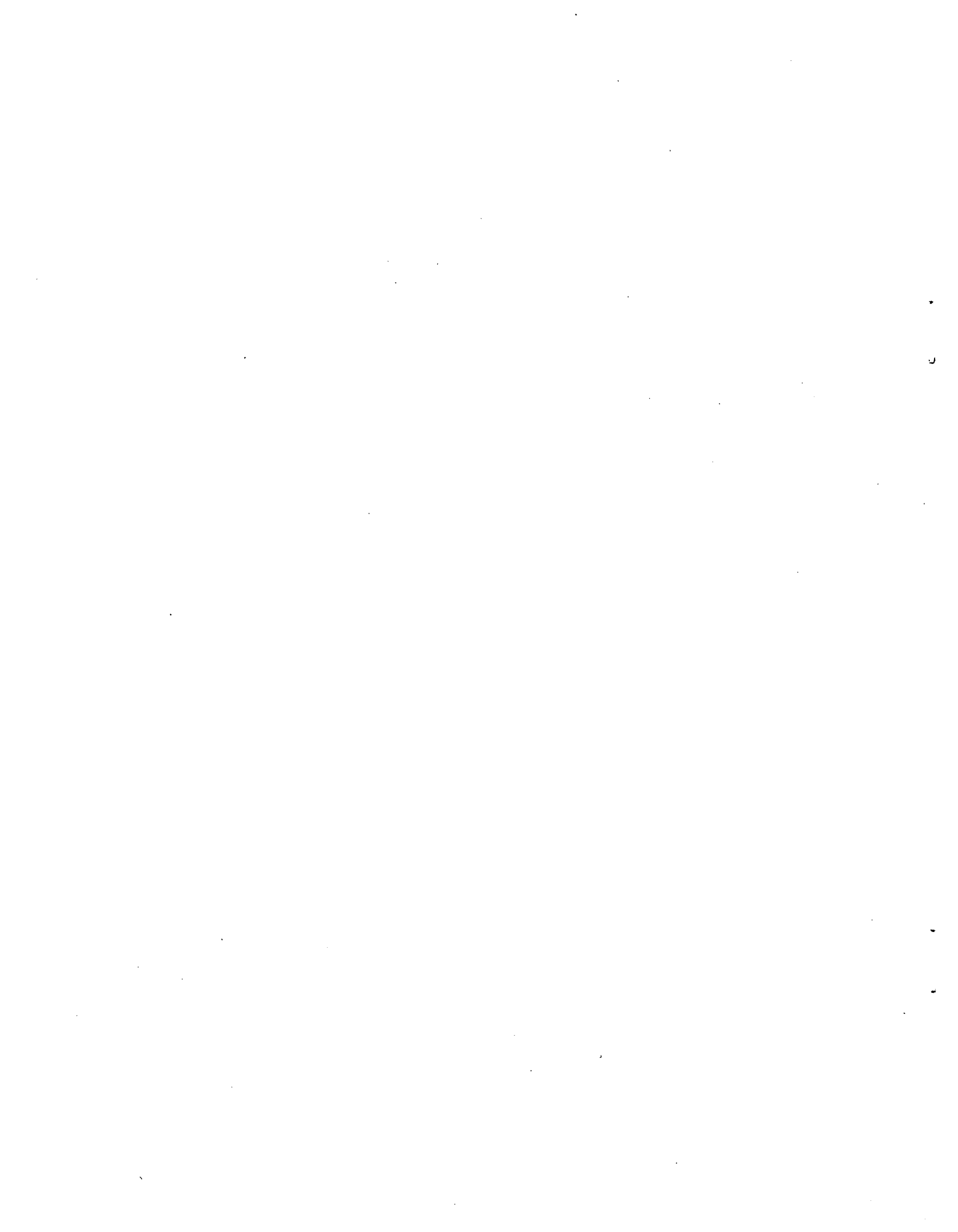
Due to staggered days off along with various other factors, we experienced a lack of volunteers for the program during the first year. A request for the selection and training of additional personnel was submitted to and approved by our Contract Technical Manager.

The criteria for selection was the same as had been established for the original group of volunteers. The training, however, was structured differently than the 40-hour Michigan State course presented to the initial group. The time factor and the necessity to have the additional personnel available in the shortest time possible prevented us from the extended training sessions.

Four officers from the initial group who demonstrated their abilities in D.U.I. detection and apprehension with good productivity were selected as training officers for the additional men. The trainees were assigned to work an eight-hour D.U.I. shift with the trainers during which time the successful techniques and procedures could be observed. The different phases of the psychophysical testing were covered as well as the reports and report content required while working D.U.I. enforcement.

The hours which the new group of officers worked and the productivity statistics for these personnel were tabulated separately from the original group. As in the past, all data pertinent to D.U.I. production was compiled by the Police Department and turned over to the University of the Pacific. Generally speaking, the original group of officers made more field contacts, total stops, and arrested more persons for D.U.I. per man than the second group.

It was proposed and approved that the new group of officers should receive some classroom training to assist them in bringing their competency levels up to that of the original group. A modified course of instruction to the training manual compiled at Michigan State University for the National Highway Traffic Safety Administration's contract DOT-HS-334-3-645 was presented. This included detection and apprehension clues, psychophysical testing, and a controlled drinking experiment. In addition to this, the first group of task force officers were presented a four-hour refresher course in which there was open discussion on ideas and demonstrated successful techniques. Both of the classroom sessions presented during the three-month down period have been considered to be extremely beneficial to our enforcement effort. During the second year there was no difference in productivity between the two groups, and the performance estimates were surpassed by the Task Force as a group.



V. EVALUATION RESULTS

1. Objectives and Evaluation Questions

This impact study examines the results of two experiments on the effectiveness of a highly-trained, ten-person D.U.I. patrol (Traffic Task Force) on decreasing the number of drinking drivers in a city the size (120,000) of Stockton, California. The major characteristics of interest are the alcohol related collision patterns, the non-alcohol related collisions, the blood alcohol concentration of drivers at roadside surveys, the D.U.I. and non-D.U.I. traffic arrests, and the cost to achieve these results.

The evaluation questions to be included in the impact study are as follows:

1. Will the Traffic Task Force activity increase the number of D.U.I. and non-D.U.I. traffic arrests?
2. Will the presence of the Traffic Task Force decrease the blood alcohol concentration level of drivers at roadside surveys?
3. Will the presence of the Traffic Task Force decrease recidivism of those people arrested for D.U.I. in Stockton?
4. Will the presence of the Traffic Task Force decrease alcohol related and non-alcohol related collisions?
5. Will the presence of the Traffic Task Force decrease the cost of D.U.I. arrests?

2. Methodology

The Interim Report will summarize the results of two separate experiments. Experiment I was conducted during Calendar Year 1976 and Experiment II during 1977. Experiment III will begin in July, 1978.

Data relevant to the measurement of impact of the Traffic Task Force was compiled for the three years, 1973 to 1975, previous to the implementation of the experiments. Data was broken down into three time periods, Experimental Time, 8 p.m. to 4 a.m. on Friday and Saturday; Control Time, 8 p.m. to 4 a.m. on Sunday through Thursday; and Daytime, 4:01 a.m. to 7:59 p.m. on Sunday through Saturday. Table V-1 shows the breakdown of the three time periods by days and hours.

The key evaluation measures for both Experiment I and Experiment II are:
(1) Changes in D.U.I. arrests (drinking driving arrests*) and other traffic

*In the State of California, a person is presumed to be driving under the influence of an intoxicant if his/her blood alcohol content is .10 or more (V.C. 23126).

TABLE V-1
Breakdown of Time Periods

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight 4:00 a.m.	Experi- mental Time	Control Time					Experi- mental Time
4:01 a.m. Noon 7:59 p.m.	Daytime						
8:00 p.m. 11:59 p.m.	Control Time					Experimental Time	

offenses; (2) Changes in blood alcohol concentrations of drivers during the high drinking driver hours, and (3) Changes in collisions, specifically alcohol related.

The source of the collision and traffic arrest data was the computerized Traffic Records System of the City of Stockton. The data was obtained on magnetic tapes. Data processing done by the evaluator was accomplished primarily through the use of the Statistical Package for the Social Sciences, version 5.01.051.

The 1973 and 1974 data for alcohol related collisions, non-alcohol related collisions, D.U.I. arrests, and traffic citations followed the same trend as the 1975 data. Analysis of the 1976 and 1977 data was compared only to 1975.

The data on recidivism and cost benefits was supplied to the evaluator by the Stockton Police Department staff. Because of the contract costs involved in generating estimates of the 1976 revenue, it was not feasible to create actual cost data for the 1977 revenue analysis. The 1977 revenue data uses the same cost base as the 1976 data.

Roadside Survey

As mentioned previously, a key evaluation measure is the amount of alcohol consumed by drivers on the city streets during the enforcement hours. This data is obtained through voluntary roadside surveys conducted on one weekend night, each weekend of the month. The surveys use Alcohol Screening Devices (ASD - portable breath testing machines). The baseline data for the blood alcohol concentration (B.A.C.) was obtained from 1,200 interviews conducted from October through December, 1975. The roadside surveys will continue through the duration of the Enforcement Phase.

The roadside survey data is collected by a team of interviewers on either Friday or Saturday night from the hours of 8 p.m. to 4 a.m. Each survey night consisted of approximately 120 interviews over six pre-selected survey sites. There are a total of 28 survey sites distributed throughout the city. These

sites were chosen on the basis of three factors: (1) Collision experience; (2) Traffic volume, and; (3) Ability of vehicles to safely leave and enter the flow of traffic. In addition to the blood alcohol concentrations provided by the roadside surveys, the evaluator was able to gather attitude and demographic data which reflect characteristics of the driving population during the enforcement hours. (For a detailed description of the procedures for the roadside survey, refer to the first Annual Report.) The data obtained during the interviews is keypunched onto computer cards by the evaluation staff and processed through the use of the Statistical Package for the Social Sciences, version 5.01.051.

Experimental Design

Table V-2 shows the Enforcement Design for Experiments I and II.

TABLE V-2

<u>EXPERIMENT I</u>	<u>DEPLOYMENT</u>
January through June, 1976	10 Patrols in East Area
July through December, 1976	10 Patrols in West Area
NO ENFORCEMENT	
January through March, 1977	No Patrols
 <u>EXPERIMENT II</u>	
April through December 1977	10 Patrols City Wide

EXPERIMENT I

During Experiment I (1976), ten one-man patrols (Traffic Task Force) were deployed on Friday and Saturday nights between the hours of 8 p.m. and 4 a.m. The City of Stockton was divided into two operational areas, an East Area and a West Area. The division of the city into two areas was based upon analysis of collision patterns and demographic data. In addition, four cities within the State of California were used as Comparison Sites for collision patterns. The Comparison Sites were picked by NHTSA and matched on size, population, and collision similarities to Stockton.

During the first six months of 1976, the Traffic Task Force was assigned to the East Area, Enforcement Area. During this period, the West Area served as a Comparison Area. During the second six months of 1976, the areas were reversed; the West Area served as the Enforcement Area and the East Area became the Comparison Area. The Traffic Task Force officers were not assigned beat areas per se. They were free to patrol anywhere within the designated Enforcement Area.

EXPERIMENT II

During the first three months of 1977, the Traffic Task Force did not patrol. This three-month period was used as a "return to baseline" to allow the alcohol and non-alcohol related collisions to return to the pre-enforcement level. Experiment II began in April, 1977, and continued through December 31, 1977. As in the first experiment, three time periods were used to analyze the data, Experimental Time, Control Time, and Daytime.

The findings of Experiment I showed the Traffic Task Force clustered their arrests in the central downtown business district. The clustering was divided between the West Area and the East Area. It was felt that it would be beneficial to replicate Experiment I with the exception that, due to the clustering of arrests, the east-west dividing line would be discarded for the purposes of patrol assignment.

Ten one-man units were assigned to patrol the city as a whole during the Enforcement hours, 8 p.m. to 4 a.m. on Fridays and Saturdays for the duration of 1977, nine months. The data for the key evaluation measures were analyzed in the same manner as during Experiment I, three time periods, the east-west areas, and the city as a whole. The Results Section contains a brief summary of the results of both experiments.

As in Experiment I, the patrols concentrated their arrest activity in the Central City. It was hypothesized that, if a significant impact did occur in the central area, analysis of the data by the east-west areas did not allow for a fine enough discrimination to make any changes evident. Therefore, NHTSA and the evaluators felt additional analyses were necessary. In order to adequately assess the impact of the Traffic Task Force, two additional areas were defined, North and South (South includes references to the downtown central area). The new analyses were performed for the following key evaluation measures for both Experiment I and Experiment II:

1. D.U.I. arrests
2. Traffic citations
3. B.A.C.'s and D.U.I.'s at the Roadside Survey
4. Alcohol and non-alcohol related collisions

The new data analysis strongly indicated an impact on the evaluation measures in the south part of the city. Because of the south city impact, it is no longer feasible to analyze evaluation data on the basis of either of the city divisions (West vs. East or North vs. South). Additionally, the data on the place of residence of those persons arrested for D.U.I. by the Traffic Task Force supports the city-wide analysis. The place of residence was dispersed throughout the city. For this reason, the result section will concentrate on a city-wide analysis for both Experiment I and Experiment II.

3. Evaluation Results

A. Traffic Task Force Activity

1. D.U.I. Arrests

The analysis of the D.U.I. arrests involved comparisons of D.U.I. arrest activity during Experiment I (1976) and Experiment II (1977) with the baseline year, 1975. The analysis of the D.U.I. arrests made during the Experimental hours for both Experiment I and Experiment II showed an increase in arrest rates.

Table V-3 summarizes the average monthly TTF activities for Experiment I and Experiment II.

TABLE V-3

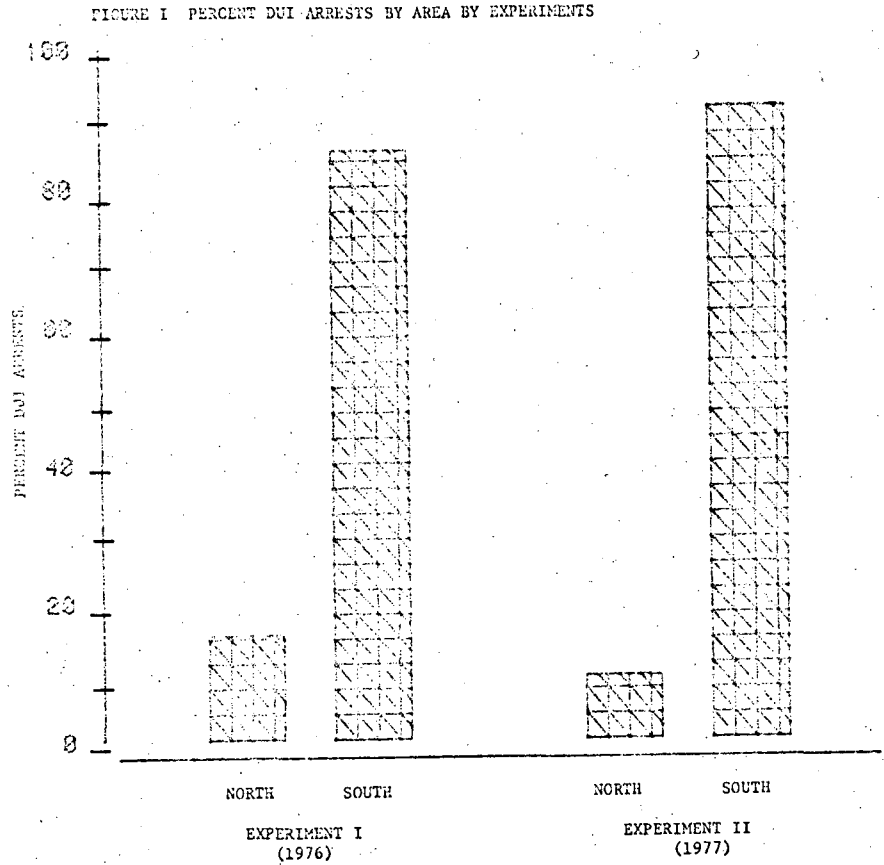
TRAFFIC TASK FORCE AVERAGE MONTHLY ENFORCEMENT ACTIVITIES

	1976 (12 Months)	1977 (9 Months)
Man Hours	707	708
D.U.I. Arrests	110	174
Average D.U.I. Per Man	1.28	2.01
Traffic Citations	388	321
Avg. Citations/Man Hour	.55	.45
Field Contacts	908	1,166
Average Contacts/ Man Hour	1.28	1.65
Stops	1,426	1,689
Stops/Man Hour	2.02	2.38

During Experiment I, the TTF averaged 110 arrests per month for a total of 1,324 arrests over the 12-month period in 1976. This represented an increase of 521 percent in D.U.I. arrests over the same time period in 1975. The Traffic Task Force made 92 percent of their arrests in the East Area when it was serving as the Enforcement Area. During the second six months of Experiment I, they made 84 percent of their D.U.I. arrests in the West Area, then serving as the Enforcement Area. The D.U.I. arrests were concentrated in the South Area of the city. Eighty-five percent of the total TTF drunk driving arrests were made in the South Area and 15 percent of the arrests were made in the North Area.

During Experiment II, the D.U.I. arrest concentration was even more dramatic. Thirty-seven percent of the arrests were made in the West Area and 63 percent in the East Area. The South Area arrests accounted for 91 percent of the total D.U.I. arrests

during the nine-month enforcement period in 1977. The average monthly number of D.U.I. arrests during 1977 was 174 with a yearly total of 1,566 D.U.I. arrests. This arrest rate represents a 951 percent increase over the same nine-month period in 1975. Figure V-1 shows a bar graph of the percent of arrests for the North-South divisions.



During Experiment I, the Traffic Task Force accounted for 90 percent of the total D.U.I. arrests made during the Experimental Time. This figure in 1977 was 91 percent. The high percentage of TTF related D.U.I. arrests excludes the necessity to separate the TTF arrests from all other D.U.I. arrests during the Experimental Time period for the purpose of data analysis.

Table V-4 summarizes the chi-square analyses for the D.U.I. arrest data. The D.U.I. arrests increased significantly over all parts of the city during the Experimental Time for both Experiment I and Experiment II. As would be expected, the trained TTF officers contributed to an increase in D.U.I. arrests during those time periods they were working Regular Patrol. There was a 26 percent increase in D.U.I. arrests during all other time periods from 1975 to 1976. The arrest increase in 1977 represents a 32

percent increase from 1975 during all other time periods. The B.A.C. of drivers arrested by the TTF for D.U.I. averaged .159.

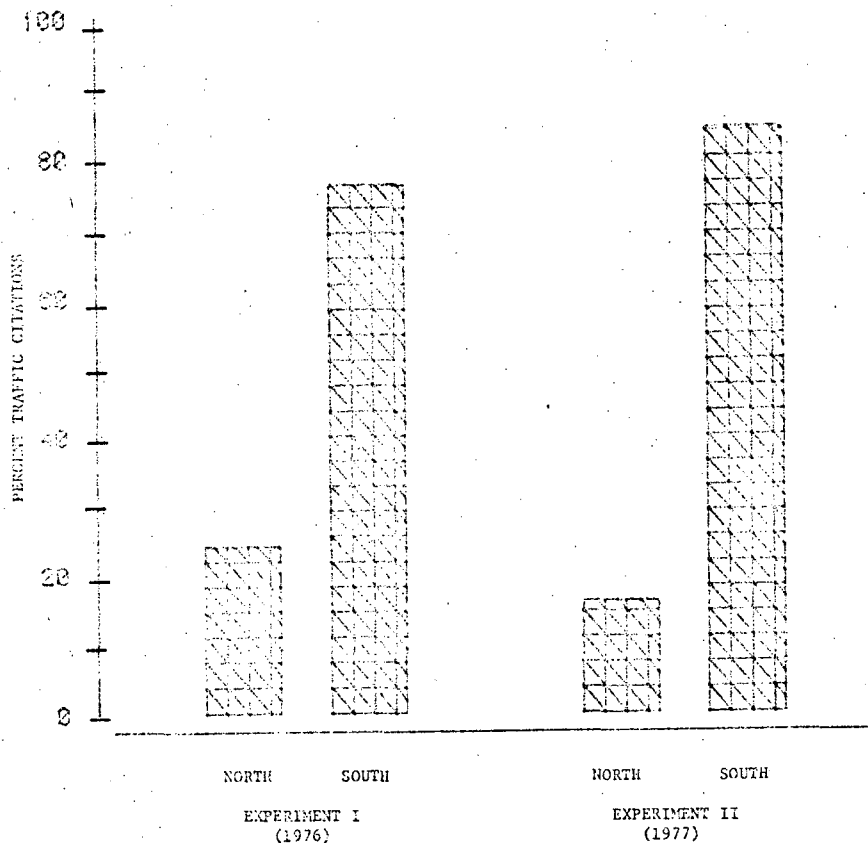
TABLE V-4
SIGNIFICANT CHI-SQUARES FOR D.U.I. ARREST DATA

CITY DIVISIONS	EXPERIMENT I					
	January - June			July - December		
	EXPERIMENTAL	CONTROL	DAYTIME	EXPERIMENTAL	CONTROL	DAYTIME
West	Increase**	Increase**	N. S.	Increase**	N. S.	N. S.
East	Increase**	Increase**	N. S.	Increase**	N. S.	N. S.
North	Increase**	N. S.	N. S.	Increase**	N. S.	N. S.
South	Increase**	Increase**	N. S.	Increase**	N. S.	N. S.
City Wide	Increase**	Increase**	N. S.	Increase**	N. S.	N. S.

CITY DIVISIONS	EXPERIMENT II		
	April - December		
	EXPERIMENTAL	CONTROL	DAYTIME
West	Increase**	Increase*	Increase**
East	Increase**	Increase**	Increase*
North	Increase**	Increase**	Increase**
South	Increase**	Increase**	Increase**
City Wide	Increase**	Increase**	Increase**

In order to determine the general deterrent effect of the TTF, the location of the actual D.U.I. arrest was compared to the location of residences of those persons arrested. During 1976, 18 percent of persons arrested lived in the North Area, 53 percent lived in the South Area, and 29 percent lived out of the city limits. The 1977 residence data is similar to the 1976 data; 19 percent lived North, 57 percent lived South, and 23 percent lived out of town. Figure V-2 shows the place of residence for the D.U.I.'s.

FIGURE 2 PERCENT TRAFFIC CITATIONS BY AREA BY EXPERIMENTS



It should be noted that beginning December, 1977, the local California Highway Patrol (C.H.P.) office initiated a drinking driver enforcement program. This program will continue through December, 1978. The local C.H.P. arrest activities during the Experimental hours will be discussed in the 1978 report. The C.H.P.'s activities are being monitored by the Stockton Project.

Detailed data associated with D.U.I. arrest activities are located in the Appendix. Table A shows the summary of TTF activities during Experiment I by month. Table B shows the same data for Experiment II. Table C shows the chi-square analysis for Experiment I. Table D shows the same data for Experiment II. Table E shows the chi-squares for the city-wide analysis. Table F shows the number of D.U.I. arrests by city divisions and quarterly breakdowns.

2. Recidivism

During Experiment I, 112 persons or 5.3 percent of the persons arrested for D.U.I. by either the TTF or Regular Patrol were rearrested for D.U.I. Twelve persons or .57 percent were arrested three or more times, and two persons were arrested five times.

The Experiment II results showed a total of 2,537 D.U.I. arrests; 1,566 were made by the TTF. Seven percent of the people arrested in 1977 were rearrested. Of those persons arrested for the first time during 1977, 59 or .6 percent had multiple arrests during that year. Tables G and H in the Appendix shows the probability of rearrest since 1976. A person arrested since the beginning of the project has a .1181 probability of being arrested by December, 1977. The average time between arrest and court date is one month. The range is from the same month as of arrest to eight months following arrest.

Table V-5 shows the duration between first arrest and second arrest. The majority of people are rearrested more than 12 months after their first arrest.

TABLE V-5
TIME BETWEEN 1st and 2nd ARREST

Time	1st Arrest 1976		1st Arrest 1977	
	Number Rearrested	Percent of Rearrests	Number Rearrested	Percent of Rearrests
Same Month	0	0	6	5.3
1 Month Later	0	0	22	19.5
2 Months Later	0	0	28	24.8
3 Months Later	0	0	17	15.0
4 Months Later	3	2.6	13	11.5
5 Months Later	4	3.5	11	9.7
6 Months Later	3	2.6	5	4.4
7 Months Later	6	5.3	9	8.0
8 Months Later	8	7.1		
9 Months Later	6	5.3		
10 Months Later	8	7.1		
11 Months Later	11	9.7		
12 Months Later	10	8.8		
More than 12 Months	54	47.8		

3. Traffic Citations

The analysis of the traffic citations involved comparisons of citation activity during Experiment I and Experiment II with the baseline year, 1975. The TTF significantly increased the number of traffic citations issued during the Experimental hours. During 1976, this activity represented a 99 percent increase over the previous year 1975.

During the first six months of Experiment I, 73 percent of the traffic citations were issued in the East Area (Enforcement Area)

and 27 percent in the West or Comparison Area. When the Patrol Areas were reversed during the second half of Experiment I, 76 percent were issued in the West Area (Enforcement Area) and 24 percent in the East or Comparison Area. The TTF issued 76 percent of their traffic citations in the South Area of the city and 24 percent in the North Area during 1976.

The Experiment II enforcement period showed a less significant increase in traffic citations. There were 60 percent more traffic citations issued in 1977 than were issued in 1975. During Experiment II, the Traffic Task Force was not confined to a section of the city. The analysis of the four city divisions showed that there were 62 percent of the citations issued in the West Area and 38 percent issued in the East Area. The Traffic Task Force issued 16 percent of the citations in the North Area and 84 percent in the South Area.

Table V-6 shows the summary of chi-squares for the traffic citations.

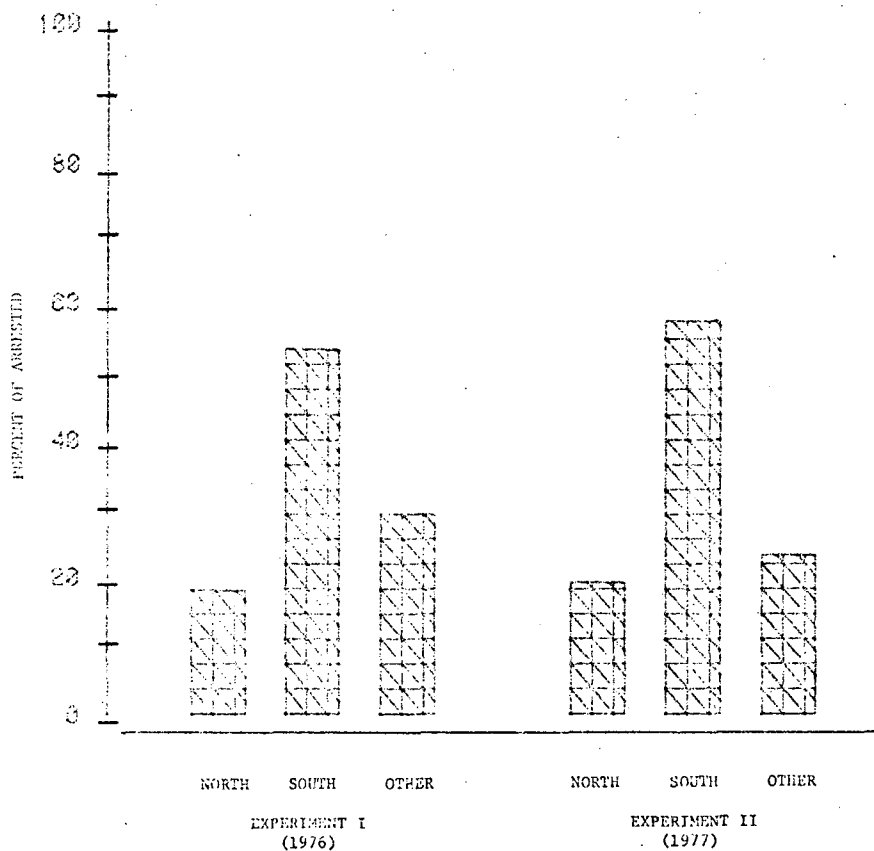
TABLE V-6
CHI-SQUARE RESULTS FOR TRAFFIC CITATIONS

CITY DIVISIONS	EXPERIMENT I					
	January - June 1976			July - December 1976		
	EXPERIMENTAL	CONTROL	DAYTIME	EXPERIMENTAL	CONTROL	DAYTIME
West	Increase**	Increase**	Decrease**	Increase**	N. S.	Increase**
East	Increase**	N. S.	Decrease**	Increase**	Increase**	Increase**
North	Increase**	Increase**	Decrease**	Increase**	Increase**	Increase**
South	Increase**	N. S.	Decrease**	Increase**	Increase**	Increase**
City Wide	Increase**	Increase*	Decrease**	Increase**	Increase**	Increase**

CITY DIVISIONS	EXPERIMENT II		
	April - December 1976		
	EXPERIMENTAL	CONTROL	DAYTIME
West	Increase**	Increase**	Increase**
East	Increase**	Decrease**	Decrease**
North	Increase**	Increase**	Decrease**
South	Increase**	Decrease**	Decrease**
City Wide	Increase**	N. S.	Decrease**

Figure V-3 shows the percent of traffic citations by areas for Experiment I and II.

FIGURE 3 RESIDENCY OF DUI'S ARRESTED BY TRAFFIC TASK FORCE BY AREA BY EXPERIMENT



Traffic citations increased in all parts of the city for both Experiment I and Experiment II during the Experimental Time Period. The Control Time showed increases for Experiment I but not for Experiment II. The Daytime city-wide traffic citations showed decreases during the first half of Experiment I and increases during the second six months. The Experiment II results showed Daytime citations to be significantly less than during baseline. The period of no enforcement, January through March, 1977, showed increases during the Experimental Time in all parts of the city.

Table I in the Appendix shows the summary of the chi-square results for Experiment I. Table J shows the same data for Experiment II. Table K shows the chi-square results for the city-wide analysis. Table L shows the actual number of traffic citations for 1975 through 1977.

The summary of the Traffic Task Force activities shows that the Traffic Task Force did increase the number of D.U.I. arrests and traffic citations when compared to the baseline year, 1975. During Experiment I, there was an average of 1.3 arrests per man per shift. Experiment II increased the arrest rate to 2.0 arrests per man per shift. The traffic citation data indicates 3.6 traffic citations issued per man per shift during Experiment I and 4.2 traffic citations during Experiment II.

During Experiment II, the D.U.I. arrests were more evenly divided between the West and East Area. Sixty-three percent of the arrests were made in the East Area and 37 percent in the West Area. The analysis of D.U.I. arrests by the West and East Areas did not accurately portray the patrol activity. The patrols tended to concentrate their arrest activity in the southern part of the city. Seventy-six percent of the arrests were made in the southern part in 1976 and 84 percent in 1977. The traffic citation data reflects the same patrol strategy as the D.U.I. arrests. During Experiment I, 75 percent of the citations were issued in the Enforcement Area. An analysis of the North/South division showed 76 percent of the traffic citations were issued in the South Area. This South figure for Experiment II is 84 percent.

Discussion

The patrol strategy for Experiment I involved placing the Task Force in one-half of the city during the first six months of the year and then switching the patrols to the other half of the city. The patrols made 88 percent of the D.U.I. arrests in the area serving as the Enforcement Area.

The North-South arrest data shows that even though the patrol strategies called for a city-wide patrol area, the Traffic Task Force was actually concentrating the arrests in a small section of the city. The concentrated patrol area did not change from Experiment I to Experiment II.

The decrease in traffic citations issued by the Traffic Task Force is due to the evaluator stressing field contacts and D.U.I. arrests to increase arrest productivity. As a result, the officers concentrated patrol activities on contacts and arrests and issued fewer citations for minor violations, such as mechanical violations.

B. Roadside Survey Data

The roadside survey data of most interest involves the mean Blood Alcohol Concentrations (B.A.C.) and number of drivers over the legal limit (.10) on the city streets during the hours when the Traffic Task Force is patrolling. The roadside survey B.A.C.'s and .10's or above were collected for the baseline period of October through December, 1975. The data for the two calendar years 1976 and 1977 were compared to the baseline period.

Table V-7 shows the mean B.A.C.'s by West and East Areas for the operational periods. At the time of this report, B.A.C. data was not available for the North-South city divisions.

TABLE V-7
MEAN B.A.C. BY AREA, BY TIME PERIODS

	<u>WEST</u>	<u>EAST</u>	<u>CITY WIDE</u>
Oct.-Dec. 1975	.029	.031	.030
Jan.-June 1976	.024	.028	.026
July-Dec. 1976	.028	.026	.027
Jan.-March 1977	.026	.024	.025
April-Dec. 1977	.027	.027	.027

The two-way ANOVA showed the West Area decreased mean B.A.C.'s during the first six-month period of 1976 with a return to the baseline level during the next year and one-half. The East Area data showed a gradual decrease in B.A.C.'s from baseline throughout the first year and a return to baseline during the last nine months of 1977. The city-wide analysis shows the same results as did the East Area data.

The evaluators felt that the B.A.C. data does not portray an accurate picture of the drinking patterns. A high B.A.C. reading will distort the mean of the sample. The actual number of persons over the legal limit would be more indicative of the drinking population.

Table V-8 shows the proportion of .10's or above at the Roadside Survey for the baseline and operational periods.

Table V-9 shows the chi-square results for comparisons against the baseline period.

The results of the four city divisions (North, South, West, East) do not clearly show a consistent impact on .10's or above at the Roadside Survey. On the other hand, the city-wide analysis does show a significant impact on .10's or above across all months except July through December 1976. A chi-square analysis of the proportion of .10's distributed across the enforcement hours (8 p.m. to 4 a.m.) shows a slight decrease in the number of .10's during the hours of 2 a.m. to 4 a.m. during 1976 and a significant decrease ($\chi^2 = 5.49$; $p < .05$) for the same hours in 1977. This data suggests that the greatest impact on the drinking driver is occurring between 2 a.m. and 4 a.m.

TABLE V-8

PROPORTION OF .10'S OR ABOVE AT ROADSIDE SURVEY

	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>	<u>CITY WIDE</u>
Oct.-Dec. 1975	9.2	8.9	7.4	10.3	9.0
Jan.-June 1976	6.1	7.8	4.8	8.5	6.9
July-Dec. 1976	7.4	7.2	7.0	7.6	7.3
Oct.-Dec. 1976	6.8	6.5	6.8	6.5	6.7
Jan.-March 1977	6.6	5.4	4.9	7.1	6.1
Apr.-Dec. 1977	5.6	6.3	4.6	6.8	5.9
Oct.-Dec. 1977	6.5	5.8	4.1	8.1	6.2

TABLE V-9

CHI-SQUARE RESULTS FOR .10'S COMPARISON AGAINST OCTOBER-DECEMBER 1975

COMPARISON PERIODS	WEST AREA	EAST AREA	NORTH AREA	SOUTH AREA	CITY WIDE
January-June 1976	Decrease*	N. S.	N. S.	N. S.	Decrease*
July-December 1976	N. S.	N. S.	N. S.	N. S.	N. S.
October-December 1976	N. S.	N. S.	N. S.	Decrease*	Decrease*
January-December 1976	Decrease*	N. S.	N. S.	N. S.	Decrease*
January-March 1977	N. S.	Decrease*	N. S.	Decrease*	Decrease**
April-December 1977	Decrease**	N. S.	Decrease*	Decrease**	Decrease**
October-December 1977	N. S.	N. S.	Decrease*	N. S.	Decrease*

Table M in the appendix shows the mean B.A.C.'s by weeks for 1975 through 1977. Table N shows the same data for the .10's. Table O shows the breakdown of B.A.C. frequencies for the four city divisions. Table P shows the significant chi-squares for the .10's by the four city divisions.

Discussion

The results of the roadside survey support the hypothesis that the presence of the Traffic Task Force would have an impact on the drinking driver. There has been a reduction in the number of persons drinking and driving during the Experimental hours, particularly during 2 a.m. to 4 a.m. It has been suggested that the decrease in .10's or above at the roadside survey may be the result of an increase in frequency of intoxicated persons refusing to participate in the survey. The roadside survey summary located in the Appendix shows that the refusal rate (includes previous participants and out of county residents) has remained relatively stable since the beginning of the project. During the baseline period, 5.6 percent did not participate. This percentage change would not significantly influence the proportion of .10's at the survey.

C. Collision Results

1. West-East Analysis

The analysis of the collisions as described in the Detail Plan required the analysis to include a West-East city division analysis. The West-East analysis for Experiment I and Experiment II during the Experimental Time period showed equivocal results.

The Experiment I (1976) results showed that the East Area had a decrease in collisions that could be attributed to the presence of the Traffic Task Force. During the first six months of 1976, the East Area (Enforcement Area) alcohol and non-alcohol related collisions decreased significantly from the baseline level. The West Area (Comparison Area) showed decreases in only non-alcohol related collisions during this time period. When the West Area became the Enforcement Area (second six months of 1976) both the alcohol and non-alcohol related collisions were not significantly different than during baseline. The East Area alcohol and non-alcohol related collisions also returned to the baseline level.

The Traffic Task Force ceased patrolling during January through March 1977. During this "return to baseline" period, total collisions in both the West Area and the East Area did return to the 1975 level.

The Experiment II results did not show an impact of the Traffic Task Force for the West-East comparisons. The West Area did not show changes from baseline for either alcohol or non-alcohol related collisions. The East Area showed a decrease only in non-alcohol related collisions. There were no decreases in alcohol related collisions.

2. North-South Analysis

As mentioned previously, a North-South analysis was performed on the evaluation data because of the concentration of Traffic Task Force activities in the central and southern parts of the city. The North-South analysis showed results similar to the West-East analysis.

The Experiment I data showed a decrease in both the North and South for alcohol and non-alcohol related collisions during the first six months of 1976. The alcohol related collisions returned to the baseline level during the second six months in both areas.

The data for the "return to baseline" period showed a significant increase in alcohol related collisions in the North Area and no significant changes in the South Area. The Experiment II data showed no statistically significant change in either alcohol or non-alcohol related collisions for both the North Area and the South Area.

Table V-10 summarizes the results for the chi-squares for Experiment I.

TABLE V-10

Significant chi-square results for Experiment I for the West-East city division and the North-South city division.

WEST-EAST COMPARISON

CITY DIVISIONS	JANUARY - JUNE			JULY - DECEMBER		
	EXPERIMENTAL	CONTROL	DAYTIME	EXPERIMENTAL	CONTROL	DAYTIME
WEST	Non A/R Decrease* 34%	N. S.	N. S.	N. S.	Non A/R Decrease 40%	N. S.
EAST	A/R-Non A/R Decrease* 33%	N. S.	Non A/R Increase* 12%	N. S.	Non A/R Decrease* 36%	N. S.
CITY-WIDE	A/R-Non A/R Decrease**	N. S.	N. S.	Non A/R Decrease*	Non A/R Decrease	N. S.

NORTH-SOUTH COMPARISON

NORTH	A/R-Non A/R Decrease* 36%	N. S.	N. S.	Non A/R Decrease* 20%	N. S.	N. S.
SOUTH	A/R-Non A/R Decrease 26%	N. S.	Non A/R Increase 13%	Non A/R Decrease 27%	Non A/R Decrease 41%	N. S.
CITY-WIDE	A/R-Non A/R Decrease	N. S.	N. S.	Non A/R Decrease	Non A/R Decrease	N. S.

Table V-11 summarizes the results for Experiment II.

TABLE V-11

Significant chi-square results for Experiment II for West-East city divisions and the North-South city divisions.

WEST-EAST COMPARISON

CITY DIVISIONS	JANUARY - MARCH "Return to Baseline"			APRIL - DECEMBER		
	EXPERIMENTAL	CONTROL	DAYTIME	EXPERIMENTAL	CONTROL	DAYTIME
WEST	N. S.	N. S.	N. S.	N. S.	N. S.	A/R and Non-A/R Increase** 13%
EAST	N. S.	N. S.	Non-A/R Increase** 13%	Non-A/R Decrease* 27%	A/R Decrease* 28%	Non-A/R Increase** 11%
CITY-WIDE	Non-A/R Decrease*	N. S.	Non-A/R Increase*	N. S.	N. S.	A/R Non-A/R Increase**

NORTH-SOUTH COMPARISON

NORTH	A/R Increase* 40%	N. S.	N. S.	N. S.	Non-A/R Increase* 25%	Non-A/R Increase** 18%
SOUTH	N. S.	N. S.	Non-A/R Increase** 18%	N. S.	Non-A/R Decrease** 26%	A/R Increase* 22%
CITY-WIDE	Non-A/R Decrease	N. S.	Non-A/R Increase*	N. S.	N. S.	A/R, Non-A/R Increase**

The chi-square analysis and actual monthly collision figures for the West-East analysis and the North-South analysis are located in the Appendix as Tables Q and R.

3. City-Wide Analysis

The argument was presented that, in fact, the area of arrest concentration was the same during Experiment I and Experiment II even though the Traffic Task Force was assigned patrol areas during Experiment I. This argument led to a city-wide analysis of the collision data. Discarding areas allowed for a simplification of the collision data. Experiment I was no longer divided into two six-month periods. The year as a whole was analyzed. Table V-12 shows the results of the city-wide collision analysis for Experiment I and Experiment II. Table V-13 shows the city-wide "return to baseline" data.

TABLE V-12
CITY-WIDE COLLISIONS FOR 1976 THROUGH 1977

	EXPERIMENT I JANUARY - DECEMBER 1976			EXPERIMENT II APRIL - DECEMBER 1977		
	EXPERIMENTAL	CONTROL	DAYTIME	EXPERIMENTAL	CONTROL	DAYTIME
ALCOHOL RELATED	Decrease* 20%	Decrease** 22%	N. S. 1% Increase	N. S. 4% Decrease	N. S. 12% Decrease	Increase** 25%
NON-ALCOHOL RELATED	Decrease*** 29%	Decrease*** 30%	Increase* 5%	N. S. 2% Decrease	N. S. 8% Decrease	Increase*** 11%
TOTAL COLLISIONS	Decrease*** 26%	Decrease*** 26%	Increase* 5%	N. S. 2% Decrease	N. S. 9% Decrease	Increase*** 12%

TABLE V-13
CITY-WIDE COLLISIONS FOR 1975 VERSUS 1977

Return to Baseline

January through March

	EXPERIMENTAL	CONTROL	DAYTIME
Alcohol Related	N. S. (20% increase)	N. S. (11% decrease)	N. S. (19% decrease)
Non-Alcohol Related	Decrease* 30%	N. S. (4% increase)	Increase* 10%
Total Collisions	N. S. (12% decrease)	N. S. (1% decrease)	N. S. (8% increase)

The city-wide collision data for Experiment I showed decreases for both alcohol and non-alcohol related collisions. These decreases represent a 20 percent and 29 percent decrease, respectively. When the Traffic Task Force stopped patrolling, the alcohol related collisions increased by 20 percent, which was not significant. The non-alcohol related collisions decreased by a significant percent, 30 percent. When the Traffic Task Force was reinstated during Experiment II, both the alcohol and non-alcohol related collisions remained lower than the baseline level, but did not represent a statistically significant change. Table S in the Appendix shows the city-wide collisions.

4. Comparison City Data

At the time of this report, comparison city data was not available for 1977. Table V-14 summarizes the total collision data for

calendar years 1975 and 1976 for Stockton and the four comparison cities: Fresno, Modesto, Riverside, and Bakersfield. The data for Stockton for the comparison city analysis differs slightly from the previous section since all data for the inter-city comparison was received from the centralized State data file maintained by the California Highway Patrol.

A chi-square test was conducted comparing 1975 with 1976 collision levels for each time period, within each city, and for the sum of the four comparison cities. In Stockton, both the Experimental Time and Control Time collisions were significantly reduced in 1976 while the Daytime collisions significantly increased. No comparison city shows a significant decrease in Experimental Time collisions, and only one of the four, Bakersfield, showed a significant decrease in Control Time collisions.

TABLE V-14

C.H.P. COLLISION DATA FOR 1975 AND 1976
IN STOCKTON AND FOUR COMPARISON CITIES

	<u>EXPERIMENTAL TIME</u>	<u>CONTROL TIME</u>	<u>DAYTIME</u>
Stockton	Decrease**	Decrease**	Increase*
Fresno	Increase**	N. S.	Decrease**
Modesto	Increase*	N. S.	N. S.
Riverside	N. S.	N. S.	N. S.
Bakersfield	N. S.	Decrease*	N. S.
Summed Comparison Cities	Increase**	N. S.	N. S.

* = p < .05

** = p < .01

A second chi-square test contrasted the 1975-1976 trend in Stockton for collisions during the three time periods with the corresponding 1975-1976 trend in each of the four comparison cities. The downward trend from 1975 to 1976 in nighttime accidents in Stockton was significantly different from the trend in each of the comparison cities. This was true despite the fact that the accidents for Daytime increased from 1975 to 1976 in Stockton relative to the summed experience of these four comparison sites. Table T and U in the Appendix shows the chi-square analysis and collision data for the comparison cities.

During Experiment I, the city-wide collisions decreased an average of 26 percent from the baseline year, 1975. The decreases occurred during both the Experimental Time and Control Time as opposed to the increase during the Daytime hours. When the patrols were removed, collisions approached the baseline level during the Experimental Time and the Control Time. There also was an increase in the Daytime total collisions. With the reinstatement of the patrols, once again, the collisions during the Experimental

and Control Time decreased. It is interesting to note that the Daytime collisions during Experiment II continued to increase even more significantly than during Experiment I.

The decrease in Control Time collisions may be attributed to a "halo" or "carry over" effect of the presence of the Traffic Task Force during the Experimental hours. Further evidence of the effectiveness of the Traffic Task Force is provided by the Comparison City data. The results of the comparison city data support the hypothesis that the Traffic Task Force was responsible for the reductions in nighttime collisions in Stockton by showing that there was no general downward trend in nighttime collisions in any of the comparison cities.

D. Cost Revenue

1. Revenue Estimates

The revenue data for fines generated by the Traffic Task Force D.U.I. arrests and traffic citations was supplied by the San Joaquin County Data Processing Center. They supplied a 26 percent sample of the dispositions for the 1976 TTF cases. Based on the obtained sample, estimates were generated for all dispositions in 1976. The 1977 data uses the same estimate base as the 1976 data. Table V-15 shows the dispositions for 1976 and 1977.

TABLE V-15

DRUNK DRIVER DISPOSITIONS

	<u>1976</u>	<u>1977</u>
D.U.I. Arrests	2,271	2,615
Charged 23102	77.4%	60.2%
Dismissed	1.5%	2.2%
Reduced or Amended	16.4%	23.3%
Acquitted	.3%	.08%
Pending	4%	12%
Not Charged	.4%	2.2%

The money generated by the Stockton Project is divided between the city and the county. The city receives 86 percent of the revenue and the county receives 14 percent. Additionally, revenue generated by persons receiving formal probation is

automatically sent to the county for operation of the Probation Office.

Table V-16 shows the estimated revenue from the Traffic Task Force activities during 1976 and 1977. Seventy-six percent of the estimated D.U.I. fines levied were paid for a total revenue of \$273,266 in 1976 and \$314,255 in 1977. The traffic citation revenue is estimated to be 100 percent of the fines levied. In 1976, the estimated revenue generated from traffic citations was \$140,563. This figure for 1977 was estimated at \$84,338. The difference in the 1976 and 1977 revenue figures reflect a 15 percent increase in D.U.I. arrests from 1976 to 1977 and a 40 percent decrease in traffic citations from 1976 to 1977. The average D.U.I. fine levied was \$268.

TABLE V-16.
ESTIMATED REVENUE FROM THE TRAFFIC TASK FORCE

	1976	1977
D.U.I. Fines Levied	\$359,560	\$413,494
Fines Paid to City	218,558	251,404
Fines Paid to County*	54,708	62,851
Traffic Citations Levied	\$140,563	\$ 84,338
Fines Paid to City	111,251	66,627
Fines Paid to County*	29,312	17,711
Total Fines Paid to City	\$329,809	\$318,031
Total Fines Paid to County	84,020	80,562
Total Fines Paid	413,829	398,593
Total Fines Levied	\$500,123	\$497,832

*Includes 35 percent of the fines collected paid directly to the County through the Probation Office.

Enforcement costs for Experiment I were \$108,302. During this same period, there were 141 less accidents than during 1975. During Experiment II, \$94,282 was spent by Enforcement with a collision reduction of 10.

2. Project Costs Per D.U.I. Arrest

The cost data for D.U.I. arrests was calculated three times, once for the actual cost of arrests for the Stockton Project, which emphasizes management, training, and evaluation; secondly,

the cost for a program similar to Stockton's but lacking extensive management, training, and evaluation; and thirdly, the cost for regular patrol arrests.

Cumulative costs (refer to Section III) incurred since the beginning of the Stockton Project for Experiment I show a cost per D.U.I. arrest at \$224. This figure for Experiment II is \$181. The actual cost per D.U.I. arrest for Experiment I and Experiment II is \$176 and \$144, respectively. The Stockton Project includes costs that do not directly apply to Traffic Task Force activities (e.g., roadside survey and analysis of evaluation data). Therefore, approximately 62 percent of the total project costs will be applied to the calculation of the cost per D.U.I. arrest.

Table V in the Appendix shows the breakdown for the calculation of the cost per D.U.I. arrest made by the Stockton Project during the two years of operations.

The cost for a project similar to Stockton's but lacking extensive management, evaluation, and training are shown in Appendix Table W.

The cost per D.U.I. arrest for the regular patrol involved only the calculation of enforcement costs and are shown in Appendix Table X. There have been a total of 2,890 D.U.I. arrests made by the Traffic Task Force since the beginning of the Stockton Project for a total TTF related cost of \$254,348. The cost per D.U.I. arrest since the start of the project is \$88. The total costs for the 449 arrests made by the regular patrol is \$23,350 for a cost per arrest of \$52.

Table V-17 summarizes the cost per D.U.I. for the Traffic Task Force, a project similar to Stockton's, and regular patrol.

TABLE V-17
COST PER D.U.I. ARREST

	<u>Traffic Task Force</u>	<u>Similar Project</u>	<u>Regular Patrol</u>
Experiment I	\$110	\$103	\$55
Experiment II	\$ 87	\$ 75	\$50

The decrease in TTF costs per arrest from Experiment I to Experiment II is a result of the increase in D.U.I. arrests during Experiment II. The same fact holds true for the cost per arrest of the project similar to Stockton's.

3. Estimated Costs for D.U.I. Dispositions

Dispositions of D.U.I. cases involve not only the generation of fines, but also incarceration and rehabilitation costs. As with the revenue data, the disposition cost data is based on a 26 percent sample of the total dispositions rendered in 1976.

Table Y in the Appendix gives the estimated costs for the D.U.I. arrests made by the Traffic Task Force.

The average cost of one day in the County Jail is \$17.50. The cost for attending the alcohol rehabilitation is estimated at \$1,200 per case. There is a fee of \$35 for attending the D.W.I. school. Costs not reflected in Table Y involve legal and court costs. These cost estimates were not available from the District Attorney's office. Therefore, the estimated cost data does not reflect all true costs

Table V-18 is a summary of the costs and revenue for Experiments I and II.

TABLE V-18

SUMMARY TABLE OF COSTS AND REVENUE

	<u>1976</u>	<u>1977</u>
Enforcement Costs	\$108,302	\$ 94,282
Other Costs	37,599	40,722
Total Costs	145,901	135,004
Projected Revenue	413,829	398,593
Collisions Avoided	141	10

Discussion

The incompleteness of the revenue and cost data does not lend itself to an accurate cost/benefit statement; therefore, only estimates are presented.

In 1976, the project incurred costs of \$380,081 and generated \$413,829 in revenue. These figures for 1977 were \$413,849 and \$398,593, respectively. These figures can be interpreted as saying, "In 1976, revenues derived from operations of the Task Force exceeded expenditures by 9 percent; operations during the second year returned revenues 96 percent of the operational cost." The estimated combination of 1976 and 1977 resulted in approximately a cost/benefit of 1.

E. General Discussion and Conclusions

Discussion

To facilitate easier understanding of the findings of the second year of Traffic Task Force operations, city-wide results will be discussed for the following measures: Traffic Task Force activities, roadside survey data, collisions, alcohol and non-alcohol related.

Traffic Task Force Activities

During the second year of operations, the Traffic Task Force was assigned to a city-wide patrol area. Even though the strategy allowed for no constraints as to patrol area, the D.U.I. arrest activity concentrated in a small section of the city. This area of concentration did not change from Experiment I to Experiment II. It is hypothesized that the concentration of arrest activity is the result of the officers' previous year experience. During Experiment I, the officers learned that the "fishing holes" of greatest D.U.I. concentration were located in the central section of town. When the patrols were reinstated during Experiment II, the officers naturally returned to that area which produced the largest number of D.U.I. arrests.

Roadside Survey

The second-year results showed a "return to baseline" for the blood alcohol concentrations at the roadside survey. A more sensitive measure of drinking driving activity is the proportion of persons at the roadside survey who have a blood alcohol concentration of .10 or above. The proportion data did show a significant decrease in the number of legally intoxicated drivers at the roadside survey during Experiment II. This data suggests that the presence of the Traffic Task Force did impact the number of legally intoxicated drivers on the city streets during the enforcement time period.

Collisions

The city-wide collision data for Experiment I showed decreases for both alcohol and non-alcohol related collisions. During the three months of no extra enforcement, the alcohol related collisions increased but this increase was not statistically significant. The non-alcohol related collisions during that three-month period significantly decreased. The Experiment II data showed decreases for both the alcohol and non-alcohol related collisions, but these decreases were not statistically significant.

Conclusions

The Traffic Task Force activity data shows that the presence of the Traffic Task Force did dramatically increase the number of D.U.I. arrests and the number of traffic citations issued for non-alcohol related traffic offenses. Additionally, the proportion of legally intoxicated persons driving on the city streets during the enforcement hours decreased significantly. This data suggests that the Traffic Task Force did impact the drinking driver.

The city-wide analysis of the collision data does not statistically support the impact hypothesis. Reanalysis of the data by areas of patrol concentration shows decreases in total collisions in that area where Traffic Task Force activity was greatest and increases in collisions where activity was minimal. These results suggest that impact was evident but that the original statistical design was not sensitive to the changes in the collision data.

F. Recommendations

Based upon the findings of the evaluation report, the following recommendations are made:

1. Return to a pre-enforcement level of Traffic Task Force effort for a period of six months.
2. The Traffic Task Force will be reinstated for a period of 12 months, patrol with ten one-man cars. Six of the patrols will be assigned to the North section of the city and four to the South section. The patrol should maintain the same level of effort as exhibited during 1976 and 1977.
3. Continue to use both the area divisions (A, B), the city-wide divisions, and a new North, South division for all data analysis.
4. Maintain all other activities as conducted during 1976 and 1977 with the exception of the parking lot counts. Additionally, the roadside survey will terminate April 1, 1979.

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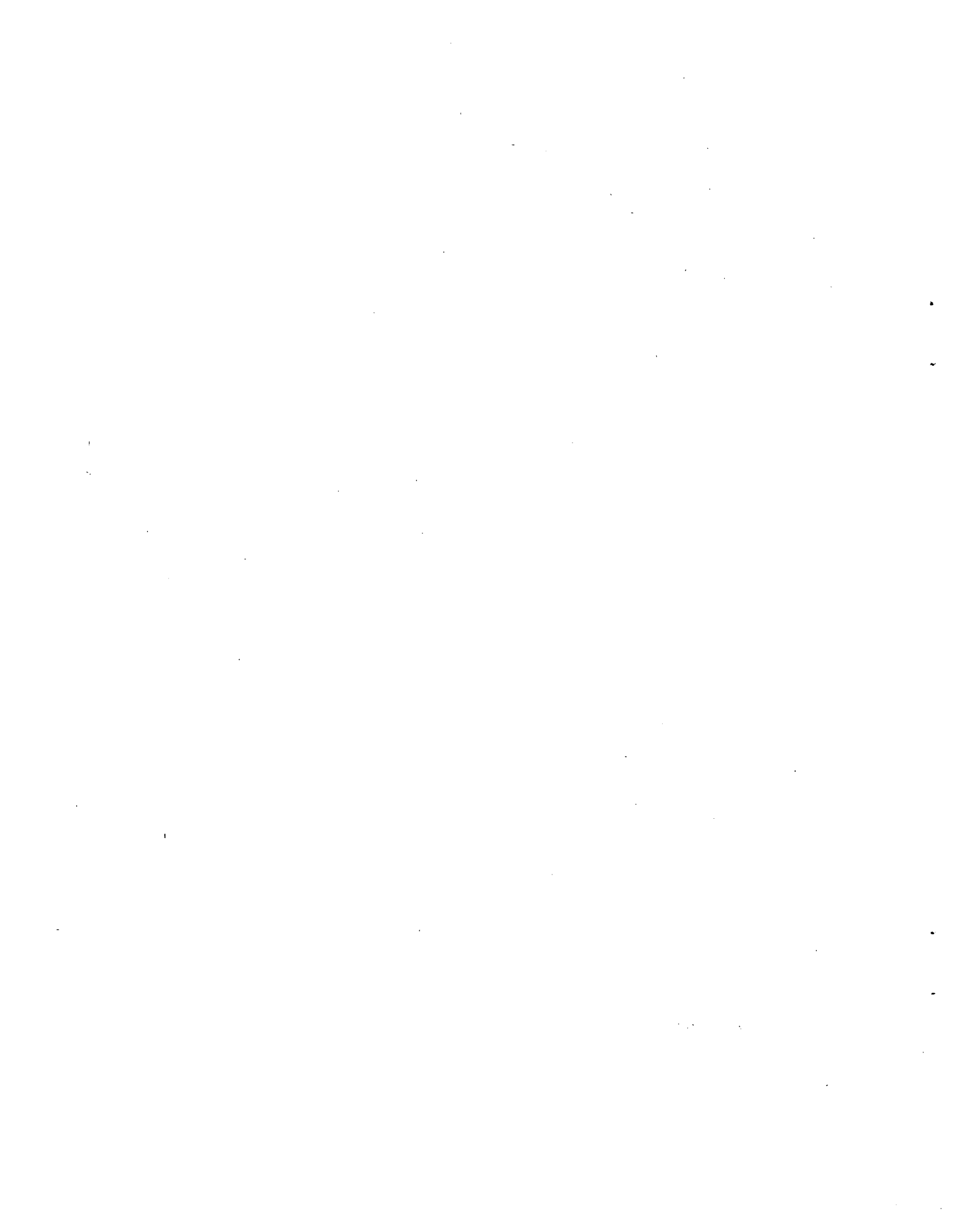


TABLE A
TRAFFIC TASK FORCE SUMMARY - 1976

	<u>JAN.</u>	<u>FEB.</u>	<u>MAR.</u>	<u>APR.</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG.</u>	<u>SEPT.</u>	<u>OCT.</u>	<u>NOV.</u>	<u>DEC.</u>	<u>TOTAL</u>
D.U.I. Arrests	99	100	91	107	116	126	88	97	115	154	109	122	1,324
Traffic Citations	372	308	302	415	476	340	449	402	388	488	352	371	4,663
Avg. Citations Per Man Hour	.48	.44	.47	.61	.61	.53	.58	.58	.60	.60	.57	.52	.55
Traffic Warrant Arrests	5	1	1	2	2	2	2	2	1	3	3	1	25
Field Contacts	674	590	744	797	973	830	1,154	1,049	948	1,173	895	1,075	10,902
Avg. Field Cont. Per Man Hour	.88	.84	1.16	1.18	1.25	1.29	1.49	1.52	1.46	1.43	1.44	1.49	1.29
Detention and Releases	10	10	15	19	17	18	25	21	11	20	9	18	193
Criminal Arrests	12	27	15	25	34	37	20	9	8	11	12	8	218
Other Calls	118	108	73	35	52	65	63	51	56	32	33	31	717
Total Man Hours	770	702	643	675	777	641.5	775	689	648	818.5	622.5	719.5	8,481
Total Stops	1,162	1,009	1,153	1,340	1,584	1,316	1,718	1,571	1,463	1,838	1,368	1,587	17,109
Total Stops Per Man Hour	1.5	1.4	1.79	1.98	2.04	2.05	2.22	2.28	2.26	2.24	2.20	2.21	2.01
<u>Chemical Tests</u>													
Breath	79	86	69	87	89	101	71	78	94	127	92	98	1,071
Blood	3	3	2	4	10	8	4	9	4	8	4	8	67
Urine	5	4	7	8	7	8	4	7	6	6	1	4	67
Refusal	12	7	13	7	10	9	9	3	11	13	12	12	118
Average D.U.I. Per Man	1.1	1.25	1.14	1.2	1.22	1.58	.88	1.14	1.44	1.54	1.42	1.39	1.28
Average BAC	.17	.16	.17	.16	.17	.17	.17	.16	.17	.17	.17	.17	.17

TABLE B
TRAFFIC TASK FORCE SUMMARY - 1977

	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>	<u>Total</u>
D.U.I. Arrests	169	160	158	210	168	163	205	160	173	1,566
Traffic Citations	401	343	350	367	268	276	336	259	290	2,890
Avg. Citations Per Man Hour	.51	.50	.51	.45	.41	.40	.43	.40	.46	.45
Traffic Warrant Arrests	0	4	1	3	0	1	1	0	2	12
Field Contacts	1,167	1,096	995	1,401	1,059	1,186	1,206	1,089	1,299	10,498
Avg. Field Cont. Per Man Hour	1.49	1.59	1.44	1.71	1.64	1.72	1.56	1.70	2.05	1.65
Detention and Releases	28	21	26	37	19	22	31	21	29	234
Criminal Arrests	16	12	15	11	13	16	10	8	17	118
Other Calls	32	42	49	45	34	34	30	16	42	324
Total Man Hours	782	690	690.5	821	647	690	775	642	634	6,371.5
Total Stops	1,765	1,624	1,530	2,018	1,514	1,648	1,779	1,529	1,793	15,200
Total Stops Per Man Hour	2.26	2.35	2.22	2.46	2.34	2.39	2.30	2.38	2.83	2.39
<u>Chemical Tests</u>										
Breath	146	133	136	183	146	141	176	138	154	1,353
Blood	7	5	4	10	3	7	11	9	3	59
Urine	2	3	5	4	4	4	3	5	3	33
Refusal	14	19	13	13	15	11	15	8	13	121
Average D.U.I. Per Man	1.78	1.88	1.98	2.10	2.10	1.92	2.16	2	2.19	2.01
Average BAC	.17	.16	.17	.16	.17	.16	.16	.16	.16	.16

VI-2

TABLE C

CHI-SQUARES FOR EXPERIMENT I D.U.I. ARRESTS

A. West-East Comparisons

Experimental Time

January through June

1975 vs. 1976 West Area: $\chi^2 = 12.74$ $p < .01$ 1975 < 1976
 1975 vs. 1976 East Area: $\chi^2 = 468.93$ $p < .01$ 1975 < 1976
 1975 vs. 1976 City Wide: $\chi^2 = 445.89$ $p < .01$ 1975 < 1976

July through December

1975 vs. 1976 West Area: $\chi^2 = 474.92$ $p < .01$ 1975 < 1976
 1975 vs. 1976 East Area: $\chi^2 = 55.28$ $p < .01$ 1975 < 1976
 1975 vs. 1976 City Wide: $\chi^2 = 371.36$ $p < .01$ 1975 < 1976

Control Time

January through June

1975 vs. 1976 West Area: $\chi^2 = 12.25$ $p < .01$ 1975 < 1976
 1975 vs. 1976 East Area: $\chi^2 = 20.61$ $p < .01$ 1975 < 1976
 1975 vs. 1976 City Wide: $\chi^2 = 32.86$ $p < .01$ 1975 < 1976

July through December

1975 vs. 1976 West Area: Not Significant
 1975 vs. 1976 East Area: Not Significant
 1975 vs. 1976 City Wide: Not Significant

Daytime

January through June

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

July through December

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

B. North-South Comparisons

Experimental Time

January-June

1975 vs. 1976 North Area: $\chi^2 = 23.58$ $p < .01$ 1975 < 1976

1975 vs. 1976 South Area: $\chi^2 = 430.30$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: $\chi^2 = 445.89$ $p < .01$ 1975 < 1976

July through December

1975 vs. 1976 North Area: $\chi^2 = 78.96$ $p < .01$ 1975 < 1976

1975 vs. 1976 South Area: $\chi^2 = 425.88$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: $\chi^2 = 504.63$ $p < .01$ 1975 < 1976

Control Time

January-June

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: $\chi^2 = 30.65$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: $\chi^2 = 32.86$ $p < .01$ 1975 < 1976

July-December

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

Daytime

January-June

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

July-December

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

TABLE D

CHI-SQUARES FOR EXPERIMENT II FOR D.U.I. ARRESTS

A. West-East Comparisons

Experimental Time

January through March

1975 vs. 1977 West Area: $\chi^2 = 5.23$ $p < .05$ 1975 < 1977

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 West Area: $\chi^2 = 520.87$ $p < .01$ 1975 < 1977

1975 vs. 1977 East Area: $\chi^2 = 807.71$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 1,328.31$ $p < .01$ 1975 < 1977

Control Time

January through March

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 West Area: $\chi^2 = 4.70$ $p < .05$ 1975 < 1977

1975 vs. 1977 East Area: $\chi^2 = 9.48$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 14.16$ $p < .01$ 1975 < 1977

Daytime

January through March

1975 vs. 1977 West Area: $\chi^2 = 5.78$ $p < .05$ 1975 < 1977

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 West Area: $\chi^2 = 7.12$ $p < .01$ 1975 < 1977

1975 vs. 1977 East Area: $\chi^2 = 6.02$ $p < .05$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 13.04$ $p < .01$ 1975 < 1977

B. North-South Comparisons

Experimental Time

January-March

1975 vs. 1977 North Area: $\chi^2 = 7.38$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April-December

1975 vs. 1977 North Area: $\chi^2 = 96.08$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: $\chi^2 = 1,218.12$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 1,211.54$ $p < .01$ 1975 < 1977

Control Time

January-March

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April-December

1975 vs. 1977 North Area: $\chi^2 = 11.13$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: $\chi^2 = 11.93$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 21.04$ $p < .01$ 1975 < 1977

Daytime

January-March

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: $\chi^2 = 3.84$ $p < .05$ 1975 < 1977

April-December

1975 vs. 1977 North Area: $\chi^2 = 5.22$ $p < .05$ 1975 < 1977

1975 vs. 1977 South Area: $\chi^2 = 8.47$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 13.04$ $p < .01$ 1975 < 1977

TABLE E

CHI-SQUARES FOR CITY WIDE D.U.I. ARRESTS
FOR EXPERIMENT I AND EXPERIMENT II

Experimental Time

1975 vs. 1976 January-December: $\chi^2 = 949.69$ $p < .01$ 1975 < 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: $\chi^2 = 1,308.82$ $p < .01$ 1975 < 1977

Control Time

1975 vs. 1976 January-December: $\chi^2 = 21.06$ $p < .01$ 1975 < 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: $\chi^2 = 21.04$ $p < .01$ 1975 < 1977

Daytime

1975 vs. 1976 January-December: $\chi^2 = 4.37$ $p < .05$ 1975 < 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: $\chi^2 = 13.04$ $p < .01$ 1975 < 1977

TABLE F

D.U.I. ARRESTS - EXPERIMENTAL TIME

Year Divisions	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	25	36	15	46
1976	51	289	35	305
1977	44	32	34	42
<u>April-June</u>				
1975	29	24	13	40
1976	47	339	43	343
1977	221	312	55	478
<u>July-September</u>				
1975	13	27	10	30
1976	259	84	60	283
1977	224	364	54	534
<u>October-December</u>				
1975	24	32	9	47
1976	318	88	66	340
1977	231	356	63	524

D.U.I. ARRESTS - CONTROL TIME

<u>Year Divisions</u>	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	31	36	15	52
1976	37	77	20	94
1977	43	48	26	65
<u>April-June</u>				
1975	20	45	12	53
1976	56	73	21	108
1977	49	92	28	113
<u>July-September</u>				
1975	31	45	18	58
1976	45	60	23	82
1977	41	58	21	78
<u>October-December</u>				
1975	42	64	13	93
1976	34	58	20	72
1977	57	63	31	89

D.U.I. ARRESTS - DAYTIME

<u>Year Division</u>	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	19	28	5	42
1976	24	31	2	53
1977	37	29	13	53
<u>April-June</u>				
1975	14	23	6	31
1976	30	23	9	44
1977	38	45	18	65
<u>July-September</u>				
1975	13	16	4	25
1976	24	27	7	44
1977	26	33	10	49
<u>October-December</u>				
1975	33	35	12	56
1976	30	34	12	52
1977	29	29	12	46

D.U.I. ARRESTS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	0	1	3	4	7
1974	1	1	2	11	22	33
1975	1	1	2	10	14	24
1976	0	8	8	17	89	106
1977	11	5	16	8	12	20
<u>FEBRUARY</u>						
1973	0	2	2	5	3	8
1974	5	2	7	12	15	27
1975	4	3	7	1	9	10
1976	2	13	15	14	87	101
1977	8	1	9	8	5	13
<u>MARCH</u>						
1973	2	3	5	8	10	18
1974	1	4	5	14	25	39
1975	4	2	6	5	7	12
1976	0	12	12	18	80	98
1977	5	4	9	4	5	9

D.U.I. ARRESTS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	0	0	0	2	12	14
1974	2	1	3	4	23	27
1975	2	1	3	6	7	13
1976	1	15	16	17	93	110
1977	10	8	18	56	107	163
 <u>MAY</u>						
1973	1	0	1	4	6	10
1974	1	0	1	7	21	28
1975	3	2	5	8	8	16
1976	2	10	12	9	101	110
1977	15	6	21	73	86	159
 <u>JUNE</u>						
1973	3	3	6	3	12	15
1974	5	3	8	3	28	31
1975	4	1	5	6	5	11
1976	3	12	15	15	108	123
1977	9	7	16	58	98	156

D.U.I. ARRESTS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JULY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	0	0	0	0	3	3
1974	2	0	2	1	4	5
1975	0	0	0	1	6	7
1976	19	6	25	59	20	79
1977	5	5	10	80	138	218
 <u>AUGUST</u>						
1973	1	1	2	4	7	11
1974	3	1	4	5	4	9
1975	0	4	4	4	7	11
1976	12	7	19	67	25	92
1977	12	5	17	48	116	164
 <u>SEPTEMBER</u>						
1973	4	4	8	10	12	22
1974	1	2	3	5	12	17
1975	2	4	6	6	6	12
1976	11	5	16	91	21	112
1977	20	7	27	59	93	152

D.U.I. ARRESTS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	4	0	4	6	16	22
1974	2	3	5	6	8	14
1975	2	2	4	6	4	10
1976	26	4	30	102	36	138
1977	15	12	27	83	119	202
 <u>NOVEMBER</u>						
1973	1	2	3	5	29	34
1974	1	3	4	3	14	17
1975	0	3	3	11	14	25
1976	10	0	10	87	12	99
1977	8	7	15	58	96	154
 <u>DECEMBER</u>						
1973	2	7	9	13	33	46
1974	3	3	6	7	6	13
1975	0	2	2	5	7	12
1976	22	4	26	71	32	103
1977	16	5	21	51	117	168

D.U.I. ARRESTS - CONTROL HOURS

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	0	1	1	3	4
1974	1	3	4	11	30	41
1975	1	4	5	12	15	27
1976	1	1	2	9	24	33
1977	4	2	6	11	12	23
<u>FEBRUARY</u>						
1973	1	2	3	3	2	5
1974	3	1	4	7	28	35
1975	6	3	9	6	3	9
1976	4	1	5	8	12	20
1977	3	6	9	6	11	17
<u>MARCH</u>						
1973	2	6	8	7	17	24
1974	6	10	16	12	41	53
1975	0	1	1	6	10	16
1976	6	7	13	9	32	41
1977	7	4	11	12	13	25

D.U.I. ARRESTS - CONTROL HOURS

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	0	1	1	6	17	23
1974	2	5	7	8	25	33
1975	2	3	5	6	17	23
1976	2	4	6	19	26	45
1977	8	3	11	22	44	66
<u>MAY</u>						
1973	0	0	0	2	9	11
1974	3	3	6	12	38	50
1975	0	1	1	3	9	12
1976	7	2	9	13	18	31
1977	3	3	6	8	19	27
<u>JUNE</u>						
1973	1	4	5	6	22	28
1974	3	0	3	8	42	50
1975	2	4	6	7	11	18
1976	2	4	6	13	19	32
1977	4	7	11	4	16	20

D.U.I. ARRESTS - CONTROL HOURS

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JULY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	0	1	4	6	10
1974	5	1	6	6	10	16
1975	3	3	6	6	7	13
1976	4	5	9	14	21	35
1977	6	2	8	7	24	31
 <u>AUGUST</u>						
1973	1	1	2	10	17	27
1974	2	1	3	5	8	13
1975	3	4	7	3	6	9
1976	5	3	8	9	8	17
1977	4	1	5	10	13	23
 <u>SEPTEMBER</u>						
1973	1	8	9	18	3	21
1974	3	6	9	12	15	27
1975	1	4	5	15	21	36
1976	3	3	6	10	20	30
1977	3	5	8	11	13	24

D.U.I. ARRESTS - CONTROL HOURS

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	5	0	5	7	26	33
1974	4	1	5	6	13	19
1975	3	3	6	7	9	16
1976	2	2	4	5	9	14
1977	9	4	13	13	18	31
<u>NOVEMBER</u>						
1973	4	3	7	11	23	34
1974	4	3	7	5	18	23
1975	1	2	3	12	15	27
1976	4	8	12	8	16	24
1977	6	1	7	15	21	36
<u>DECEMBER</u>						
1973	3	5	8	19	52	71
1974	2	5	7	13	14	27
1975	2	2	4	17	33	50
1976	2	2	4	13	21	34
1977	6	5	11	8	14	22

D.U.I. ARRESTS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	0	1	2	2	4
1974	4	1	5	7	12	19
1975	0	0	0	4	11	15
1976	0	0	0	7	12	19
1977	3	3	6	9	6	15
<u>FEBRUARY</u>						
1973	1	1	2	3	4	7
1974	1	5	6	7	9	16
1975	2	1	3	5	9	14
1976	1	0	1	8	9	17
1977	1	1	2	9	11	20
<u>MARCH</u>						
1973	2	1	3	2	10	12
1974	1	3	4	12	30	42
1975	2	0	2	6	7	13
1976	1	0	1	7	10	17
1977	4	1	5	11	7	18

D.U.I. ARRESTS - DAYTIME

<u>APRIL</u>	<u>NORTH</u>			<u>SOUTH</u>		
	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	0	1	0	6	6
1974	1	2	3	7	17	24
1975	1	2	3	4	6	10
1976	3	0	3	11	7	18
1977	1	2	3	18	16	34
<u>MAY</u>						
1973	3	2	5	2	5	7
1974	0	1	1	14	16	30
1975	0	0	0	4	6	10
1976	3	0	3	3	8	11
1977	5	5	10	4	11	15
<u>JUNE</u>						
1973	0	1	1	3	6	9
1974	2	2	4	12	9	21
1975	2	1	3	3	8	11
1976	2	1	3	8	7	15
1977	3	2	5	7	9	16

D.U.I. ARRESTS - DAYTIME

<u>JULY</u>	<u>NORTH</u>			<u>SOUTH</u>		
	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	0	1	1	1	5	6
1974	0	0	0	11	8	19
1975	0	1	1	0	5	5
1976	1	3	4	8	10	18
1977	0	6	6	6	8	14
<u>AUGUST</u>						
1973	0	0	0	3	4	7
1974	3	3	6	5	9	14
1975	1	1	2	3	7	10
1976	1	1	2	6	10	16
1977	0	2	2	8	6	14
<u>SEPTEMBER</u>						
1973	0	1	1	0	8	8
1974	2	1	3	9	12	21
1975	1	0	1	8	2	10
1976	1	0	1	7	3	10
1977	2	0	2	10	11	21

D.U.I. ARRESTS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	2	3	6	14	20
1974	2	2	4	9	10	19
1975	2	1	3	10	6	16
1976	2	2	4	4	7	11
1977	0	1	1	9	8	17
<u>NOVEMBER</u>						
1973	1	3	4	3	5	8
1974	0	9	9	8	13	21
1975	2	4	6	5	8	13
1976	0	0	0	8	10	18
1977	4	1	5	6	7	13
<u>DECEMBER</u>						
1973	3	2	5	11	14	25
1974	4	5	9	10	10	20
1975	1	2	3	13	14	27
1976	5	3	8	11	12	23
1977	3	3	6	7	9	16

TABLE G
PROBABILITY OF REARREST

	1976		
	<u>Cumulative Arrested Population</u>	<u>Cumulative Number Rearrested</u>	<u>Probability of Rearrest</u>
January	170	3	.0176
February	333	3	.0090
March	508	8	.0157
April	702	19	.0271
May	885	24	.0271
June	1,076	31	.0288
July	1,241	41	.0330
August	1,394	49	.0352
September	1,561	63	.0404
October	1,758	77	.0438
November	1,911	94	.0492
December	2,100	112	.0533

TABLE H
PROBABILITY OF REARREST

1977

	<u>Cumulative Arrested Population</u>	<u>Cumulative Number Rearrested</u>	<u>Probability of Rearrest</u>
January	2,192	126	.0575
February	2,271	131	.0577
March	2,358	139	.0589
April	2,662	193	.0725
May	2,897	236	.0815
June	3,125	281	.0899
July	3,414	343	.1005
August	3,641	381	.1046
September	3,880	430	.1108
October	4,173	466	.1117
November	4,409	506	.1148
December	4,656	550	.1181

TABLE I

CHI-SQUARES FOR TRAFFIC CITATIONS FOR EXPERIMENT I

A. West-East Comparisons

Experimental Time

January through June

1975 vs. 1976 West Area: $\chi^2 = 8.49$ $p < .01$ 1975 < 19761975 vs. 1976 East Area: $\chi^2 = 927.71$ $p < .01$ 1975 < 19761975 vs. 1976 City Wide: $\chi^2 = 679.70$ $p < .01$ 1975 < 1976

July through December

1975 vs. 1976 West Area: $\chi^2 = 625.17$ $p < .01$ 1975 < 19761975 vs. 1976 East Area: $\chi^2 = 157.54$ $p < .01$ 1975 < 19761975 vs. 1976 City Wide: $\chi^2 = 780.80$ $p < .01$ 1975 < 1976Control Time

January through June

1975 vs. 1976 West Area: $\chi^2 = 141.92$ $p < .01$ 1975 < 1976

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 City Wide: $\chi^2 = 4.49$ $p < .05$ 1975 < 1976

July-December

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: $\chi^2 = 86.52$ $p < .01$ 1975 < 19761975 vs. 1976 City Wide: $\chi^2 = 63.29$ $p < .01$ 1975 < 1976Daytime

January-June

1975 vs. 1976 West Area: $\chi^2 = 154.98$ $p < .01$ 1975 > 1976

1975 vs. 1976 East Area: $\chi^2 = 16.12$ $p < .01$ 1975 > 1976

1975 vs. 1976 City Wide: $\chi^2 = 136.27$ $p < .01$ 1975 > 1976

July-December

1975 vs. 1976 West Area: $\chi^2 = 241.39$ $p < .01$ 1975 < 1976

1975 vs. 1976 East Area: $\chi^2 = 142.38$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: $\chi^2 = 378.24$ $p < .01$ 1975 < 1976

B. North-South Comparisons

Experimental Time

January-June

1975 vs. 1976 North Area: $\chi^2 = 59.34$ $p < .01$ 1975 < 1976

1975 vs. 1976 South Area: $\chi^2 = 676.34$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: $\chi^2 = 679.70$ 1975 < 1976

July-December

1975 vs. 1976 North Area: $\chi^2 = 111.31$ $p < .01$ 1975 < 1976

1975 vs. 1976 South Area: $\chi^2 = 805.76$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: $\chi^2 = 780.80$ $p < .01$ 1975 < 1976

Control Time

January-June

1975 vs. 1976 North Area: $\chi^2 = 167.12$ $p < .01$ 1975 < 1976

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: $\chi^2 = 71.22$ $p < .01$ 1975 < 1976

July-December

1975 vs. 1976 North Area: $\chi^2 = 76.84$ $p < .01$ 1975 < 1976

1975 vs. 1976 South Area: $\chi^2 = 10.00$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: $\chi^2 = 63.29$ $p < .01$ 1975 < 1976

Daytime

January-June

1975 vs. 1976 North Area: $\chi^2 = 25.62$ $p < .01$ 1975 > 1976

1975 vs. 1976 South Area: $\chi^2 = 115.54$ $p < .01$ 1975 > 1976

1975 vs. 1976 City Wide: $\chi^2 = 136.27$ $p < .01$ 1975 > 1976

July-December

1975 vs. 1976 North Area: $\chi^2 = 188.31$ $p < .01$ 1975 < 1976

1975 vs. 1976 South Area: $\chi^2 = 197.67$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: $\chi^2 = 378.24$ $p < .01$ 1975 < 1976

TABLE J

CHI-SQUARES FOR TRAFFIC CITATIONS FOR EXPERIMENT II

A. West-East Comparisons

Experimental Time

January-March

1975 vs. 1977 West Area: $\chi^2 = 28.86$ $p < .01$ 1975 < 19771975 vs. 1977 East Area: $\chi^2 = 23.72$ $p < .01$ 1975 < 19771975 vs. 1977 City Wide: $\chi^2 = 52.54$ $p < .01$ 1975 < 1977

April-December

1975 vs. 1977 West Area: $\chi^2 = 86.62$ $p < .01$ 1975 < 19771975 vs. 1977 East Area: $\chi^2 = 180.81$ $p < .01$ 1975 < 19771975 vs. 1977 City Wide: $\chi^2 = 238.29$ $p < .01$ 1975 < 1977Control Time

January-March

1975 vs. 1977 West Area: $\chi^2 = 62.53$ $p < .01$ 1975 < 19771975 vs. 1977 East Area: $\chi^2 = 43.38$ $p < .01$ 1975 < 19771975 vs. 1977 City Wide: $\chi^2 = 104.58$ $p < .01$ 1975 < 1977April-December1975 vs. 1977 West Area: $\chi^2 = 8.06$ $p < .01$ 1975 < 19771975 vs. 1977 East Area: $\chi^2 = 11.58$ 1975 > 1977

1975 vs. 1977 City Wide: Not Significant

Daytime

January-March

1975 vs. 1977 West Area: $\chi^2 = 13.39$ $p < .01$ 1975 < 19771975 vs. 1977 East Area: $\chi^2 = 10.94$ $p < .01$ 1975 < 19771975 vs. 1977 City Wide: $\chi^2 = 24.37$ $p < .01$ 1975 < 1977

April-December

1975 vs. 1977 West Area: $\chi^2 = 4.14$ $p < .01$ 1975 < 1977

1975 vs. 1977 East Area: $\chi^2 = 45.22$ $p < .01$ 1975 > 1977

1975 vs. 1977 City Wide: $\chi^2 = 9.98$ $p < .01$ 1975 > 1977

B. North-South Comparisons

Experimental Time

January-March

1975 vs. 1977 North Area: $\chi^2 = 103.82$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: $\chi^2 = 52.54$ $p < .01$ 1975 < 1977

April-December

1975 vs. 1977 North Area: $\chi^2 = 18.43$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: $\chi^2 = 296.31$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 238.29$ $p < .01$ 1975 < 1977

Control Time

January-March

1975 vs. 1977 North Area: $\chi^2 = 223.27$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: $\chi^2 = 104.58$ $p < .01$ 1975 < 1977

April-December

1975 vs. 1977 North Area: $\chi^2 = 101.00$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: $\chi^2 = 77.70$ $p < .01$ 1975 > 1977

1975 vs. 1977 City Wide: Not Significant

Daytime

January-March

1975 vs. 1977 North Area: $\chi^2 = 109.52$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: $\chi^2 = 24.37$ $p < .01$ 1975 < 1977

April-December

1975 vs. 1977 North Area: $\chi^2 = 41.95$ $p < .01$ 1975 > 1977

1975 vs. 1977 South Area: $\chi^2 = 79.57$ $p < .01$ 1975 > 1977

1975 vs. 1977 City Wide: $\chi^2 = 9.98$ $p < .01$ 1975 > 1977

TABLE K

CHI-SQUARES FOR CITY WIDE TRAFFIC CITATIONS
FOR EXPERIMENT I AND EXPERIMENT II

Experimental Time

1975 vs. 1976 January-December: $\chi^2 = 1,459.96$ $p < .01$ 1975 < 1976

1975 vs. 1977 January-March: $\chi^2 = 52.54$ $p < .01$ 1975 < 1977

1975 vs. 1977 April-December: $\chi^2 = 230.29$ $p < .01$ 1975 < 1977

Control Time

1975 vs. 1977 January-December: $\chi^2 = 50.40$ $p < .01$ 1975 < 1976

1975 vs. 1977 January-March: $\chi^2 = 104.58$ $p < .01$ 1975 < 1977

1975 vs. 1977 April-December: Not Significant

Daytime

1975 vs. 1976 January-December: $\chi^2 = 22.07$ $p < .01$ 1975 < 1976

1975 vs. 1977 January-March: $\chi^2 = 24.37$ $p < .01$ 1975 < 1977

1975 vs. 1977 April-December: $\chi^2 = 9.98$ $p < .01$ 1975 > 1977

TABLE L
TRAFFIC CITATIONS
 Experimental Time

Year Division	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	240	176	152	264
1976	349	811	334	826
1977	373	280	389	264
<u>April-June</u>				
1975	333	208	224	317
1976	327	1,000	285	1,042
1977	628	439	402	665
<u>July-September</u>				
1975	540	118	474	184
1976	1,127	291	499	919
1977	614	327	415	526
<u>October-December</u>				
1975	368	198	287	279
1976	1,204	429	733	900
1977	508	293	368	433

TRAFFIC CITATIONS

Control Time

<u>Year Division</u>	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	308	361	192	477
1976	438	465	322	581
1977	538	561	617	482
<u>April-June</u>				
1975	401	422	227	596
1976	390	327	267	523
1977	360	273	269	364
<u>July-September</u>				
1975	194	226	142	278
1976	337	315	225	427
1977	395	215	316	294
<u>October-December</u>				
1975	389	332	244	477
1976	302	600	446	456
1977	359	347	434	272

TRAFFIC CITATIONS

Daytime

<u>Year Divisions</u>	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	2,850	2,479	1,794	3,535
1976	2,347	2,516	1,752	3,111
1977	3,133	2,718	2,478	3,373
<u>April-June</u>				
1975	2,980	2,810	1,961	3,829
1976	2,214	2,368	1,577	3,005
1977	2,462	2,271	1,773	2,960
<u>July-September</u>				
1975	1,499	1,551	1,017	2,033
1976	1,960	1,973	1,355	2,578
1977	1,859	1,677	1,285	2,251
<u>October-December</u>				
1975	2,298	2,250	1,540	3,008
1976	3,317	2,942	2,282	3,977
1977	2,695	1,912	2,097	2,510

TRAFFIC CITATIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	30	13	43	22	24	46
1974	17	7	24	24	36	60
1975	64	7	71	65	80	145
1976	35	57	92	55	255	310
1977	129	19	148	37	33	70
<u>FEBRUARY</u>						
1973	32	3	35	21	21	42
1974	8	6	14	19	28	47
1975	28	9	37	27	24	51
1976	56	76	132	83	177	260
1977	67	69	136	28	102	130
<u>MARCH</u>						
1973	58	26	84	26	59	85
1974	52	28	80	34	92	126
1975	28	16	44	28	40	68
1976	59	51	110	61	195	256
1977	88	17	105	24	40	64

TRAFFIC CITATIONS - EXPERIMENTAL

<u>APRIL</u>	<u>NORTH</u>			<u>SOUTH</u>		
	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	18	2	20	12	26	38
1974	18	48	66	26	54	80
1975	73	12	85	61	96	157
1976	34	76	110	76	262	338
1977	60	27	87	111	135	246
 <u>MAY</u>						
1973	11	7	18	13	23	36
1974	41	16	57	28	55	83
1975	49	11	60	46	42	88
1976	39	61	100	80	351	431
1977	167	21	188	95	129	224
 <u>JUNE</u>						
1973	42	4	46	28	39	67
1974	164	6	170	54	49	103
1975	66	13	79	38	34	72
1976	43	32	75	55	218	273
1977	109	18	127	86	109	195

TRAFFIC CITATIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JULY</u>	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	18	8	26	16	24	40
1974	50	14	64	28	23	51
1975	48	11	59	10	7	17
1976	146	22	168	237	85	322
1977	133	18	151	94	115	209
 <u>AUGUST</u>						
1973	11	13	24	8	35	43
1974	43	10	53	33	30	63
1975	176	10	186	39	20	59
1976	97	13	110	244	72	316
1977	20	5	25	58	81	139
 <u>SEPTEMBER</u>						
1973	40	6	46	20	44	64
1974	55	15	70	33	32	65
1975	209	20	229	58	50	108
1976	194	27	221	209	72	281
1977	223	16	239	86	92	178

TRAFFIC CITATIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	25	9	34	14	35	49
1974	38	7	45	23	34	57
1975	136	10	146	48	32	80
1976	320	23	343	279	91	370
1977	201	20	221	86	95	181
<u>NOVEMBER</u>						
1973	19	13	32	23	25	48
1974	31	15	46	35	44	79
1975	66	27	93	59	59	118
1976	171	84	255	178	109	287
1977	59	18	77	59	58	117
<u>DECEMBER</u>						
1973	32	6	38	23	43	66
1974	34	12	46	31	43	74
1975	29	19	48	30	51	81
1976	85	50	135	171	72	243
1977	52	18	70	51	84	135

TRAFFIC CITATIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	45	22	67	53	69	122
1974	29	16	45	25	84	109
1975	53	22	75	77	146	223
1976	30	18	48	60	103	163
1977	176	59	235	65	67	132
<u>FEBRUARY</u>						
1973	41	22	63	45	39	84
1974	21	14	35	30	55	85
1975	29	17	46	45	63	108
1976	84	51	135	82	126	208
1977	70	145	215	53	136	189
<u>MARCH</u>						
1973	38	20	58	43	85	128
1974	76	64	140	86	160	246
1975	45	26	71	59	87	146
1976	82	57	139	100	110	210
1977	120	47	167	54	107	161

TRAFFIC CITATIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	26	8	34	23	48	71
1974	42	135	177	93	193	286
1975	65	32	97	101	164	265
1976	47	31	78	76	85	161
1977	43	29	72	53	69	122
<u>MAY</u>						
1973	18	11	29	38	52	90
1974	60	84	144	69	98	167
1975	40	19	59	53	81	134
1976	60	40	100	80	117	197
1977	84	13	97	67	76	143
<u>JUNE</u>						
1973	29	19	48	34	69	103
1974	108	32	140	61	94	155
1975	52	19	71	90	107	197
1976	58	31	89	69	96	165
1977	71	29	100	42	57	99

TRAFFIC CITATIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JULY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	29	17	46	26	44	70
1974	41	20	61	45	41	86
1975	18	14	32	22	21	43
1976	58	17	75	46	80	126
1977	85	22	107	42	57	99
 <u>AUGUST</u>						
1973	21	17	38	27	56	83
1974	32	13	45	53	62	115
1975	13	12	25	17	32	49
1976	65	19	84	68	85	153
1977	52	12	64	50	50	100
 <u>SEPTEMBER</u>						
1973	48	8	56	34	73	107
1974	44	15	59	32	42	74
1975	45	40	85	79	107	186
1976	41	25	66	59	89	148
1977	119	26	145	47	48	95

TRAFFIC CITATIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	61	26	87	46	84	130
1974	53	26	79	55	70	125
1975	33	14	47	68	56	124
1976	33	21	54	49	89	138
1977	166	54	220	58	45	103
<u>NOVEMBER</u>						
1973	19	19	38	48	52	100
1974	21	23	44	44	65	109
1975	55	37	92	71	95	166
1976	87	132	219	44	154	198
1977	30	118	148	42	56	98
<u>DECEMBER</u>						
1973	77	11	88	42	72	114
1974	34	25	59	65	94	159
1975	75	30	105	87	100	187
1976	42	131	173	47	73	120
1977	35	31	66	28	43	71

TRAFFIC CITATIONS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	195	137	332	829	1,106	1,935
1974	343	368	711	648	668	1,316
1975	428	344	772	655	636	1,291
1976	269	314	583	553	549	1,102
1977	723	298	1,021	770	537	1,307
 <u>FEBRUARY</u>						
1973	1,936	163	2,099	459	487	946
1974	270	344	614	653	588	1,241
1975	324	173	497	661	532	1,193
1976	253	246	499	461	486	947
1977	320	327	647	494	456	950
 <u>MARCH</u>						
1973	174	1,346	1,520	262	611	873
1974	539	576	1,115	847	705	1,552
1975	290	235	525	492	559	1,051
1976	287	383	670	524	538	1,062
1977	295	515	810	531	585	1,116

TRAFFIC CITATIONS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	79	62	141	358	297	655
1974	368	538	906	797	764	1,561
1975	480	305	785	669	742	1,411
1976	289	284	573	565	583	1,148
1977	220	209	429	436	524	960
 <u>MAY</u>						
1973	84	41	125	516	162	678
1974	351	335	686	635	744	1,379
1975	396	268	664	690	666	1,356
1976	269	218	487	530	556	1,086
1977	454	259	713	562	469	1,031
 <u>JUNE</u>						
1973	154	123	277	168	932	1,100
1974	360	558	918	652	529	1,181
1975	203	309	512	542	520	1,062
1976	206	311	517	355	416	771
1977	286	345	631	504	465	969

TRAFFIC CITATIONS - DAYTIME

<u>JULY</u>	<u>NORTH</u>			<u>SOUTH</u>		
	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	83	34	117	106	238	344
1974	236	257	493	421	463	884
1975	95	169	264	247	273	520
1976	250	291	541	419	449	868
1977	190	186	376	369	358	727
<u>AUGUST</u>						
1973	54	29	83	211	454	665
1974	199	143	342	411	487	898
1975	142	92	234	213	240	453
1976	149	146	295	431	383	814
1977	190	135	325	344	350	694
<u>SEPTEMBER</u>						
1973	252	215	467	277	923	1,200
1974	350	237	587	513	570	1,083
1975	266	253	519	536	524	1,060
1976	283	236	519	428	468	896
1977	241	343	584	525	305	830

TRAFFIC CITATIONS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	342	470	812	690	711	1,401
1974	381	243	624	583	594	1,177
1975	245	152	397	470	475	945
1976	447	396	843	610	587	1,197
1977	458	295	753	516	338	854
 <u>NOVEMBER</u>						
1973	348	495	843	773	678	1,451
1974	306	342	648	581	622	1,203
1975	307	314	621	501	556	1,057
1976	351	351	702	1,087	624	1,711
1977	394	366	760	522	355	877
 <u>DECEMBER</u>						
1973	392	486	878	528	602	1,130
1974	331	320	651	562	603	1,165
1975	242	280	522	533	473	1,006
1976	273	464	737	549	520	1,069
1977	396	188	584	409	370	779

TABLE M

MEAN BLOOD ALCOHOL CONCENTRATIONS - 1977

<u>Weeks</u>	<u>Area A</u>	<u>Area B</u>	<u>City Wide</u>
1 (January)	.022	.034	.027
2	.024	.020	.022
3	.036	.031	.034
4	.030	.027	.028
5	.045	.029	.038
6 (February)	.027	.027	.027
7	.023	.033	.027
8	.033	.030	.032
9	.015	.022	.018
10 (March)	.032	.026	.030
11	.026	.018	.022
12	.018	.025	.021
13	.038	.026	.033
14 (April)	.034	.021	.028
15	.019	.031	.028
16	.020	.019	.020
17	.023	.024	.023
18	.027	.027	.027
19 (May)	.037	.040	.038
20	.028	.028	.028
21	.044	.039	.042
22	.051	.075	.061
23 (June)	.035	.034	.035
24	.031	.023	.028
25	.018	.026	.022
26	.024	.026	.025

<u>Weeks</u>	<u>Area A</u>	<u>Area B</u>	<u>City Wide</u>
27 (July)	.027	.022	.025
28	.028	.029	.029
29	.030	.027	.029
30	.038	.021	.031
31	.025	.029	.026
32 (August)	.023	.028	.025
33	.021	.017	.019
34	.031	.036	.033
35	.030	.022	.027
36 (September)	.018	.022	.019
37	.022	.020	.021
38	.018	.036	.025
39	.028	.019	.024
40 (October)	-	-	-
41	.033	.026	.030
42	.025	.019	.022
43	.032	.032	.032
44	-	-	-
45 (November)	.025	.017	.022
46	.026	.022	.024
47	.026	.038	.031
48	.026	.029	.027
49 (December)	.049	.042	.046
50	.027	.028	.027
51	.036	.021	.030
52	-	-	-
53	.023	.025	.024

TABLE N

B.A.C.'S OVER .10 AT ROADSIDE SURVEY

Weeks	City Wide		Area A		Area B	
	Participants	.10's	Participants	.10's	Participants	.10's
OCT. 75						
1	101	(13)	51	(7)	50	(6)
2	91	(10)	51	(3)	40	(7)
3	106	(14)	61	(8)	45	(6)
4	106	(8)	36	(1)	70	(7)
NOV.						
5	94	(9)	67	(6)	27	(3)
6	105	(12)	61	(6)	44	(6)
7	108	(5)	59	(4)	49	(1)
8	102	(7)	40	(5)	62	(2)
9	100	(11)	47	(7)	53	(4)
DEC.						
10	99	(4)	54	(2)	45	(2)
11	84	(7)	49	(4)	35	(3)
12	81	(7)	32	(3)	49	(4)
JAN. 76						
13	104	(5)	60	(3)	44	(2)
14	104	(7)	56	(3)	48	(4)
15	104	(7)	47	(2)	57	(5)
16	115	(8)	55	(5)	60	(3)
17	105	(12)	48	(3)	57	(9)
FEB.						
18	113	(8)	56	(3)	57	(5)
19	105	(10)	53	(4)	52	(6)

<u>Weeks</u>	<u>City Wide</u>		<u>Area A</u>		<u>Area B</u>	
	<u>Participants</u>	<u>.10's</u>	<u>Participants</u>	<u>.10's</u>	<u>Participants</u>	<u>.10's</u>
20	107	(9)	54	(3)	53	(6)
21	99	(0)	45	(0)	54	(0)
MAR.						
22	119	(7)	80	(5)	39	(2)
23	95	(5)	55	(4)	40	(1)
24	99	(0)	45	(0)	54	(0)
25	111	(5)	51	(2)	60	(3)
APR.						
26	112	(3)	61	(3)	51	(0)
27	103	(4)	60	(4)	43	(0)
28	114	(6)	59	(1)	55	(5)
29	101	(13)	50	(4)	51	(9)
MAY						
30	112	(9)	61	(5)	51	(4)
31	108	(5)	59	(3)	49	(2)
32	94	(10)	58	(6)	36	(4)
33	105	(7)	58	(4)	47	(3)
JUNE						
34	88	(4)	48	(3)	40	(1)
35	106	(12)	60	(6)	46	(6)
36	97	(5)	55	(2)	42	(3)
37	88	(3)	41	(3)	47	(0)
JULY						
38	119	(2)	60	(1)	59	(1)
39	104	(4)	53	(4)	51	(0)
40	100	(7)	41	(3)	59	(4)

Weeks	City Wide		Area A		Area B	
	Participants	.10's	Participants	.10's	Participants	.10's
41	106	(9)	45	(2)	61	(7)
42	118	(4)	58	(1)	60	(3)
AUG.						
43	105	(8)	59	(4)	46	(4)
44	97	(13)	46	(8)	51	(5)
45	112	(11)	51	(2)	60	(9)
SEPT.						
46	116	(9)	76	(8)	40	(1)
47	106	(12)	59	(6)	38	(6)
48	105	(12)	60	(8)	45	(4)
49	106	(5)	60	(3)	46	(2)
OCT.						
50	117	(10)	57	(5)	60	(5)
51	101	(8)	58	(4)	43	(4)
52	94	(4)	60	(2)	34	(2)
53	113	(13)	59	(4)	54	(9)
54	110	(6)	59	(4)	51	(2)
NOV.						
55	97	(8)	62	(5)	35	(3)
56	92	(4)	46	(4)	46	(0)
57	109	(7)	60	(3)	49	(4)
58	109	(2)	60	(2)	49	(0)
DEC.						
59	105	(5)	59	(3)	46	(2)
60	110	(5)	59	(3)	51	(2)
61	95	(9)	46	(7)	49	(2)

<u>Weeks</u>	<u>City Wide</u> <u>Participants .10's</u>		<u>Area A</u> <u>Participants .10's</u>		<u>Area B</u> <u>Participants .10's</u>	
JAN. 77						
62	106	(7)	60	(2)	46	(5)
63	100	(3)	60	(2)	40	(1)
64	108	(12)	61	(7)	47	(5)
65	98	(7)	60	(4)	38	(3)
66	106	(11)	58	(7)	58	(4)
FEB.						
67	109	(9)	60	(5)	49	(4)
68	108	(5)	60	(2)	48	(3)
69	103	(7)	60	(5)	43	(2)
70	100	(1)	58	(1)	42	(0)
MAR.						
71	105	(4)	60	(4)	45	(0)
72	113	(4)	60	(2)	53	(2)
73	103	(4)	59	(2)	44	(2)
74	106	(8)	61	(7)	45	(1)
APR.						
75	100	(6)	58	(6)	42	(0)
76	107	(5)	60	(1)	47	(4)
77	103	(4)	59	(2)	44	(2)
78	103	(3)	57	(1)	46	(2)
79	98	(5)	48	(3)	50	(2)
MAY						
80	109	(8)	71	(4)	38	(4)
81	104	(4)	59	(1)	45	(3)

Weeks	City Wide		Area A		Area B	
	Participants	.10's	Participants	.10's	Participants	.10's
82	80	(4)	49	(1)	31	(3)
83	98	(8)	57	(4)	41	(4)
JUNE						
84	109	(8)	56	(4)	53	(4)
85	97	(6)	60	(4)	37	(2)
86	104	(2)	60	(0)	44	(2)
87	113	(6)	60	(3)	53	(3)
JULY						
88	99	(3)	57	(1)	42	(2)
89	115	(12)	60	(5)	55	(7)
90	114	(10)	60	(5)	54	(5)
91	109	(10)	60	(7)	49	(3)
92	99	(6)	59	(3)	40	(3)
AUG.						
93	101	(5)	60	(2)	41	(3)
94	106	(1)	57	(1)	49	(0)
95	112	(12)	78	(8)	34	(4)
96	102	(6)	59	(4)	43	(2)
SEPT.						
97	100	(2)	60	(0)	40	(2)
98	78	(2)	49	(1)	29	(1)
99	100	(8)	60	(1)	40	(7)
100	111	(4)	61	(3)	50	(1)
OCT.						
101	103	(10)	60	(6)	43	(4)
102	98	(3)	58	(2)	40	(1)

<u>Weeks</u>	<u>City Wide</u>		<u>Area A</u>		<u>Area B</u>	
	<u>Participants</u>	<u>.10's</u>	<u>Participants</u>	<u>.10's</u>	<u>Participants</u>	<u>.10's</u>
103	104	(7)	59	(4)	45	(3)
NOV.						
104	105	(3)	60	(3)	45	(0)
105	102	(6)	60	(4)	42	(2)
106	104	(9)	57	(2)	47	(7)
107	107	(4)	67	(2)	40	(2)
DEC.						
108	111	(8)	59	(5)	42	(3)
109	112	(5)	60	(4)	52	(1)
110	96	(4)	54	(2)	42	(2)
111	98	(7)	53	(5)	45	(2)

TABLE 0

BAC FREQUENCIES FOR THE FOUR CITY DIVISIONS

	.000-.019		.020-.049		.050-.099		.100-.500	
	West	East	West	East	West	East	West	East
Oct.-Dec. 1975								
North	235	109	56	22	22	22	26	11
South	167	265	37	56	35	49	30	40
Jan.-June 1976								
North	571	245	96	44	66	43	37	17
South	397	589	81	120	73	109	46	81
July-Dec. 1976								
North	607	187	116	39	79	25	53	26
South	326	681	80	119	67	95	49	63
Oct.-Dec. 1976								
North	262	81	53	19	36	11	24	10
South	202	322	44	61	33	39	22	27
Jan.-Mar. 1976								
North	311	154	58	31	30	18	17	10
South	195	304	27	57	38	63	22	46
Apr.-Dec. 1976								
North	867	278	154	52	115	50	73	33
South	564	966	134	182	102	141	73	98
Jan.-Mar. 1977								
North	285	125	96	34	29	10	20	10
South	210	278	19	66	67	43	30	22
Apr.-Dec. 1977								
North	860	274	146	58	114	30	53	19
South	611	883	146	154	129	133	67	84
Oct.-Dec. 1977								
North	272	129	44	17	32	20	16	6
South	175	225	44	13	41	32	26	21

TABLE P

CHI-SQUARES FOR .10'S AT SURVEY

October-December 1975 vs. January-June 1976:

West Area:	$\chi^2 = 5.44$	$p < .05$	1976 < 1975
City Wide:	$\chi^2 = 4.50$	$p < .05$	1976 < 1975

October-December 1975 vs. July-December 1976:

No Significant Change

October-December 1975 vs. October-December 1976:

South Area:	$\chi^2 = 5.62$	$p < .05$	1976 < 1975
City Wide:	$\chi^2 = 4.10$	$p < .05$	1976 < 1975

October-December 1975 vs. January-December 1976:

West Area:	$\chi^2 = 3.88$	$p < .05$	1976 < 1975
City Wide:	$\chi^2 = 4.44$	$p < .05$	1976 < 1975

October-December 1975 vs. January-March 1977:

East Area:	$\chi^2 = 4.50$	$p < .05$	1977 < 1975
South Area:	$\chi^2 = 3.94$	$p < .05$	1977 < 1975
City Wide:	$\chi^2 = 6.80$	$p < .01$	1977 < 1975

October-December 1977 vs. April-December 1977:

West Area:	$\chi^2 = 8.62$	$p < .01$	1977 < 1975
North Area:	$\chi^2 = 4.98$	$p < .05$	1977 < 1975
South Area:	$\chi^2 = 7.45$	$p < .01$	1977 < 1975
City Wide:	$\chi^2 = 12.13$	$p < .01$	1977 < 1975

October-December 1975 vs. October-December 1977:

North Area:	$\chi^2 = 4.57$	$p < .05$	1977 < 1975
City Wide:	$\chi^2 = 5.66$	$p < .05$	1977 < 1975

TABLE Q

CHI-SQUARES FOR EXPERIMENT I FOR COLLISIONS

A. West-East Comparisons

Experimental Time

1. Alcohol Related Collisions
January through June

1975 vs. 1976 West Area: Not significant

1975 vs. 1976 East Area: $\chi^2 = 4.17$ $p < .05$ 1975 > 1976

1975 vs. 1976 city-wide: $\chi^2 = 6.52$ $p < .05$ 1975 > 1976

July through December

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 city-wide: Not Significant

2. Non-Alcohol Related Collisions
January through June

1975 vs. 1976 West Area: $\chi^2 = 6.08$ $p < .05$ 1975 > 1976

1975 vs. 1976 East Area: $\chi^2 = 5.77$ $p < .05$ 1975 > 1976

1975 vs. 1976 city-wide: $\chi^2 = 11.84$ $p < .01$ 1975 > 1976

July through December

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 city wide: $\chi^2 = 5.27$ $p < .05$ 1975 > 1976

Control Time

1. Alcohol Related Collisions
January through June

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 city wide: Not Significant

July through December

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

2. Non-Alcohol Related Collisions
January through June

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

July through December

1975 vs. 1976 West Area: $\chi^2 = 10.31$ $p < .01$ 1975 > 1976

1975 vs. 1976 East Area: $\chi^2 = 11.49$ $p < .01$ 1975 > 1976

1975 vs. 1976 City Wide: $\chi^2 = 7.72$ $p < .01$ 1975 > 1976

Daytime

1. Alcohol Related Collisions
January through June

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

July through December

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

2. Non-Alcohol Related Collisions
January through June

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: $\chi^2 = 6.74$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: Not Significant

July through December

1975 vs. 1976 West Area: Not Significant

1975 vs. 1976 East Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

B. North-South Comparisons

Experimental Time

1. Alcohol Related Collisions

January through June

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: $\chi^2 = 6.17$ $p < .05$ 1975 > 1976

July through December

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

2. Non-Alcohol Related Collisions

January through June

1975 vs. 1976 North Area: $\chi^2 = 4.8$ $p < .05$ 1975 > 1976

1975 vs. 1976 South Area: $\chi^2 = 7.04$ $p < .01$ 1975 > 1976

1975 vs. 1976 City Wide: $\chi^2 = 11.82$ $p < .01$ 1975 > 1976

July through December

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: $\chi^2 = 4.36$ $p < .05$ 1975 > 1976

1975 vs. 1976 City Wide: $\chi^2 = 5.27$ $p < .05$ 1975 > 1976

Control Time

1. Alcohol Related Collisions January through June

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

July through December

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

2. Non-Alcohol Related Collisions January through June

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

July through December

1975 vs. 1976 North Area: $\chi^2 = 4.88$ $p < .05$ 1975 > 1976

1975 vs. 1976 South Area: $\chi^2 = 17.15$ $p < .01$ 1975 > 1976

1975 vs. 1976 City Wide: $\chi^2 = 21.77$ $p < .01$ 1975 > 1976

Daytime

1. Alcohol Related Collisions January through June

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

July through December

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

2. Non-Alcohol Related Collisions
January through June

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: $\chi^2 = 9.84$ $p < .01$ 1975 < 1976

1975 vs. 1976 City Wide: Not Significant

July through December

1975 vs. 1976 North Area: Not Significant

1975 vs. 1976 South Area: Not Significant

1975 vs. 1976 City Wide: Not Significant

CHI-SQUARES FOR EXPERIMENT II FOR COLLISIONS

A. West-East Comparisons

Experimental Time

1. Alcohol Related Collisions January through March

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

2. Non-Alcohol Related Collisions January through March

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: $\chi^2 = 5.02$ $p < .05$ 1975 > 1977

April through December

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: $\chi^2 = 5.06$ $p < .05$ 1975 > 1977

1975 vs. 1977 City Wide: Not Significant

Control Time

1. Alcohol Related Collisions January through March

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: $\chi^2 = 4.89$ $p < .05$ 1975 > 1977

1975 vs. 1977 City Wide: Not Significant

2. Non-Alcohol Related Collisions
January through March

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

Daytime

1. Alcohol Related Collisions
January through March

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 West Area: $\chi^2 = 8.20$ $p < .01$ 1975 < 1977

1975 vs. 1977 East Area: Not Significant

1975 vs. 1977 City Wide: $\chi^2 = 7.49$ $p < .01$ 1975 < 1977

2. Non-Alcohol Related Collisions
January through March

1975 vs. 1977 West Area: Not Significant

1975 vs. 1977 East Area: $\chi^2 = 8.89$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 4.60$ $p < .05$ 1975 < 1977

April through December

1975 vs. 1977 West Area: $\chi^2 = 7.07$ $p < .01$ 1975 < 1977

1975 vs. 1977 East Area: $\chi^2 = 8.95$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 16.03$ $p < .01$ 1975 < 1977

B. North-South Comparison

Experimental Time

1. Alcohol Related Collisions
January through March

1975 vs. 1977 North Area: $\chi^2 = 4.92$ $p < .05$ 1975 < 1977

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

2. Non-Alcohol Related Collisions
January through March

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: $\chi^2 = 5.02$ $p < .05$ 1975 > 1977

April through December

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

Control Time

1. Alcohol Related Collisions
January through March

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

2. Non-Alcohol Related Collisions
January through March

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 North Area: $\chi^2 = 4.67$ $p < .05$ 1975 < 1977

1975 vs. 1977 South Area: $\chi^2 = 8.54$ $p < .01$ 1975 > 1977

1975 vs. 1977 City Wide: Not Significant

Daytime

1. Alcohol Related Collisions
January through March

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: Not Significant

April through December

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: $\chi^2 = 4.19$ $p < .05$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 7.49$ $p < .01$ 1975 < 1977

2. Non-Alcohol Related Collisions

January through March

1975 vs. 1977 North Area: Not Significant

1975 vs. 1977 South Area: $\chi^2 = 10.42$ $p < .01$ 1975 < 1977

1975 vs. 1977 City Wide: $\chi^2 = 4.60$ $p < .05$ 1975 < 1977

April through December

1975 vs. 1977 North Area: $\chi^2 = 17.58$ $p < .01$ 1975 < 1977

1975 vs. 1977 South Area: Not Significant

1975 vs. 1977 City Wide: $\chi^2 = 16.03$ $p < .01$ 1975 < 1977

CHI-SQUARES FOR CITY-WIDE COLLISIONS
FOR EXPERIMENT I AND EXPERIMENT II

Experimental Time

1. Alcohol Related Collisions

1975 vs. 1976 January-December: $\chi^2 = 4.69$ $p < .05$ 1975 > 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: Not Significant

2. Non-Alcohol Related Collisions

1975 vs. 1976 January-December: $\chi^2 = 16.62$ $p < .01$ 1975 > 1976

1975 vs. 1977 January-March: $\chi^2 = 5.02$ $p < .05$ 1975 > 1977

1975 vs. 1977 April-December: Not Significant

3. Total Collisions

1975 vs. 1976 January-December: $\chi^2 = 20.54$ $p < .01$ 1975 > 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: Not Significant

Control Time

1. Alcohol Related Collisions

1975 vs. 1976 January-December: $\chi^2 = 6.32$ $p < .05$ 1975 > 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: Not Significant

2. Non-Alcohol Related Collisions

1975 vs. 1976 January-December: $\chi^2 = 20.51$ $p < .01$ 1975 > 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: Not Significant

3. Total Collisions

1975 vs. 1976 January-December: $\chi^2 = 26.18$ $p < .01$ 1975 > 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: Not Significant

Daytime

1. Alcohol Related Collisions

1975 vs. 1976 January-December: Not Significant

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: $\chi^2 = 7.49$ $p < .01$ 1975 < 1977

2. Non-Alcohol Related Collisions

1975 vs. 1976 January-December: $\chi^2 = 4.46$ $p < .05$ 1975 < 1976

1975 vs. 1977 January-March: $\chi^2 = 4.60$ $p < .05$ 1975 < 1977

1975 vs. 1977 April-December: $\chi^2 = 16.03$ $p < .01$ 1975 < 1977

3. Total Collisions

1975 vs. 1976 January-December: $\chi^2 = 4.08$ $p < .05$ 1975 < 1976

1975 vs. 1977 January-March: Not Significant

1975 vs. 1977 April-December: $\chi^2 = 21.02$ $p < .01$ 1975 < 1977

TABLE R
ALCOHOL RELATED COLLISIONS BY YEARLY QUARTERS

Year Divisions	Experimental Time			
	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	18	29	18	29
1976	15	18	9	24
1977	30	29	34	25
<u>April-June</u>				
1975	24	29	18	34
1976	14	20	13	21
1977	18	27	16	29
<u>July-September</u>				
1975	19	32	21	30
1976	25	31	20	36
1977	20	23	13	30
<u>October-December</u>				
1975	28	31	17	42
1976	20	24	14	30
1977	34	34	36	32

ALCOHOL RELATED COLLISIONS BY YEARLY QUARTERS

Control Time

Year Divisions	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	22	22	13	31
1976	20	29	13	36
1977	17	22	14	25
<u>April-June</u>				
1975	32	36	22	46
1976	18	20	19	19
1977	30	23	18	35
<u>July-September</u>				
1975	32	42	32	42
1976	28	27	16	39
1977	32	25	20	37
<u>October-December</u>				
1975	25	29	18	36
1976	21	25	24	22
1977	33	29	18	44

ALCOHOL RELATED COLLISIONS BY YEARLY QUARTERS

Daytime

<u>Year Divisions</u>	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	19	39	9	49
1976	26	37	6	57
1977	23	24	5	52
<u>April-June</u>				
1975	18	33	13	38
1976	21	26	13	34
1977	34	35	16	53
<u>July-September</u>				
1975	11	31	10	32
1976	26	25	9	42
1977	31	37	17	51
<u>October-December</u>				
1975	32	36	17	51
1976	29	27	15	41
1977	32	45	26	51

NON-ALCOHOL RELATED COLLISIONS BY YEARLY QUARTERS

Experimental Time

Year Divisions	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	44	48	38	54
1976	27	24	23	28
1977	28	36	25	39
<u>April-June</u>				
1975	45	45	34	56
1976	32	39	25	46
1977	48	21	25	44
<u>July-September</u>				
1975	39	41	26	54
1976	28	31	17	42
1977	33	34	32	45
<u>October-December</u>				
1975	38	38	26	50
1976	31	28	25	34
1977	60	36	45	51

NON-ALCOHOL RELATED COLLISIONS BY YEARLY QUARTERS

Control Time

<u>Year Divisions</u>	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	45	40	32	53
1976	25	39	26	38
1977	42	47	42	47
<u>April-June</u>				
1975	47	48	29	66
1976	44	42	22	64
1977	54	46	42	58
<u>July-September</u>				
1975	61	81	44	98
1976	41	48	29	60
1977	40	53	38	55
<u>October-December</u>				
1975	41	48	27	62
1976	20	32	18	34
1977	64	44	53	55

NON-ALCOHOL RELATED COLLISIONS BY YEARLY QUARTERS

Daytime

Year Divisions	<u>WEST</u>	<u>EAST</u>	<u>NORTH</u>	<u>SOUTH</u>
<u>January-March</u>				
1975	341	420	275	486
1976	326	460	237	549
1977	336	511	255	592
<u>April-June</u>				
1975	330	423	243	510
1976	344	493	245	592
1977	359	459	293	525
<u>July-September</u>				
1975	345	432	232	545
1976	309	463	240	532
1977	372	499	277	594
<u>October-December</u>				
1975	367	460	318	509
1976	379	513	321	571
1977	436	515	399	552

ALCOHOL RELATED COLLISIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	3	1	4	3	6	9
1974	0	2	2	1	9	10
1975	2	1	3	4	3	7
1976	1	0	1	4	8	12
1977	6	8	14	5	7	12
 <u>FEBRUARY</u>						
1973	1	1	2	5	7	12
1974	3	3	6	9	4	13
1975	4	4	8	1	7	8
1976	1	0	1	2	1	3
1977	4	2	6	3	2	5
 <u>MARCH</u>						
1973	3	2	5	4	4	8
1974	2	3	5	7	7	14
1975	4	3	7	3	11	14
1976	2	5	7	5	4	9
1977	9	5	14	3	5	8

ALCOHOL RELATED COLLISIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	2	2	4	3	3	6
1974	1	0	1	2	6	8
1975	3	4	7	4	4	8
1976	0	5	5	3	0	3
1977	5	2	7	3	6	9
<u>MAY</u>						
1973	3	2	5	5	7	12
1974	1	1	2	5	6	11
1975	4	3	7	8	9	17
1976	1	1	2	4	7	11
1977	3	3	6	3	7	10
<u>JUNE</u>						
1973	0	3	3	4	5	9
1974	3	3	6	2	3	5
1975	3	2	5	2	7	9
1976	4	2	6	2	5	7
1977	0	3	3	4	6	10

ALCOHOL RELATED COLLISIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JULY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	0	2	2	2	4	6
1974	4	2	6	2	6	8
1975	3	2	5	2	9	11
1976	3	6	9	4	5	9
1977	2	3	5	5	5	10
 <u>AUGUST</u>						
1973	3	3	6	1	6	7
1974	3	2	5	6	4	10
1975	2	5	7	5	8	13
1976	1	2	3	4	12	16
1977	1	1	2	3	5	8
 <u>SEPTEMBER</u>						
1973	3	5	8	6	6	12
1974	4	6	10	4	8	12
1975	4	5	9	3	3	6
1976	6	2	8	7	4	11
1977	2	4	6	7	5	12

ALCOHOL RELATED COLLISIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	3	6	9	5	9	14
1974	5	1	6	4	6	10
1975	5	5	10	10	4	14
1976	2	4	6	7	6	13
1977	8	8	16	6	8	14
 <u>NOVEMBER</u>						
1973	0	2	2	4	9	13
1974	5	1	6	4	10	14
1975	0	3	3	8	7	15
1976	3	1	4	0	5	5
1977	4	3	7	2	5	7
 <u>DECEMBER</u>						
1973	7	3	10	2	5	7
1974	5	3	8	6	6	12
1975	2	2	4	3	10	13
1976	2	2	4	6	6	12
1977	9	4	13	5	6	11

ALCOHOL RELATED COLLISIONS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	2	4	6	6	6	12
1974	2	2	4	6	7	13
1975	0	0	0	4	11	15
1976	0	2	2	10	14	24
1977	0	2	2	3	6	9
<u>FEBRUARY</u>						
1973	2	1	3	4	6	10
1974	2	3	5	6	6	12
1975	2	4	6	6	15	21
1976	1	0	1	7	10	17
1977	1	0	1	9	8	17
<u>MARCH</u>						
1973	3	2	5	11	11	22
1974	0	3	3	6	9	15
1975	2	1	3	5	8	13
1976	1	2	3	7	9	16
1977	2	0	2	8	8	16

ALCOHOL RELATED COLLISIONS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	2	3	5	3	10	13
1974	1	2	3	3	7	10
1975	1	5	6	3	9	12
1976	4	2	6	5	9	14
1977	3	2	5	15	10	25
<u>MAY</u>						
1973	3	2	5	3	8	11
1974	2	2	4	11	17	28
1975	0	2	2	7	10	17
1976	1	0	1	4	7	11
1977	4	2	6	3	12	15
<u>JUNE</u>						
1973	1	2	3	5	12	17
1974	1	3	4	10	8	18
1975	3	2	5	4	5	9
1976	2	4	6	5	4	9
1977	3	2	5	6	7	13

ALCOHOL RELATED COLLISIONS - DAYTIME

<u>JULY</u>	<u>NORTH</u>			<u>SOUTH</u>		
	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	2	3	5	4	9
1974	1	0	1	5	8	13
1975	1	5	6	2	8	10
1976	1	2	3	13	7	20
1977	1	7	8	4	8	12
<u>AUGUST</u>						
1973	2	0	2	6	8	14
1974	3	1	4	8	10	18
1975	1	1	2	2	15	17
1976	1	0	1	4	10	14
1977	2	2	4	10	6	16
<u>SEPTEMBER</u>						
1973	2	0	2	7	16	23
1974	3	2	5	5	13	18
1975	1	1	2	4	1	5
1976	3	2	5	5	3	8
1977	2	3	5	12	11	23

ALCOHOL RELATED COLLISIONS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	4	5	6	10	16
1974	2	2	4	8	15	23
1975	3	4	7	9	10	19
1976	1	4	5	8	5	13
1977	1	2	3	8	8	16
<u>NOVEMBER</u>						
1973	5	5	10	6	8	14
1974	2	9	11	7	14	21
1975	1	4	5	8	9	17
1976	2	0	2	5	8	13
1977	5	6	11	5	10	15
<u>DECEMBER</u>						
1973	4	4	8	8	10	18
1974	2	7	9	7	9	16
1975	4	1	5	7	8	15
1976	4	4	8	9	6	15
1977	4	8	12	9	11	20

ALCOHOL RELATED COLLISIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	4	5	4	4	8
1974	0	2	2	5	9	14
1975	4	3	7	8	3	11
1976	2	2	4	3	11	14
1977	2	2	4	1	7	8
<u>FEBRUARY</u>						
1973	0	2	2	3	7	10
1974	1	2	3	4	4	8
1975	2	2	4	2	4	6
1976	1	2	3	3	2	5
1977	2	2	4	3	3	6
<u>MARCH</u>						
1973	0	2	2	8	3	11
1974	2	2	4	4	6	10
1975	1	1	2	5	9	14
1976	1	5	6	10	7	17
1977	2	4	6	7	4	11

ALCOHOL RELATED COLLISIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	0	1	5	4	9
1974	3	6	9	6	6	12
1975	5	5	10	12	6	18
1976	2	4	6	1	0	1
1977	3	1	4	6	7	13
<u>MAY</u>						
1973	3	1	4	2	6	8
1974	2	3	5	8	6	14
1975	1	2	3	4	9	13
1976	3	2	5	2	7	9
1977	5	2	7	6	5	11
<u>JUNE</u>						
1973	1	4	5	6	5	11
1974	2	1	3	5	5	10
1975	1	8	9	9	6	15
1976	5	3	8	5	4	9
1977	4	3	7	6	5	11

ALCOHOL RELATED COLLISIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JULY</u>	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	3	2	5	7	3	10
1974	3	5	8	5	4	9
1975	5	8	13	10	7	17
1976	2	2	4	9	3	12
1977	2	3	5	2	7	9
 <u>AUGUST</u>						
1973	2	3	5	8	5	13
1974	1	2	3	5	7	12
1975	3	8	11	9	9	18
1976	4	2	6	4	11	15
1977	8	1	9	9	6	15
 <u>SEPTEMBER</u>						
1973	1	1	2	3	8	11
1974	4	1	5	9	7	16
1975	2	4	6	3	4	7
1976	2	4	6	7	5	12
1977	2	4	6	9	4	13

ALCOHOL RELATED COLLISIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	4	5	9	8	10	18
1974	2	2	4	7	6	13
1975	3	4	7	3	4	7
1976	2	2	4	3	6	9
1977	1	4	5	8	9	17
 <u>NOVEMBER</u>						
1973	4	2	6	3	11	14
1974	1	4	5	2	12	14
1975	1	1	2	4	7	11
1976	6	6	12	1	4	5
1977	3	2	5	8	4	12
 <u>DECEMBER</u>						
1973	5	2	7	7	7	14
1974	0	5	5	6	9	15
1975	5	4	9	9	9	18
1976	4	4	8	5	3	8
1977	4	4	8	9	6	15

NON-ALCOHOL COLLISIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	3	6	9	5	4	9
1974	9	4	13	9	10	19
1975	7	7	14	5	9	14
1976	4	2	6	8	4	12
1977	6	4	10	3	8	11
<u>FEBRUARY</u>						
1973	4	3	7	12	10	22
1974	3	3	6	4	9	13
1975	8	3	11	9	13	22
1976	3	6	9	2	5	7
1977	2	4	6	5	11	16
<u>MARCH</u>						
1973	9	5	14	8	12	20
1974	7	7	14	7	15	22
1975	6	7	13	9	9	18
1976	5	3	8	5	4	9
1977	5	4	9	7	5	12

NON-ALCOHOL COLLISIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	2	4	6	8	8	16
1974	4	4	8	8	4	12
1975	10	4	14	12	11	23
1976	4	6	10	10	6	16
1977	8	2	10	5	4	9
<u>MAY</u>						
1973	5	3	8	10	7	17
1974	10	3	13	2	7	9
1975	3	8	11	8	13	21
1976	2	4	6	5	5	10
1977	8	0	8	13	6	19
<u>JUNE</u>						
1973	7	4	11	12	15	27
1974	11	3	14	5	13	18
1975	5	4	9	7	5	12
1976	4	5	9	7	13	20
1977	7	0	7	7	9	16

NON-ALCOHOL COLLISIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JULY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	1	2	3	9	10	19
1974	6	7	13	11	4	15
1975	7	6	13	13	11	24
1976	3	2	5	6	9	15
1977	9	4	13	6	10	16
<u>AUGUST</u>						
1973	8	5	13	6	10	16
1974	5	4	9	14	8	22
1975	2	3	5	9	14	23
1976	3	2	5	7	9	16
1977	9	3	12	13	5	18
<u>SEPTEMBER</u>						
1973	4	1	5	9	15	24
1974	8	3	11	9	6	15
1975	2	6	8	6	1	7
1976	3	4	7	6	5	11
1977	3	4	7	3	8	11

NON-ALCOHOL COLLISIONS - EXPERIMENTAL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	5	6	11	18	13	31
1974	9	8	17	14	12	26
1975	5	7	12	13	12	25
1976	4	2	6	4	13	17
1977	12	6	18	14	8	22
<u>NOVEMBER</u>						
1973	8	14	22	7	10	17
1974	2	9	11	7	16	23
1975	7	4	11	6	8	14
1976	7	5	12	4	3	7
1977	11	5	16	3	7	10
<u>DECEMBER</u>						
1973	8	4	12	12	12	24
1974	6	5	11	6	17	23
1975	2	1	3	5	6	11
1976	6	1	7	6	4	10
1977	8	3	11	12	7	19

NON-ALCOHOL COLLISIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JANUARY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	6	12	18	8	11	19
1974	7	5	12	8	8	16
1975	8	5	13	11	5	16
1976	3	5	8	8	4	12
1977	6	9	15	5	9	14
<u>FEBRUARY</u>						
1973	1	4	5	9	12	21
1974	5	1	6	8	10	18
1975	5	1	6	6	11	17
1976	2	6	8	3	11	14
1977	6	5	11	8	8	16
<u>MARCH</u>						
1973	3	4	7	9	8	17
1974	3	5	8	9	8	17
1975	5	8	13	10	10	20
1976	4	6	10	5	7	12
1977	8	8	16	9	8	17

NON-ALCOHOL COLLISIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	3	3	6	10	3	13
1974	4	5	9	10	12	22
1975	4	4	8	9	9	18
1976	4	4	8	8	15	23
1977	9	3	12	12	9	21
<u>MAY</u>						
1973	7	6	13	14	16	30
1974	2	5	7	12	10	22
1975	3	1	4	7	14	21
1976	5	1	6	9	11	20
1977	6	10	16	12	9	21
<u>JUNE</u>						
1973	5	8	13	14	17	31
1974	7	7	14	19	16	35
1975	11	6	17	13	14	27
1976	6	2	8	12	9	21
1977	8	6	14	7	11	18

NON-ALCOHOL COLLISIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>JULY</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	14	6	20	19	18	37
1974	7	12	19	12	9	21
1975	9	6	15	21	28	49
1976	8	4	12	5	9	14
1977	9	7	16	3	16	19
 <u>AUGUST</u>						
1973	8	12	20	21	22	43
1974	5	6	11	13	12	25
1975	4	9	13	9	18	27
1976	2	5	7	12	12	24
1977	7	5	12	12	12	24
 <u>SEPTEMBER</u>						
1973	6	2	8	17	27	44
1974	10	7	17	18	12	30
1975	8	8	16	10	12	22
1976	6	4	10	8	14	22
1977	5	5	10	4	8	12

NON-ALCOHOL COLLISIONS - CONTROL

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	5	4	9	14	6	20
1974	5	6	11	16	15	31
1975	5	4	9	11	9	20
1976	2	3	5	3	6	9
1977	7	4	11	9	7	16
 <u>NOVEMBER</u>						
1973	4	7	11	8	12	20
1974	2	7	9	8	11	19
1975	3	3	6	6	13	19
1976	3	2	5	5	8	13
1977	11	7	18	11	5	16
 <u>DECEMBER</u>						
1973	8	5	13	17	11	28
1974	11	7	18	13	7	20
1975	7	5	12	9	14	23
1976	4	4	8	3	9	12
1977	13	11	24	13	10	23

NON-ALCOHOL COLLISIONS - DAYTIME

<u>JANUARY</u>	<u>NORTH</u>			<u>SOUTH</u>		
	<u>A</u>	<u>B</u>	<u>I</u>	<u>A</u>	<u>B</u>	<u>I</u>
1973	46	38	84	96	133	229
1974	32	31	63	71	113	184
1975	48	41	89	52	95	147
1976	31	40	71	63	96	159
1977	36	38	74	48	107	155
<u>FEBRUARY</u>						
1973	48	32	80	72	109	181
1974	42	28	70	73	83	156
1975	44	44	88	68	99	167
1976	40	37	77	79	127	206
1977	44	41	85	76	97	173
<u>MARCH</u>						
1973	62	43	105	83	136	219
1974	34	44	78	74	95	169
1975	58	40	98	71	101	172
1976	40	49	89	73	111	184
1977	56	40	96	76	113	189

NON-ALCOHOL COLLISIONS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>APRIL</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	38	47	85	70	18	88
1974	50	41	91	82	115	197
1975	39	33	72	75	123	198
1976	31	49	80	66	113	179
1977	49	45	94	73	104	177
<u>MAY</u>						
1973	42	36	78	82	140	222
1974	48	35	83	78	108	186
1975	43	47	90	61	91	152
1976	39	51	90	89	128	217
1977	54	51	105	84	94	178
<u>JUNE</u>						
1973	37	37	74	80	116	196
1974	34	36	70	79	97	176
1975	37	44	81	75	85	160
1976	43	32	75	76	120	196
1977	40	54	94	59	111	170

NON-ALCOHOL COLLISIONS - DAYTIME

<u>JULY</u>	<u>NORTH</u>			<u>SOUTH</u>		
	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	41	40	81	65	112	177
1974	38	42	80	70	108	178
1975	38	42	80	66	93	159
1976	36	43	79	65	100	165
1977	46	41	87	82	115	197
<u>AUGUST</u>						
1973	35	37	72	96	47	143
1974	29	35	64	89	138	227
1975	36	31	67	75	125	200
1976	44	32	76	67	110	177
1977	35	55	90	69	119	188
<u>SEPTEMBER</u>						
1973	50	39	89	98	124	222
1974	55	37	92	92	146	238
1975	52	33	85	78	108	186
1976	41	44	85	56	134	190
1977	51	49	100	89	120	209

NON-ALCOHOL COLLISIONS - DAYTIME

	<u>NORTH</u>			<u>SOUTH</u>		
<u>OCTOBER</u>	<u>A</u>	<u>B</u>	<u>T</u>	<u>A</u>	<u>B</u>	<u>T</u>
1973	71	39	110	93	143	236
1974	62	41	103	92	137	229
1975	67	55	122	85	105	190
1976	59	48	107	67	130	197
1977	70	50	120	60	109	169
<u>NOVEMBER</u>						
1973	57	52	109	91	22	113
1974	42	56	98	69	99	168
1975	35	46	81	56	97	153
1976	55	43	98	69	121	190
1977	60	65	125	80	115	195
<u>DECEMBER</u>						
1973	59	50	109	66	137	203
1974	52	52	104	66	111	177
1975	54	61	115	70	96	166
1976	63	53	116	66	118	184
1977	96	58	154	70	118	188

TABLE S
CITY-WIDE COLLISIONS
 FOR 1975 THROUGH 1977

ALCOHOL RELATED COLLISIONS

	<u>Experimental</u>	<u>Control</u>	<u>Daytime</u>
1975	209 (162)	240 (196)	219 (161)
1976	167	188	217
1977	(156)	(172)	(214)

NON-ALCOHOL RELATED COLLISIONS

	<u>Experimental</u>	<u>Control</u>	<u>Daytime</u>
1975	338 (246)	411 (326)	3,118 (2,357)
1976	240	291	3,287
1977	(242)	(301)	(2,640)

TOTAL COLLISIONS

	<u>Experimental</u>	<u>Control</u>	<u>Daytime</u>
1975	547 (408)	651 (522)	3,337 (2,518)
1976	407	479	3,504
1977	(398)	(473)	(2,854)

() = 9 months data.

CITY-WIDE COLLISIONS
FOR RETURN TO BASELINE PERIOD

	<u>EXPERIMENTAL</u>	<u>CONTROL</u>	<u>DAYTIME</u>
<u>Alcohol Related</u>			
1975	47	44	58
1977	59	39	47
<u>Non-Alcohol Related</u>			
1975	92	85	761
1977	64	89	847
<u>Total</u>			
1975	139	129	819
1977	123	128	894

TABLE T

CHI-SQUARES FOR COMPARISON CITY DATA

Experimental Time

Stockton 1975 vs. 1976: $\chi^2 = 20.91$ $p < .01$ 1975 > 1976

Fresno 1975 vs. 1976: $\chi^2 = 11.94$ $p < .01$ 1975 < 1976

Modesto 1975 vs. 1976: $\chi^2 = 6.07$ $p < .05$ 1975 < 1976

Riverside 1975 vs. 1976: Not Significant

Bakersfield 1975 vs. 1976: Not Significant

Control Time

Stockton 1975 vs. 1976: $\chi^2 = 17.05$ $p < .01$ 1975 > 1976

Fresno 1975 vs. 1976: Not Significant

Modesto 1975 vs. 1976: Not Significant

Riverside 1975 vs. 1976: Not Significant

Bakersfield 1975 vs. 1976: $\chi^2 = 4.23$ $p < .05$ 1975 > 1976

Daytime

Stockton 1975 vs. 1976: $\chi^2 = 5.78$ $p < .05$ 1975 < 1976

Fresno 1975 vs. 1976: $\chi^2 = 18.65$ $p < .01$ 1975 < 1976

Modesto 1975 vs. 1976: Not Significant

Riverside 1975 vs. 1976: Not Significant

Bakersfield 1975 vs. 1976: Not Significant

TABLE U
C.H.P. COMPARISON CITY COLLISION DATA

	<u>Experimental Time</u>	<u>Control Time</u>	<u>Daytime</u>
<u>Stockton</u>			
1975	759	881	3,533
1976	591	716	3,738
<u>Fresno</u>			
1975	1,139	1,347	5,219
1976	1,310	1,327	4,787
<u>Modesto</u>			
1975	608	769	2,974
1976	697	750	3,067
<u>Riverside</u>			
1975	633	694	2,804
1976	654	730	2,922
<u>Bakersfield</u>			
1975	656	666	3,361
1976	608	593	3,369

TABLE V

COST PER D.U.I. ARREST MADE BY THE
TRAFFIC TASK FORCE OFFICER

	<u>EXPERIMENT I</u>	<u>EXPERIMENT II</u>
Management (40% time)	\$ 15,878	\$ 13,652
Enforcement (includes overtime)	108,302	94,282
Dispatcher	--	5,687
Training	--	4,587
Equipment (vehicles)	18,732	12,956
Evaluation (20% time)	2,989	3,840
Total Costs	\$145,901	\$135,004
Total D.U.I. Arrests	1,324	1,566
Cost Per D.U.I. Arrest	\$ 110	\$ 87

TABLE W
COSTS FOR PROJECT SIMILAR TO STOCKTON'S

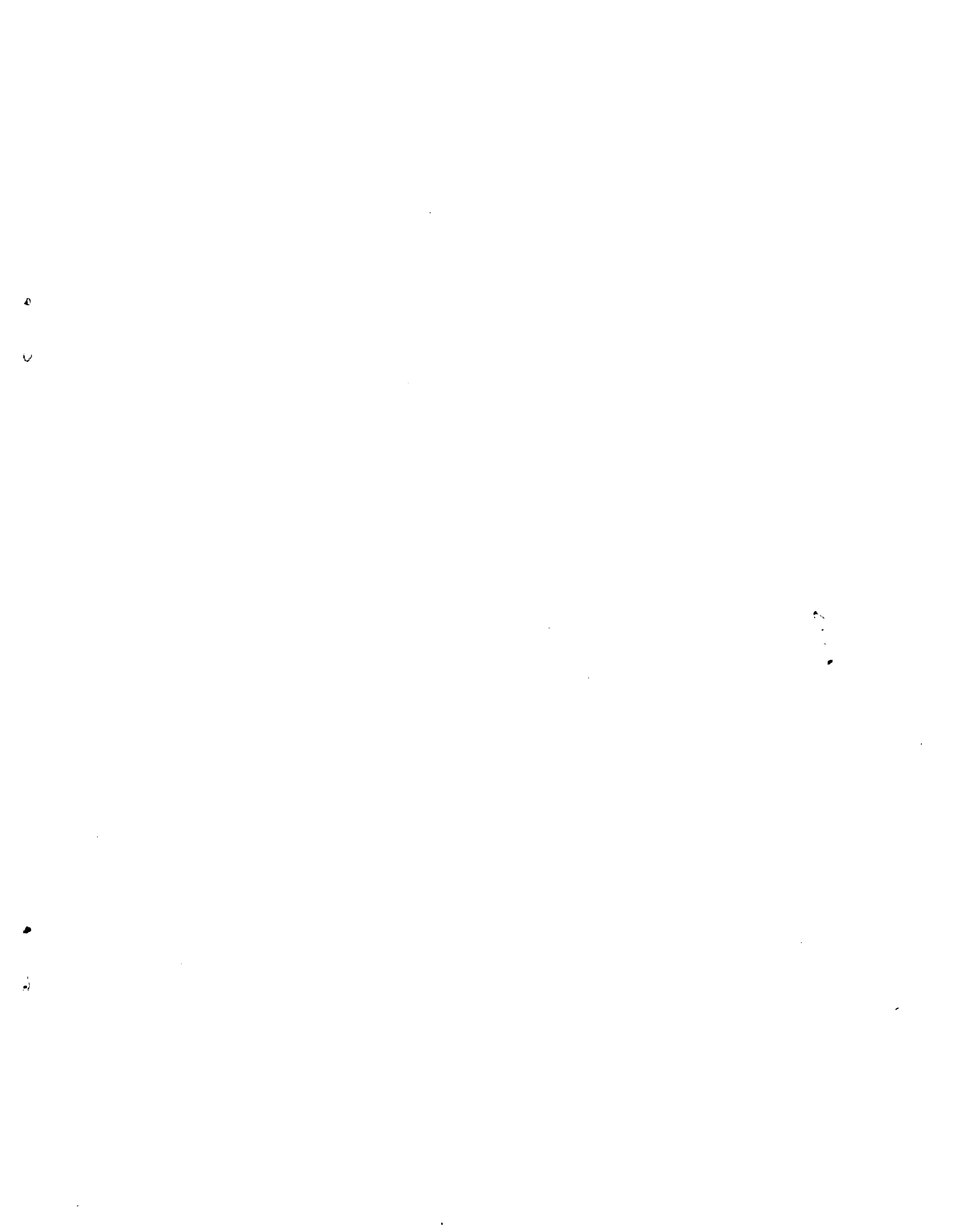
	<u>EXPERIMENT I</u>	<u>EXPERIMENT II</u>
Management Coordinator at 16 hours per week	\$ 9,618	\$ 10,458
Enforcement	108,302	94,282
Equipment	18,732	12,956
Total Costs	136,652	117,696
Total D.U.I. Arrests	1,324	1,566
Cost Per D.U.I. Arrest	\$ 103	\$ 75

TABLE X
COST PER D.U.I. ARREST FOR
 THE REGULAR PATROL

	<u>EXPERIMENT I</u>	<u>EXPERIMENT II</u>
Enforcement	\$ 9,209	\$ 10,130
Equipment	1,823	2,188
Total Cost	11,032	12,318
Total D.U.I. Arrests	201	248
Cost Per D.U.I. Arrest	\$ 55	\$ 50

TABLE Y
ESTIMATED COST FOR D.U.I.'S MADE
 BY THE TRAFFIC TASK FORCE

	<u>1976</u>	<u>1977</u>
Jail, No Fine		
1,900 days	\$ 33,250	
2,184 days		\$ 38,220
Jail, Plus Fine		
2,840 days	\$ 49,700	
3,276 days		\$ 57,330
Alcohol Rehabilitation		
115 cases	\$138,000	
140 cases		\$168,000
D.W.I. School		
378 cases	\$ 13,230	
437 cases		\$ 15,295
Total Costs	\$234,180	\$278,845



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