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**INCREASED D.U.I. ENFORCEMENT PROGRAM
Stockton, California Project Evaluation**

Contract No. DOT-HS-5-01194

January 1977

Interim Report

PREPARED FOR:

**U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
WASHINGTON, D.C. 20590**

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16. Abstract <p>This report concerns the evaluation of the first six-month operational phase of the Increased D.U.I. Enforcement Demonstration Project in Stockton, California. The D.U.I. Enforcement Program involves the use of varying levels of personnel specifically for the purpose of detecting and apprehending persons driving under the influence of intoxicants. A team of ten officers was assigned to saturate operational Area "B" for six months. Their effect on alcohol-related accidents, BAC levels of drivers and street crimes during experimental times was evaluated and compared to other times of the day, to the control area and to baseline years.</p> <p>As might be expected, our D.U.I. arrest rate per officer increased over previous years. A study of the data indicates there was a significant decrease in total collisions in Areas A and B summed together. Further, the results show the Traffic Task Force did impact Area B in the reduction of D.U.I. collisions and total collisions. There were, however, no significant changes in the BAC levels or street crime arrests when compared to baseline years.</p>					
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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

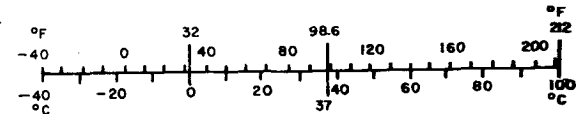


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DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

TECHNICAL SUMMARY

CONTRACTOR	CONTRACT NUMBER
Stockton Police Department, Stockton, California	DOT-HS-5-01194
REPORT TITLE	REPORT DATE
Increased D.U.I. Enforcement Program in Stockton, California	30 June 1976
REPORT AUTHOR(S) Janet Hause, Douglas Matheson, Roseanne Hannon, Edward Chavez	

Deaths caused by alcohol-related traffic accidents have long been a source of concern to jurisdictions throughout the country. Previous research studies have indicated Friday and Saturday nights between 2000 and 0400 hours are critical time periods for persons to be driving under the influence of intoxicants and for alcohol-related crashes to occur. Various research methods and projects have been implemented in the past in order to develop and define corrective measures. Stockton's Increased D.U.I. Enforcement Program funded by the U. S. Department of Transportation's National Highway Traffic Safety Administration is one such effort.

The D.U.I. Enforcement Program was granted as a demonstration project utilizing an effort which will be something more than another crackdown on drunk driving. The project objectives have been identified as the following:

1. Demonstrate and document the impact of varying levels of D.U.I. enforcement on:
 - a. Crashes (specifically alcohol-related crashes);
 - b. Proportions of drivers at illegal blood alcohol levels;
 - c. Non-traffic offenses (specifically street crime);
2. Determine the cost-effectiveness of various levels of enforcement and derive cost-benefit relationships as feasible.

The major objective of this project is to significantly reduce the number of alcohol-related vehicle accidents and the proportion of persons driving at illegal blood alcohol concentrations during the critical experimental hours on Friday and Saturday nights. In utilizing varying levels of saturation enforcement, this demonstration project is attempting to determine and document the number of enforcement personnel needed in each target area to attain the objectives. In addition to the enforcement levels, optimum lengths of time necessary for impact are also being analyzed in order to derive a cost-beneficial effort which will be feasible for other jurisdictions and agencies.

The Increased D.U.I. Enforcement Project was granted to the Stockton, California Police Department in the form of a cost-reimbursable contract. The

(Continue on additional pages)

"PREPARED FOR THE DEPARTMENT OF TRANSPORTATION, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION UNDER CONTRACT NO.: DOT-HS-5-01194. THE OPINIONS, FINDINGS, AND CONCLUSIONS EXPRESSED IN THIS PUBLICATION ARE THOSE OF THE AUTHORS AND NOT NECESSARILY THOSE OF THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION."

Police Department is the prime contractor, has overall project responsibility, and conducts all enforcement and related activities. The University of the Pacific, as subcontractor, is responsible for the evaluation design, collection and analysis of roadside survey data, and the analysis of all enforcement activity related to the D.U.I. team and the resulting effects.

The duration of the contract period at the present time is four years having commenced on 1 July 1975. The initial six-month period was utilized as a "gearing up" phase during which time the evaluation design, budget and detail plan were formalized. Collection of BAC baseline data was initiated in October 1975 at the roadside survey sites. Additionally, selection of qualified volunteer officers was made and the D.U.I. training for these personnel was completed during this time.

The enforcement operations phase of the project began on 1 January 1976 and is expected to be a three-year effort. The current design plan calls for the utilization of a ten-man D.U.I. Traffic Task Force team for six-month periods in each of the two operational areas during the first year. During the first six months, Area "B" (east side) was designated as the experimental area with a concentrated D.U.I. effort. Area "A" (west side) was maintained as a control area having pre-project levels of D.U.I. enforcement.

For the purposes of this project and in order to be able to document and evaluate the effect of the Traffic Task Force on the design plan, the City of Stockton was divided into two operational areas. The division of the city was based on traffic volume, drinking establishments, and socioeconomic status considerations to assure comparability. Additionally, the separation was made to allow for similarities in crash experiences in each area during the experimental times.

The City of Stockton is located on 33 square miles in the great Central Valley and has a population of approximately 200,000 in the metropolitan area. The city is serviced by two major state highways, an inland seaport and several airline and railroad companies. In addition to many trade, transportation and manufacturing industries, Stockton is located within one of the country's richest agricultural areas. As a result, there is a large transient population which must be accounted for in any area which is studied.

PROJECT RESULTS

During the current reporting period, the key evaluation questions studied were: (1) The comparison of all baseline data (total collisions, D.U.I. collisions, BAC levels of roadside survey, D.U.I. arrests, traffic citations, street crimes, and street crime arrests) for January through June 1973 through 1975 with January through June 1976 and; (2) An analysis of the Traffic Task Force's performance during January through June 1976.

Area B was designated the experimental area with Area A acting as the control area. The data for the key evaluation measures was collected for January through June 1976 to determine what, if any, impact the Traffic Task Force had on the City of Stockton.

The data showed that the experimental area had significantly less total collisions and D.U.I. collisions during the experimental time period. The control area had less total collisions over all time periods, but the D.U.I. collisions remained the same as baseline. In both areas, neither street crimes nor street crime arrests were impacted by the Traffic Task Force. The BAC levels obtained at the roadside survey sites showed no change from baseline for either area.

The results suggest that the presence of the Traffic Task Force did impact Area B (experimental time) in reducing total collisions and D.U.I. collisions during the first six months of its operation. No conclusive remarks can be made about the degree of impact until the data is collected after the switch over of the Traffic Task Force to Area A. If at that time, the collision data for Area B reflects a sudden increase, the hypothesis that the Traffic Task Force did impact Area B will be supported more strongly.

The results of the first six months of the Traffic Task Force revealed several key points. The Traffic Task Force yield significantly more D.U.I. arrests and traffic citations than the Regular Patrol. The Traffic Task Force activity summary showed that the average BAC for D.U.I. arrests remained constant and the frequency of D.U.I. arrests was increasing significantly. There was no apparent difference in Traffic Task Force performance as a function of different shift supervisors. The number of days worked and the number of field contacts were important variables in the prediction of the number of D.U.I. arrests obtained per week. There was no significant difference between Regular Patrol and TTF miles driven per hour. The TTF did not significantly impact the number of criminal arrests or the amount of property recovered.

The data indicate that the Traffic Task Force is impacting the drinking driver population of the City of Stockton.

III. FISCAL AND PERSONNEL REVIEW

The differences in the planned and actual salaries 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. Generally speaking, those key personnel who could make allowable charges to the contract did not use the projected amount of hours. It was found the project could be managed effectively with the amount of time actually reported.

The actual amount of salaries in enforcement differs from the planned figure due to the number of officers who underwent the D.U.I. training. The initial number of officers was estimated at 65. However, there were 58 volunteers who met the necessary criteria and who were trained. The salary for an officer working enforcement at time and one half was based at top step. There are numerous officers working on the project who are at one or two steps below the top level accounting for additional differences in the planned and actual figures. Facility alterations necessary for the continuance of this program were estimated at \$4,520 in the Detail Plan based on City Engineer approximations. Actual costs were somewhat less after bids awarded to a commercial firm. Work product and alterations were no less in quality than had originally been required in specifications.

The total expenditures in the evaluation area reflect spending for a 12-month period out of a total 15-month cost-reimbursable contract. The full amount of the contract will be paid even though the current actual charges are not matching the projected amounts.

PERSONNEL AND FISCAL EXPENDITURE REPORT

QUARTER ENDING June, 1976

ACTIVITY AREAS	Personnel				Expenditures Incurred					
	Reporting Quarter				Reporting Quarter		Prior Quarter		Cumulative Total	
	Professional		Clerical		Planned	Actual	Planned	Actual	Planned	Actual
	Planned	Actual	Planned	Actual						
ACTIVITY #1 - <u>MANAGEMENT</u>										
Salaries	1.5	1.5	1	1	11,051	11,073	11,414	11,040	45,295	43,470
Equipment						-	-	-	-	-
Materials						-	-	-	-	-
Facilities						-	-	-	-	-
Services (A. Young Contract)					2,105	2,105	10,641	10,641	22,500	22,500
Travel					2,432	-	-	(91)	5,101	2,268
TOTAL					15,588	13,178	22,055	21,590	72,896	68,238
ACTIVITY #2 - <u>ENFORCEMENT</u>										
Salaries	11	11	-	-	28,219	28,219	26,564	26,564	86,927	82,782
Equipment					-	-	-	-	-	-
Materials					8,580	4,381	8,580	4,565	17,160	8,946

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PERSONNEL AND FISCAL EXPENDITURE REPORT

QUARTER ENDING June, 1976

ACTIVITY AREAS	Personnel				Expenditures Incurred					
	Reporting Quarter				Reporting Quarter		Prior Quarter		Cumulative Total	
	Professional		Clerical		Planned	Actual	Planned	Actual	Planned	Actual
	Planned	Actual	Planned	Actual						
Facilities					-	-	-	-	4,520	2,295
Services					-	-	-	-	-	-
Travel					-	-	-	-	1,124	1,124
TOTAL					36,799	32,600	35,144	31,129	109,731	95,147
ACTIVITY #3 - EVALUATION										
Salaries	1.5	1.5	.6	.6	8,173	8,224	8,173	8,979	32,691	32,906
Equipment					-	-	-	-	-	-
Materials					1,063	407	1,063	1,063	4,251	2,136
Facilities					-	-	-	-	-	-
Services					-	-	-	-	-	-
Travel					-	-	-	-	-	521
TOTAL					9,236	8,631	9,236	10,042	36,942	35,563

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IV. PERFORMANCE REPORTS

Management

January 1, 1976, marked the commencement of the enforcement phase of the Increased D.U.I. Enforcement Project. Revisions to the original Detail Plan were submitted in January and again in April. These adjustments were necessary in order to effectively document and assess the effects of the TTF on the program objectives. One of the management's primary tasks during this six-month period involved assisting the University of the Pacific in designing a workable plan and in making the revisions to the Detail Plan and budget.

The present evaluation design plan calls for the concentrated enforcement effort in Area B for six months and then in Area A for six months. After this initial 12-month period, there will be three months of zero enforcement. This will be a time of assessment and evaluation to determine the trend of the accident rates and the TTF effect, if any. After this, enforcement will consist of a six-man TTF team in Area A for four months and then in Area B also for four months. This will be followed by one month of zero enforcement and then eight months of enforcement with an eight-man team (four months in each area) and one month of no enforcement. It is proposed the remainder of the three-year enforcement operation will utilize four men.

During the first six months of 1976, the subcontracts with Arthur Young Company were finalized and completed. These contracts provided for consulting and programming work toward revisions of our existing Traffic Records System. Collision selective retrieval, citation selective retrieval, officer performance data, and crime and arrest data were modified to accommodate the desired requirements of this project. The data necessary to perform the evaluation is now capable of being collected, retrieved and analyzed. Another service which was found to be vital to determining cost-effectiveness was the determination of fines and dispositions. As a result, a contract will be sought with San Joaquin County to generate the desired data.

At the outset of the enforcement phase, a group of citizens having interests in the liquor industry met with the Chief of Police to discuss the impact of the Increased D.U.I. Enforcement Program on their respective businesses. The liquor representatives were under the impression the D.U.I. units would be sitting in front of bars to discourage citizens from going in and to check all those who did come out of a bar. Additionally, the group stated they did not want the police to circle around the bars waiting for people or to make traffic stops in front of their businesses. These citizens were advised that it was not our practice to sit on bars in an attempt to apprehend intoxicated drivers. If an incident did occur whereby an officer was believed to be sitting on a bar, the concerned citizen was asked to contact the Watch Commander who would investigate and remedy the situation. The bar owners were further advised vehicles would continue to be stopped wherever necessary and the areas in front and around their businesses would not be deliberately avoided as stop locations. The meeting between the Chief and the business concerns was given wide coverage

by the newspaper and television media. The result of the meeting and the publicity was overwhelming support of the D.U.I. Program in Stockton by the citizenry.

Since that time the vocal opposition to the project has been minimal and there is a cooperative exchange between management and the concerned citizenry.

Enforcement

The Increased D.U.I. Enforcement commenced on January 2, 1976 with a force of ten officers and one D.U.I. supervising sergeant. During the first three months, the TTF officers appeared to be screening their traffic stops very closely. A possible reason for this was the publicity exerted by the liquor concern and the potential complaints of harassment against the TTF. The outcome of this was a fairly low number of traffic stops and and proportionate number of drunk driving arrests. During the following months a different approach to enforcement tactics was emphasized which produced a steady increase in arrests. It was felt an increase in both moving and mechanical violations would give the officers more exposure to the public and would give them the opportunity to come in contact with more possible drunk drivers. Field contacts increased over 29 percent and total stops realized a 27 percent increase over the first quarter. The additional activities had the resulting effect of increasing the D.U.I. arrests by 20 percent over the initial three months.

During the six-month "gearing-up" phase, 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 lack of volunteers for the program. A request for the selection and training of additional personnel was submitted to and approved by the CTM.

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. Additionally, the City of Stockton rather than the D.U.I. contract covered the costs of training which were on an overtime basis.

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 8-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 will work and the productivity statistics for these personnel will be tabulated separately from our original group. As in the past, all data pertaining to D.U.I. production will be compiled by the Police Department and turned over to the University of the Pacific.

Evaluation

The evaluation aspect of the Increased D.U.I. Enforcement Program has been progressing very well during this six-month enforcement period and for the total of the first fiscal year. A main course of involvement has been the monitoring of the project operations and the revisions to the plan to derive a more effective design.

The University staff has shown to be very professional and competent in their efforts to make this a successful program. Problems which have arisen have always been solved or corrected on a cooperative basis.

A very critical aspect of the total D.U.I. Project is the roadside surveys conducted through the University of the Pacific. The caliber of people selected and trained to handle the interviews has been very high and has been a contributing factor to the success and high citizen participation at our survey sites.

TABLE OF KEY EVALUATION MEASURES

Key Evaluation Measures	Report Year - FY 1976			
	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			1.16	1.33
- Planned			2	2

V. ANALYTIC STUDIES

A. Index and Abstracts of Analytic Studies

1. Comparison of all baseline data (total collisions, D.U.I. collisions, BAC levels of roadside survey, street crimes, and street crime arrests) for January through June 1973, 1974 and 1975, with January through June 1976.
2. Analysis of Traffic Task Force performance during January through June 1976.

ABSTRACT

COMPARISON OF ALL BASELINE DATA WITH JANUARY THROUGH JUNE, 1976

The objective of this analytic study was to determine what, if any, impact the Traffic Task Force had on the City of Stockton when compared to the baseline years. During this time, Area B was designated the experimental area with Area A acting as the control area. The data for the key evaluation measures was collected for January through June 1976.

Chi-squares were performed on all data (excluding BAC level measures) with the following results: (1) There was a significant decrease ($p < .05$) in total collisions in Areas A and B summed together in the first six months of 1976 when compared to 1975; (2) Area B (experimental area) had significantly less ($p < .01$) total collisions in 1976 than in 1975 while Area A did not; (3) There was a significant decrease ($p < .05$) in D.U.I. collisions in Areas A and B summed together in the first six months of 1976 when compared to 1975; (4) Area B had significantly less ($p < .05$) D.U.I. collisions in the first six months of 1976 when compared to 1975 while Area A did not; (5) Area B in 1976 had significantly more ($p < .05$) robberies, burglaries, and auto thefts than Area A in 1976; (6) There was not a significant change in the number of street crime arrests in either Area A or B during the experimental time in 1976 when compared to 1975; (7) There was not a significant change in BAC levels at the roadside survey in either Area A or B in the first six months of 1976 when compared to the three months of baseline in 1975.

The results suggest that the presence of the Traffic Task Force did impact Area B (experimental area) in reducing total collisions and D.U.I. collisions during the first six months of its operation. No conclusive remarks can be made about the degree of impact until the data is collected after the switchover of the Traffic Task Force to Area A. If at that time the collision data for Area B reflect a sudden increase, the hypothesis that the Traffic Task Force did impact Area B will be supported more strongly.

OBJECTIVES AND EVALUATION QUESTIONS TO BE ANSWERED

The overall project objectives related to this study are to demonstrate and document the impact of varying levels of D.U.I. enforcement in Area B on:

- a. Collisions
 1. Total
 2. D.U.I.
- b. Roadside survey blood alcohol concentrations of drivers
- c. Street crime
- d. Street crime arrests

The evaluation questions related to the project objectives are:

- (1) Is there a significant difference between total collisions in either Area A or Area B during the first six months of 1976 when compared to baseline years?
- (2) Is there a significant difference between D.U.I. related collisions in either Area A or Area B during the first six months of 1976 when compared to baseline years?
- (3) Is there a significant difference in blood alcohol concentrations of drivers in Area A or Area B during the first six months of 1976 when compared to baseline months, October through December 1975?
- (4) Is there a significant difference between Area A and Area B for five categories of street crime (robbery, burglary, assault, auto theft, and theft from person) during the first six months of 1976 when compared to baseline years?
- (5) Is there a significant difference between Area A and Area B for five categories of street crime arrests (robbery, burglary, assault, auto theft, and theft from person) during the first six months of 1976 when compared to baseline years?

BACKGROUND

In March 1973, Stockton initiated a Selective Traffic Enforcement Project (STEP) which was funded by the State of California. At the beginning of the project, it was found that there was a need for some form of program to attack the drinking driver program. The STEP Project accounted for 53 percent of all drinking driver arrests made by the Stockton Police Department. At the end of the project, there were no officers assigned specifically to drinking driver enforcement due to lack of funds.

The Stockton Police Department responded to a request for proposals for Increased D.U.I. Enforcement by NHTSA and was awarded the contract in July, 1975.

The D.U.I. Enforcement Program will be utilizing varying levels of enforcement in an effort to impact the following objectives:

1. Reductions in accidents;
2. Reduction in blood alcohol content levels of drivers on Friday and Saturday nights between the hours of 8 p.m. and 4 a.m.;
3. A decrease in street crimes (specifically robbery, burglary, assaults, grand theft, and auto theft).

The proposed evaluation design involves the following enforcement levels:

1. 6 months of 10 officers in Area B
2. 6 months of 10 officers in Area A
3. 3 months of 0 officers in either area

If D.U.I. effort does not prove to be successful between areas or over time, the maximum enforcement level will be continued until significance at the $p < .05$ level has been demonstrated for total collisions and roadside survey BAC levels.

METHODOLOGY

The evaluation design involved dividing the City of Stockton into two areas, A and B, each having similar collision experience on Friday and Saturday nights from 8 p.m. to 4 a.m. Other similarities such as traffic flow, drinking establishments, and socioeconomic levels were also equated. To ensure that the designated areas were not significantly different during baseline on the evaluation measures, the baseline data was analyzed comparing Area A to Area B.

The key evaluation measures (collisions, BAC levels, street crime, and street crime arrests) will be divided into subdivisions in the remainder of this report to facilitate ease of presentation.

TOTAL COLLISION DATA

Methodology

The total collision data covers a six-month period from January 1, 1976 through June 30, 1976. The data is broken down by months. There are three

different time conditions: Daytime - 4 a.m. to 8 p.m. seven days a week; Experimental Time - 8 p.m. to 4 a.m. on Friday and Saturday nights; and Control Time - 8 p.m. to 4 a.m. during the remaining nights of the week (Sunday through Thursday). Data is also analyzed by two areas of the city, A and B.

The source of the data is the computerized Traffic Records System of the City of Stockton. The collision data was obtained on magnetic tape for analysis by the evaluators of the University of the Pacific (UOP). This taped data file contains about six percent more collisions than the reported collision records in Stockton Police Department (SPD). This discrepancy is due to different treatment of collisions reported to the California Highway Patrol (CHP). Stockton's Traffic Records System data includes only collisions reported to the CHP. As this has been constant across past time, each set of data is probably valid and internally consistent.

Data processing done at UOP was accomplished primarily through the use of the Statistical Package for the Social Sciences, version 5.01.051.

Results and Discussion

Figures 1 and 2 contain the basic data. Figure 1 shows the number of total collisions in Area A during Experimental Time for January through June 1976 compared to the same time period in 1975. Figure 2 shows the corresponding data for Area B.

Comparisons of Area A and Area B for each time condition and each year for the collision data was accomplished with the chi-square statistic. Chi-square values are reported in Table 1. Table 2 shows the total number of collisions for each time condition and area for the period of January through June 1973 through 1976. (Table A in Section VII contains the information displayed in Figures 1 and 2.)

Chi-squares for the Experimental Time period yield the following results:

1. There was a significant ($p < .005$) decrease in total collisions in the first six months of 1976 (January - June pooled over months and areas) when compared to 1975.
2. There was not a significant difference between Area A and B for either 1975 or 1976.
3. Both Area A and Area B had significantly ($p < .01$) less collisions in 1976 than 1975.
4. A summary of the findings for the other baseline years compared to 1976 showed:
 - Area A in 1976 had significantly ($p < .025$) less collisions than Area A in 1973;
 - Area A in 1976 had significantly ($p < .001$) less collisions than Area A in 1974.

- There was not a significant difference in collisions when 1976 was compared to 1973 for Area B.
- Area B in 1976 had significantly ($p < .05$) less collisions than Area B in 1974.

Conclusions

The significant decrease in total collisions in both Area A and Area B in 1976 when compared to the baseline years, 1973 - 1975, indicates that the citizens of Stockton responded to the presence of the Traffic Task Force in Area B, and that this response may have generalized to Area A as well.

The Chi-squares for the Control Time (Sunday through Thursday 8 p.m. to 4 a.m.) yielded mixed findings.

1. Area A had significantly ($p < .01$) less total collisions than Area B during 1976.
2. Area A in 1976 had significantly ($p < .005$) less collisions than Area A in either 1974 or 1975.
3. The comparison of Area B, 1976 with baseline years was not significant.

Conclusions

There was no difference in frequency of collisions from 1973 to 1976 in Area B while Area A showed considerable variability. The fact that Area B during the control time did not yield significant results as it did during the experimental time indicates that there was a differential effect of the Traffic Task Force in Area B.

The Chi-squares for the Daytime period (all days during 4 a.m. to 8 p.m.) showed the following results:

1. Area A had significantly ($p < .05$) less collisions than Area B in both 1975 and 1976.
2. Area A in 1976 had significantly ($p < .05$) less collisions when compared with baseline years 1973 - 1975.
3. Area B in 1976 had significantly ($p < .01$) more collisions than either 1974 or 1975.

Conclusions

The daytime data for Area B in 1976 shows a higher frequency than the baseline years. Further, Area B shows more collisions than Area A across all years. Area A showed a significant decrease in 1976 over the baseline years but Area B does not.

The total collision data when compared for all time periods strongly suggests that the independent variable (Traffic Task Force) in fact did

impact Area B differently than Area A. The reduction in collisions in Area A during the Experimental Time may be attributed to one or both of the following:

1. The effect of the Traffic Task Force in Area B may have generalized to Area A, since Stockton is a small city.
2. Since there was also a significant reduction in collisions in Area A during Control Time and Daytime, the significant reduction during Experimental Time may simply reflect a general decrease in collisions over all time (possibly resulting from greater use of Interstate 5 due to a new on-ramp in town which opened in 1975).

The reduction in collisions in Area B during Experimental Time, however, seems to reflect the presence of the Traffic Task Force since collisions have not changed over time during Control Time and have significantly increased during Daytime.

The current switching of the Traffic Task Force to Area A should help clarify matters. If reduction of collisions in both areas remain about the same or decreases, the first six months data are probably due to generalization. If the number of collisions in Area A decreases even more, the number in Area B increases, discrimination between the two areas would be indicated.

In an attempt to determine the cause of the decrease in collisions in Area A during the operational period, two additional studies were conducted. An analysis of the changes in collision patterns from 1975 to 1976 showed that collision reductions were not specific to either Area A or Area B. An analysis of the changes in traffic flow patterns also showed no significant change as a function of either Area A or Area B. Both studies are located in Section VI.

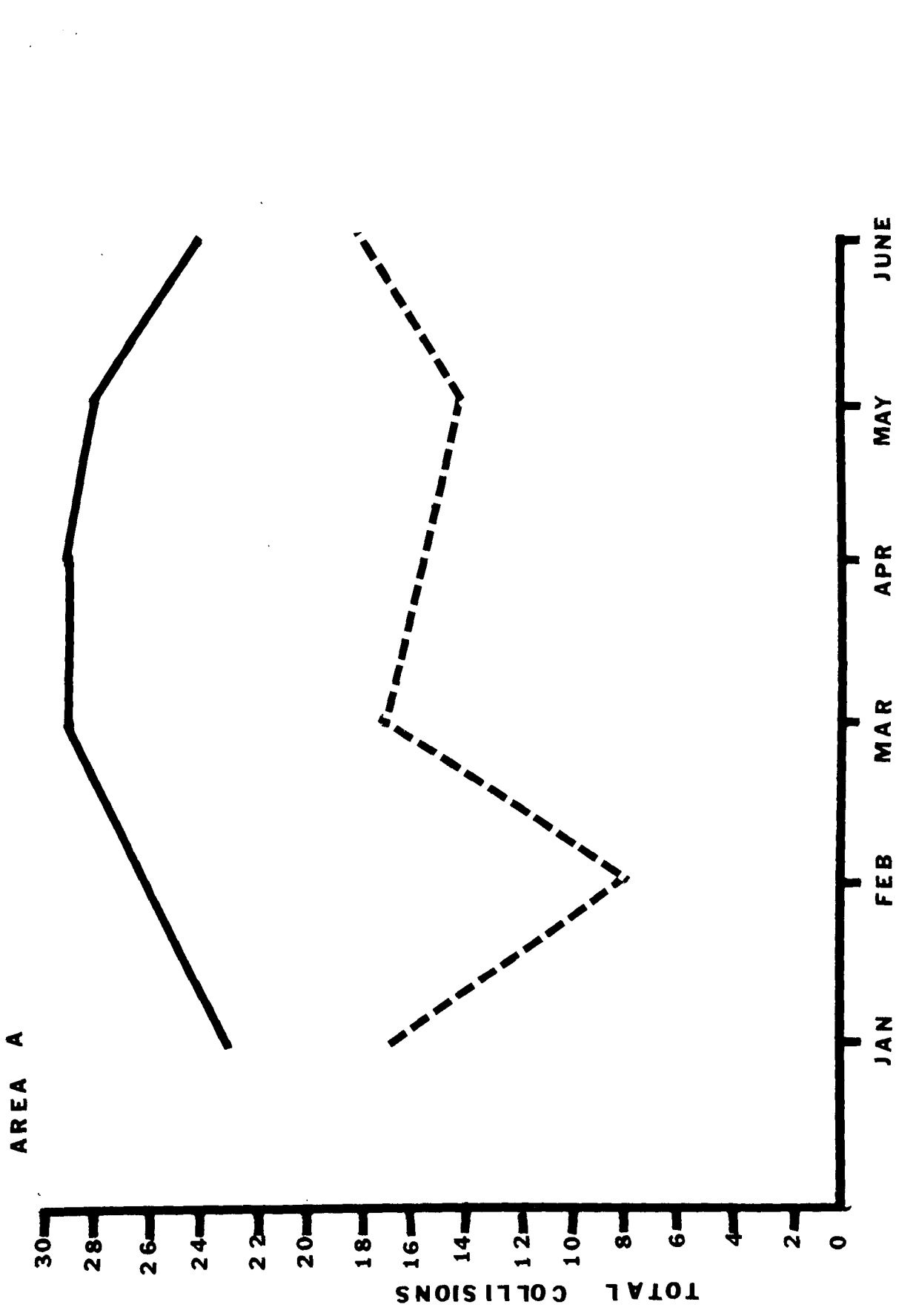


FIGURE 1. TOTAL COLLISIONS IN AREA A DURING 1975 AND 1976

— 1975
- - - 1976

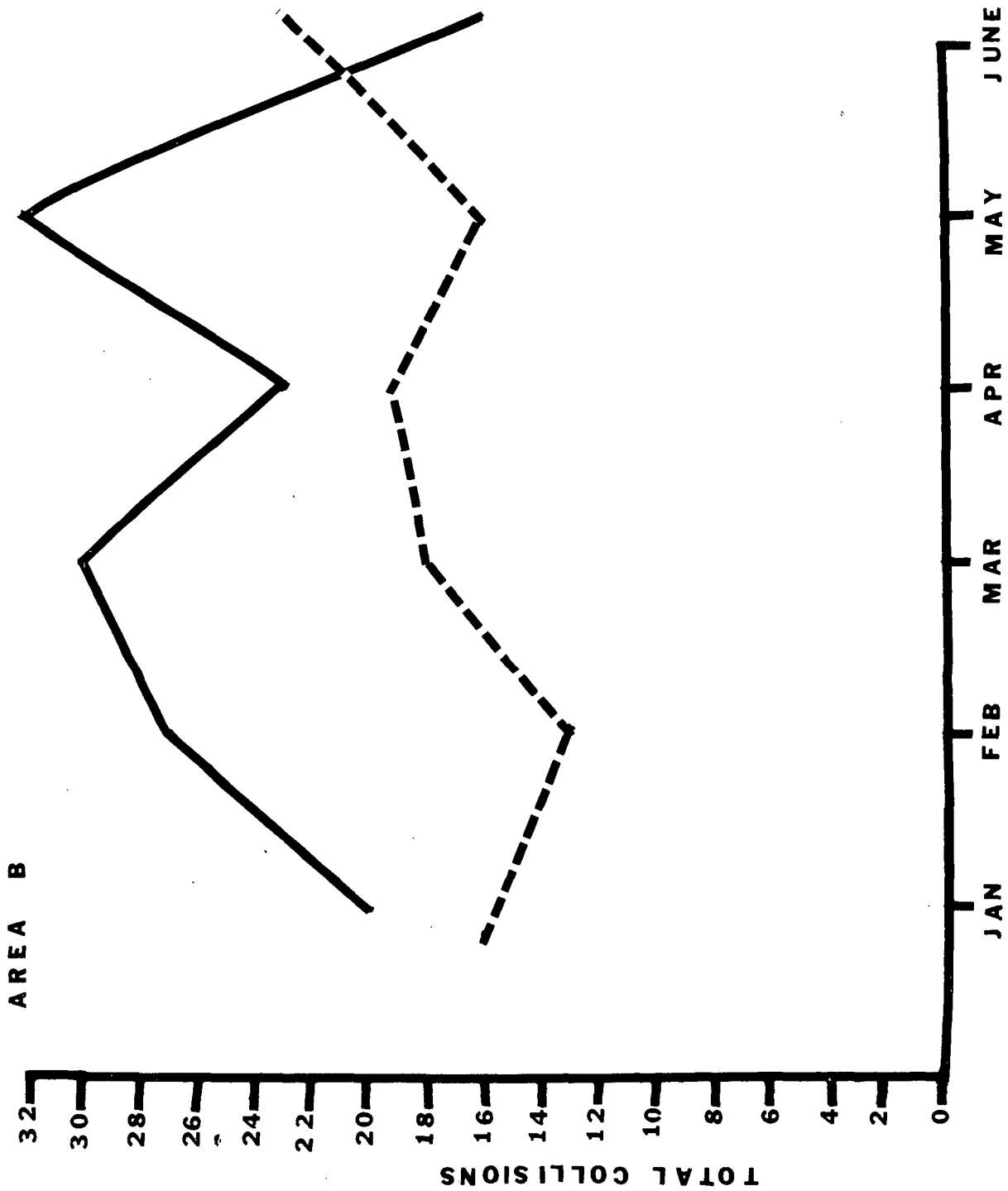


FIGURE 2 TOTAL COLLISIONS IN AREA B DURING BASELINE AND JANUARY THROUGH JUNE 1976

TABLE 1

CHI-SQUARES FOR COMPARISON OF COLLISIONS OVER TIME

Experimental Time:	1976 vs. 1975 for A; $\chi^2 = 19.76$	$p < .005$	1975 > 1976
	1976 vs. 1975 for B; $\chi^2 = 7.68$	$p < .01$	1975 > 1976
	1976 vs. 1974 for A; $\chi^2 = 30.16$	$p < .001$	1974 > 1976
	1976 vs. 1974 for B; $\chi^2 = 6.76$	$p < .025$	1974 > 1976
	1976 vs. 1973 for A; $\chi^2 = 4.88$	$p < .025$	1973 > 1976
	1976 vs. 1973 for B; $\chi^2 = 1.28$	N.S.	
Control Time:	1976 vs. 1975 for A; $\chi^2 = 13.64$	$p < .005$	1975 > 1976
	1976 vs. 1975 for B; $\chi^2 = 0$	N.S.	
	1976 vs. 1974 for A; $\chi^2 = 12.13$	$p < .005$	1974 > 1976
	1976 vs. 1974 for B; $\chi^2 = .48$	N.S.	
	1976 vs. 1973 for A; $\chi^2 = .21$	N.S.	
	1976 vs. 1973 for B; $\chi^2 = .016$	N.S.	
Daytime:	1976 vs. 1975 for A; $\chi^2 = 4.75$	$p < .05$	1975 > 1976
	1976 vs. 1975 for B; $\chi^2 = 9.71$	$p < .01$	1975 < 1976
	1976 vs. 1974 for A; $\chi^2 = 13.99$	$p < .01$	1974 > 1976
	1976 vs. 1974 for B; $\chi^2 = 12.01$	$p < .01$	1974 < 1976
	1976 vs. 1973 for A; $\chi^2 = 4.75$	$p < .05$	1973 > 1976
	1976 vs. 1973 for B; $\chi^2 = .14$	N.S.	

TABLE 2

COLLISIONS FOR JANUARY THROUGH JUNE

	<u>EXPERIMENTAL</u>		<u>CONTROL</u>		<u>DAYTIME</u>	
	A	B	A	B	A	B
1973	121	125	123	150	821	1,047
1974	156	132	173	145	881	910
1975	159	148	177	158	821	916
1976	90	105	114	158	737	1,065

D.U.I. COLLISIONS

Methodology

The D.U.I. collision data covers a six-month period from January 1, 1976 through June 30, 1976. The data is broken down by months and conditions paralleling those for the total collision data. The D.U.I. collision criterion is for the driver of the vehicle cited for the collision. The D.U.I., as defined in III-34 of the Traffic Records System, includes categories B (HBD - under influence), C (HBD - not under influence) and D (HBD - impairment unknown).

Results and Discussion

Figures 3 and 4 contain the basic data. Figure 3 shows the number of D.U.I. collisions in Area A during Experimental Time for January through June 1976 compared to the same period in 1975. Figure 4 shows the corresponding data for Area B.

Comparisons of Area A and Area B for each time condition and each year for the D.U.I. collision data was accomplished with the chi-square statistic. Chi-square values are reported in Table 3. Table 4 shows the total number of collisions for each time condition and area for the period of January through June, 1973 through 1976. (Table B in Section VII contains the information displayed in Figures 3 and 4.)

The chi-squares performed during Experimental Time showed:

1. Area A in 1976 had significantly ($p < .05$) less D.U.I. collisions than 1974 or 1975.
2. Area B in 1976 had significantly ($p < .05$) less D.U.I. collisions than 1975.
3. Area A and Area B in 1976 were not significantly different. The chi-squares for the D.U.I. collisions during Control Time showed:
 - a. There was not a significant difference in either Area A or Area B in 1976 when compared to baseline years.
 - b. When combined across all years, Area A has significantly ($p < .01$) less D.U.I. collisions than Area B.

The chi-squares for the D.U.I. collisions during the Daytime period showed:

1. There was not a significant difference in either Area A or Area B in 1976 when compared to baseline years.

Conclusion

D.U.I. collisions in both Area A and Area B for the year 1976 during Experimental time were significantly less than either 1975 or 1974. Both

Area A and Area B did not significantly change during the Control period and Daytime. Therefore, the effect of the Traffic Task Force is indicated but seems to have generalized to Area A as well as impacting directly on Area B.

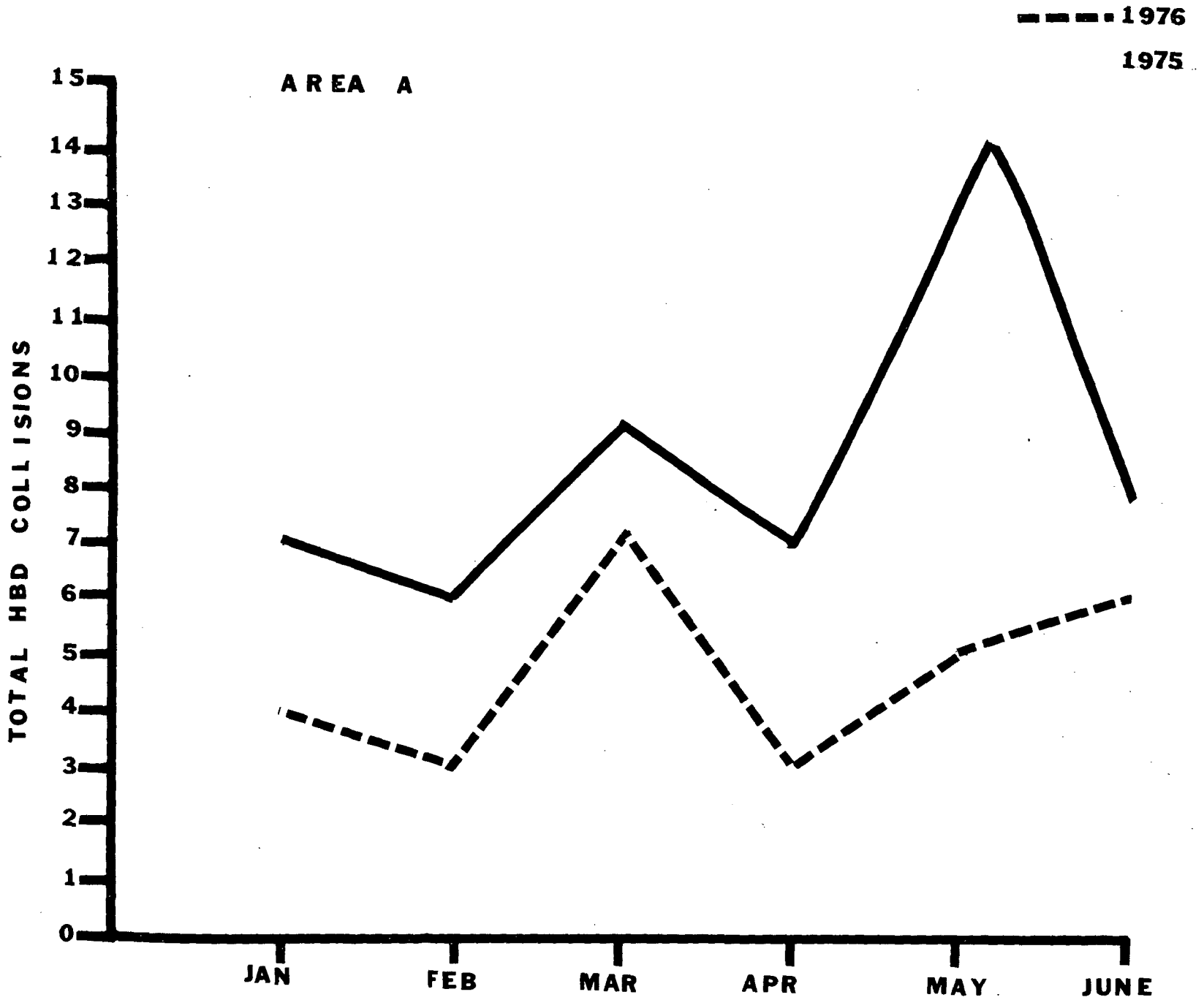


FIGURE 3 HBD COLLISIONS DURING BASELINE AND JANUARY THROUGH JUNE 1976

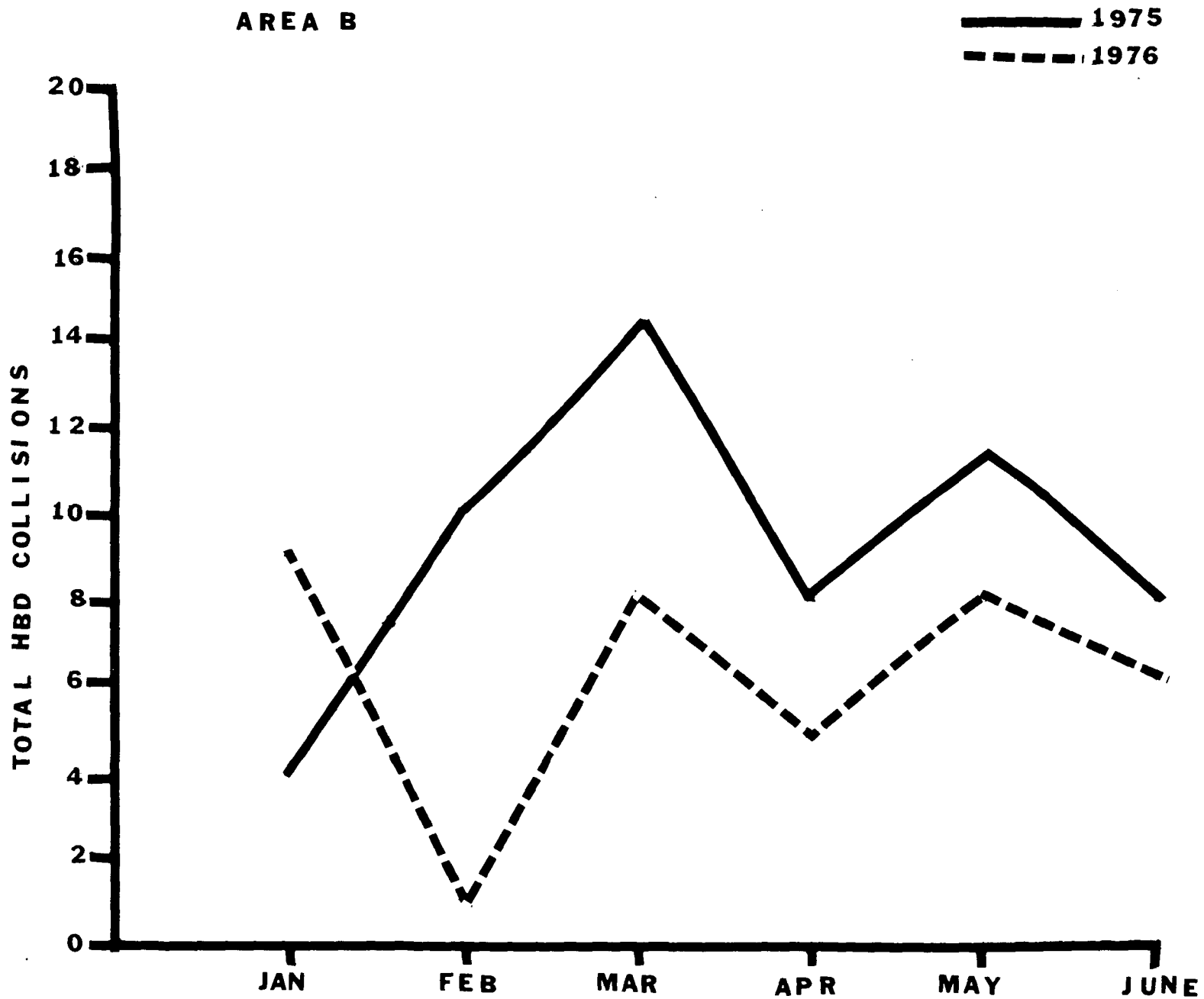


FIGURE 4 HBD COLLISIONS DURING BASELINE AND JANUARY THROUGH JUNE 1976

TABLE 3

CHI-SQUARES FOR COMPARISON OF D.U.I. COLLISIONS

Experimental Time:	1976 vs. 1975 for A; $\chi^2 = 11.31$	$p < .01$	1976 < 1975
	1976 vs. 1975 for B; $\chi^2 = 3.52$	$p < .05$	1976 < 1975
	1976 vs. 1974 for A; $\chi^2 = 3.66$	$p < .05$	1976 < 1975
	1976 vs. 1974 for B; $\chi^2 = 1.67$	N.S.	
	1976 vs. 1973 for A; $\chi^2 = 1.86$	N.S.	
	1976 vs. 1973 for B; $\chi^2 = .32$	N.S.	
Control Time:	1976 vs. 1975 for A; N.S.		
	1976 vs. 1975 for B; N.S.		
	1976 vs. 1974 for A; N.S.		
	1976 vs. 1974 for B; N.S.		
	1976 vs. 1973 for A; $\chi^2 = 4.16$	$p < .05$	1976 > 1973
	1976 vs. 1973 for B; $\chi^2 = 8.81$	$p < .05$	1976 > 1973
Daytime:	1976 vs. 1975 for A; N.S.		
	1976 vs. 1975 for B; N.S.		
	1976 vs. 1974 for A; N.S.		
	1976 vs. 1974 for B; N.S.		
	1976 vs. 1973 for A; N.S.		
	1976 vs. 1973 for B; N.S.		

TABLE 4

D.U.I. COLLISION FOR JANUARY THROUGH JUNE

	<u>Experimental</u>		<u>Control</u>		<u>Daytime</u>	
	A	B	A	B	A	B
1973	38	42	34	45	45	68
1974	43	49	50	55	56	68
1975	50	55	43	73	55	51
1976	28	37	41	66	48	68

ANALYSIS OF TRAFFIC TASK FORCE PERFORMANCE

ABSTRACT

The objective of this analytic study was to determine the changes in performance of the officers working on the Traffic Task Force in the City of Stockton. During January through June 1976, 10 one-man cars were deployed in Area B during the hours of 8 p.m. to 4 a.m. on Friday and Saturday nights. The Traffic Task Force's primary function was to detect and apprehend legally intoxicated motor vehicle drivers.

The results of the first six months of the Traffic Task Force revealed several key points. The Traffic Task Force produced significantly more D.U.I. arrests and traffic citations than the Regular Patrol. The Traffic Task Force activity summary showed that the average BAC for D.U.I. arrests remained constant and the frequency of D.U.I. arrests was increasingly significant. There was no apparent difference in Traffic Task Force performance as a function of different shift supervisors. The number of days worked and the number of field contacts were important variables in the prediction of the number of D.U.I. arrests obtained per week. There was no significant difference between Regular Patrol and TTF miles driven per hour. The TTF did not significantly impact the number of criminal arrests or the amount of property recovered. There were significantly more ($p < .01$) D.U.I. arrests in both Area A and B the first six months of 1976 when compared to 1975. There were significantly more ($p < .01$) traffic citations in Area B during the Experimental Time during the first six months of 1976 when compared to 1975.

OBJECTIVES AND EVALUATION QUESTIONS TO BE ANSWERED

The objectives and evaluation questions related to Traffic Task Force performance are as follows:

- (1) What is the nature of the Traffic Task Force activity summary per month for January through June 1976?
- (2) What will be the effect of participation in TTF enforcement on individual officer performance?
- (3) Are there any significant differences in Traffic Task Force performance as a function of different shift supervisors?
- (4) What is the relationship between number of days participating in Traffic Task Force, number of field contacts, and total number of drunk drivers arrested?
- (5) How do the Traffic Task Force and Regular Patrol compare with respect to traffic citations and D.U.I. arrests?

- (6) How do the cost effectiveness measure of man hours worked and number of miles driven compare for the Regular Patrol versus the Traffic Task Force?
- (7) What is the distribution of criminal arrests and amount of property recovered made by the Traffic Task Force for January through June 1976?
- (8) Is there a significant difference between Area A and Area B for D.U.I. arrests during the first six months of 1976 when compared to baseline years?
- (9) Is there a significant difference between Area A and Area B for traffic citations during the first six months of 1976 when compared to baseline years?

BACKGROUND

In March, 1973, Stockton initiated a Selective Traffic Enforcement Project (STEP) which was funded by the State of California. At the beginning of the project, it was found that there was a need for some form of program to attack the drinking driver program. The STEP Project accounted for 53 percent of all drinking driver arrests made by the Stockton Police Department. At the end of the project, there were no officers assigned specifically to drinking driver enforcement due to lack of funds.

The Stockton Police Department responded to a request for proposals issued by NHTSA and was awarded the contract in July, 1975.

The D.U.I. Enforcement Project has been utilizing varying levels of enforcement in an effort to impact the following objectives:

1. Reductions in accidents
2. Reduction in blood alcohol content levels of drivers on Friday and Saturday nights between the hours of 8 p.m. and 4 a.m.
3. A decrease in street crimes (specifically robbery, burglary, assaults, grand theft and auto theft).

If D.U.I. enforcement effort does not prove to be successful between areas or over time, the maximum enforcement level will be continued until significance at the $p < .05$ level has been demonstrated for total collisions and roadside survey BAC levels.

Methodology

Fifty-eight officers volunteered for deployment on the Stockton Traffic Task Force. The officers were given a 40-hour training course developed by NHTSA and conducted by a trained SPD lieutenant. The officers were given

a pre-post questionnaire. There was no significant difference between the pre-post test measures.

Officer and shift supervision data was recorded weekly and summarized by the administrative staff of the SPD monthly. The data was forwarded to the evaluators on hardcopy. All analysis was done by the evaluators.

ANALYSIS OF TRAFFIC TASK FORCE ACTIVITY SUMMARY FOR JANUARY THROUGH JUNE 1976

Methodology

Data for individual Traffic Task Force officer performance was collected weekly and reported to the evaluators monthly. This data was summed for each month over all officers working the Traffic Task Force for January through June, 1976.

Results and Discussion

Table G in Section VII contains the Traffic Task Force activity summary from January through June, 1976. The most important statistic in the table is the average D.U.I. per man. A linear regression analysis showed a significant increase ($p < .05$) in the number of D.U.I. arrests over the six-month period. Because the average D.U.I. blood alcohol level remained fairly constant while the number of arrests increased indicate that the Traffic Task Force officers are discriminating properly. Field contacts are also increasing supporting the earlier conclusion that increased field contacts yield an increased number of drunk drivers. Traffic citations are similarly up over the six-month period. Detention and release statistics do not change significantly over months.

The data indicate that the Traffic Task Force's activities have an impact on the driving while intoxicated population.

EFFECT OF D.U.I. ENFORCEMENT ON INDIVIDUAL OFFICER ACTIVITY

Methodology

Data for traffic citations and D.U.I. arrests for the period of January through June, 1975, was compared to the data for January through June, 1976, for each Traffic Task Force officer.

Results and Discussion

A one tailed t-test for both D.U.I. arrests and traffic citations was performed and showed a significant increase ($p < .005$) in the number of D.U.I. arrests. There was no significant difference in the number of traffic

citations written from 1975 to 1976. Table H in Section VII shows the number of traffic citations and D.U.I. arrests for each of the Traffic Task Force officers.

The data suggests that the officers on the Traffic Task Force have increased their ability to detect and apprehend drunk drivers.

ANALYSIS OF TRAFFIC TASK FORCE SUPERVISORS' PERFORMANCE

Methodology

Data for the number of D.U.I. arrests and days worked for each of the ten Traffic Task Force Supervisors was collected for January through June of 1976 to test whether the Traffic Task Force Supervisors may differentially influence the performance of the Traffic Task Force officers.

Results and Discussion

The hypothesis of differential influence was tested using days worked and proportion of D.U.I.s arrested and showed no significant difference in Traffic Task Force performance per supervisor. The range of D.U.I. arrests was 10.51 to 13.84 arrests per supervisor shift with a mean of 12.18. Table I in Section VII shows the mean number of D.U.I. arrests per shift per supervisor.

ANALYSIS OF THREE VARIABLES ON TRAFFIC TASK FORCE PERFORMANCE

Methodology

In order to determine whether there is a relationship between days worked, number of field contacts, and number of D.U.I. arrests on Traffic Task Force performance, data was collected for January through June, 1976.

Results and Discussion

Table J in Section VII shows the results of the analysis. A multiple regression statistic yielded an $r = .81$ ($p < .01$). The results suggest that an individual officer's arrest frequency is highly correlated with the number of days previously worked and the number of field contacts. Based on the multiple regression analysis the Evaluator made suggestions to the police department on how to increase D.U.I. arrests. The suggestions were: (1) eliminate low producers from the officer pool (low producers were defined as officers making .70 D.U.I. arrests or less per night worked) and; (2) eliminate all officers who have volunteered less than three nights in the six-month operational period.

The analysis suggests that the more field contacts an officer makes, the greater the impact on D.U.I. arrests.

D.U.I. ARRESTS

Methodology

The D.U.I. arrest data covers January 1, 1976 through June 30, 1976. The data is analyzed according to years, months, areas, and experimental time. As with the collision data, the data source is the City of Stockton's Traffic Records System.

Preliminary examination of the D.U.I. arrest data showed that the ratio of 23101 to 23102 offenses was about 2.5 to 97.5, so it was decided to combine these two categories into a single D.U.I. category. The SPD label "driving while under the influence" applies to this single category. Citation 23101 is defined as a citation involving "influence of alcohol or alcohol and drugs causing death or injury" and citation 23102 is defined as involving "influence of alcohol or alcohol and drugs" by the State of California Vehicle Code, 1974.

Results and Discussion

Figures 5 and 6 show D.U.I. arrests for Experimental Time by month by Area A and B for January through June, 1975 and 1976. Figure 5 is the data for Area A and Figure 6 is for Area B. (Table C in Section VII shows the same data.)

Chi-squares performed on the data are shown in Table 5. Table 6 shows the total number of D.U.I. arrests summed across January through June for the baseline years and 1976. The chi-squares showed:

1. Area A in 1976 had significantly ($p < .01$) more D.U.I. arrests than in the baseline years.
2. Area B in 1976 had significantly ($p < .01$) more D.U.I. arrests than in the baseline years.

Conclusions

The data supports the hypothesis that D.U.I. arrests would increase over the baseline years.

V-20

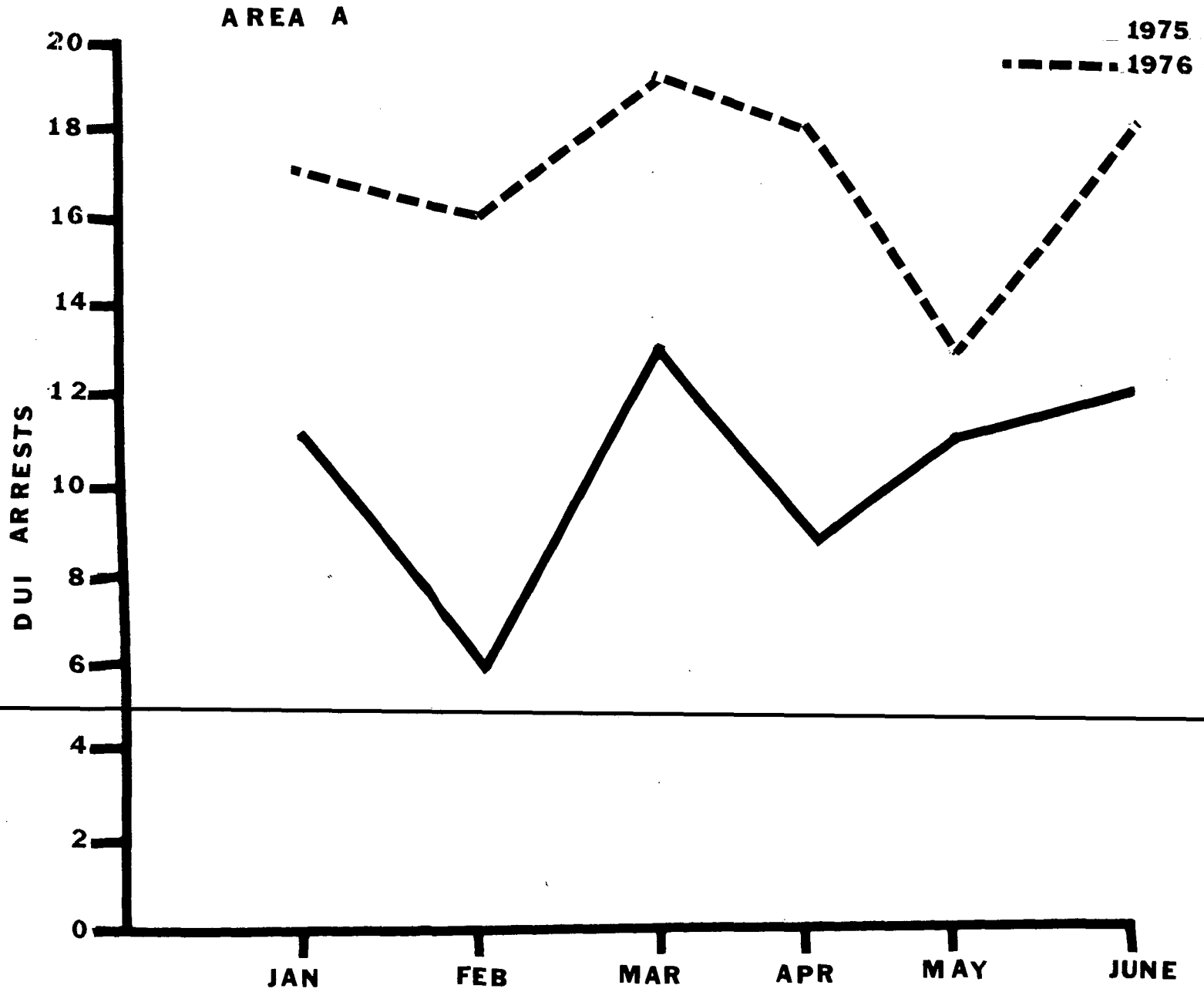


FIGURE 5 DUI ARRESTS DURING BASELINE AND JANUARY THROUGH JUNE 1976

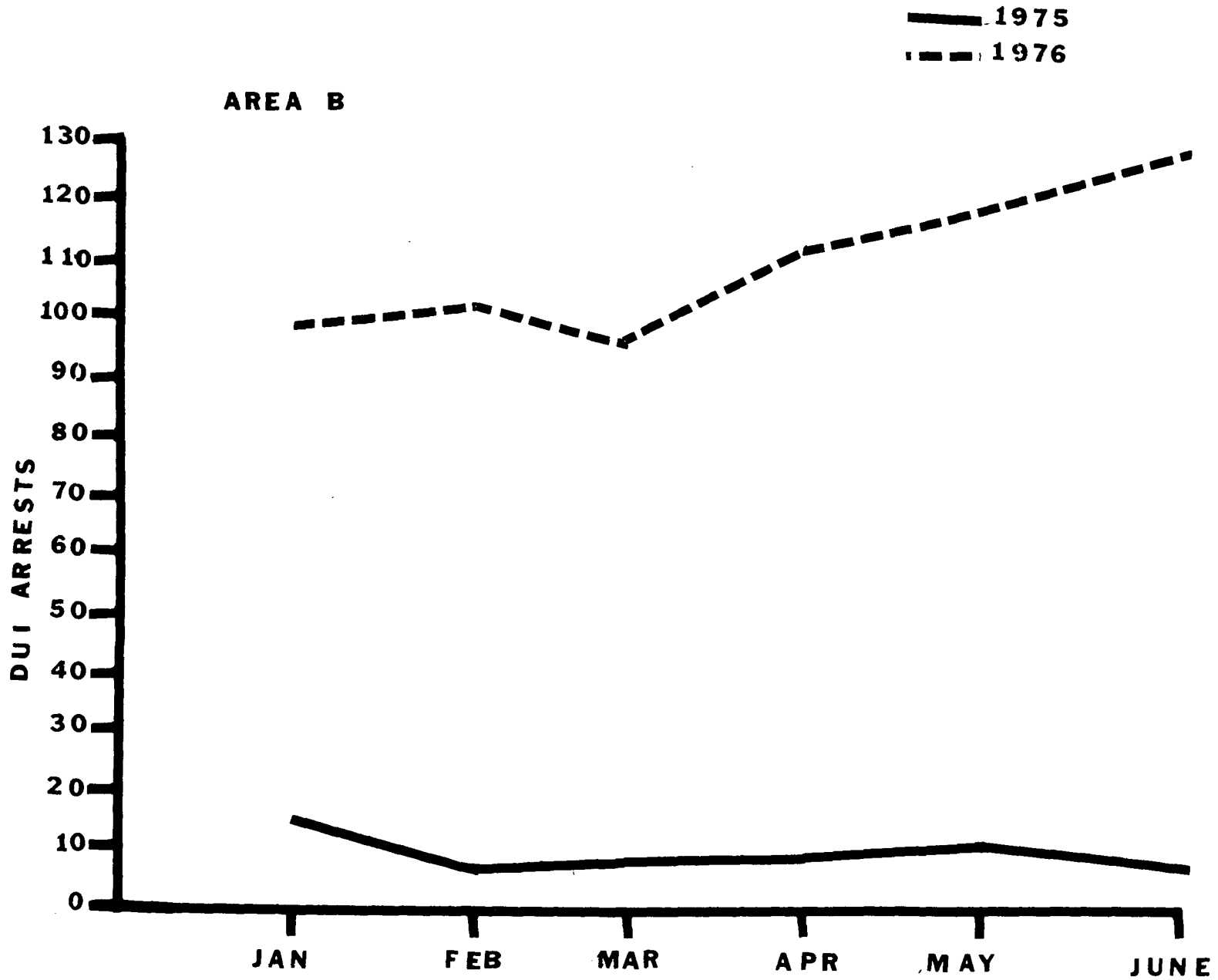


FIGURE 1 DUI ARRESTS DURING BASELINE AND JANUARY THROUGH JUNE 1976

TABLE 5

CHI-SQUARES FOR COMPARISONS OF D.U.I. ARRESTS OVER TIME

Experimental Time:	1976 vs. 1975 for A;	$\chi^2 = 9.33$	$p < .01$	1976 < 1975
	1976 vs. 1975 for B;	$\chi^2 = 118.04$	$p < .01$	1976 < 1975
	1976 vs. 1974 for A;	$\chi^2 = 25.35$	$p < .01$	1976 < 1974
	1976 vs. 1974 for B;	$\chi^2 = 497.11$	$p < .01$	1976 < 1974
	1976 vs. 1973 for A;	$\chi^2 = 246.02$	$p < .01$	1976 < 1973
	1976 vs. 1973 for B;	$\chi^2 = 459.58$	$p < .01$	1976 < 1973

TABLE 6

D.U.I. ARRESTS FOR JANUARY THROUGH JUNE

EXPERIMENTAL TIME

	<u>A</u>	<u>B</u>
1973	41	67
1974	64	149
1975	62	51
1976	101	646

TRAFFIC CITATIONS

Methodology

The traffic citation data covers a six-month period from January 1, 1976 through June 30, 1976. The data is analyzed according to years, months, areas, and Experimental Time. The data source is the City of Stockton's Traffic Record System.

Results and Discussion

The traffic citation data includes all traffic citations except those involving D.U.I. arrests.

Figures 7 and 8 show traffic citations for Experimental Time, month and by area for January through June, 1975 and 1976. Figure 7 shows the data for Area A and Figure 8 shows the data for Area B.

The analysis of the traffic citation data for January through June, 1976, involved combining the months during Experimental Time in each of the baseline years, 1973 through 1975, and comparing this data with the corresponding figures in 1976.

Chi-squares are presented in Table 7. Raw data are presented in Table 8. Table D in Section VII shows the same data. Chi-squares performed on the data indicated:

1. There was not a significant difference in traffic citations in Area A from 1975 to 1976.
2. All other comparisons were significant at the $p < .01$ level.

Conclusions

The data supported the hypothesis that traffic citations in the experimental area would increase over the baseline years.

V-24

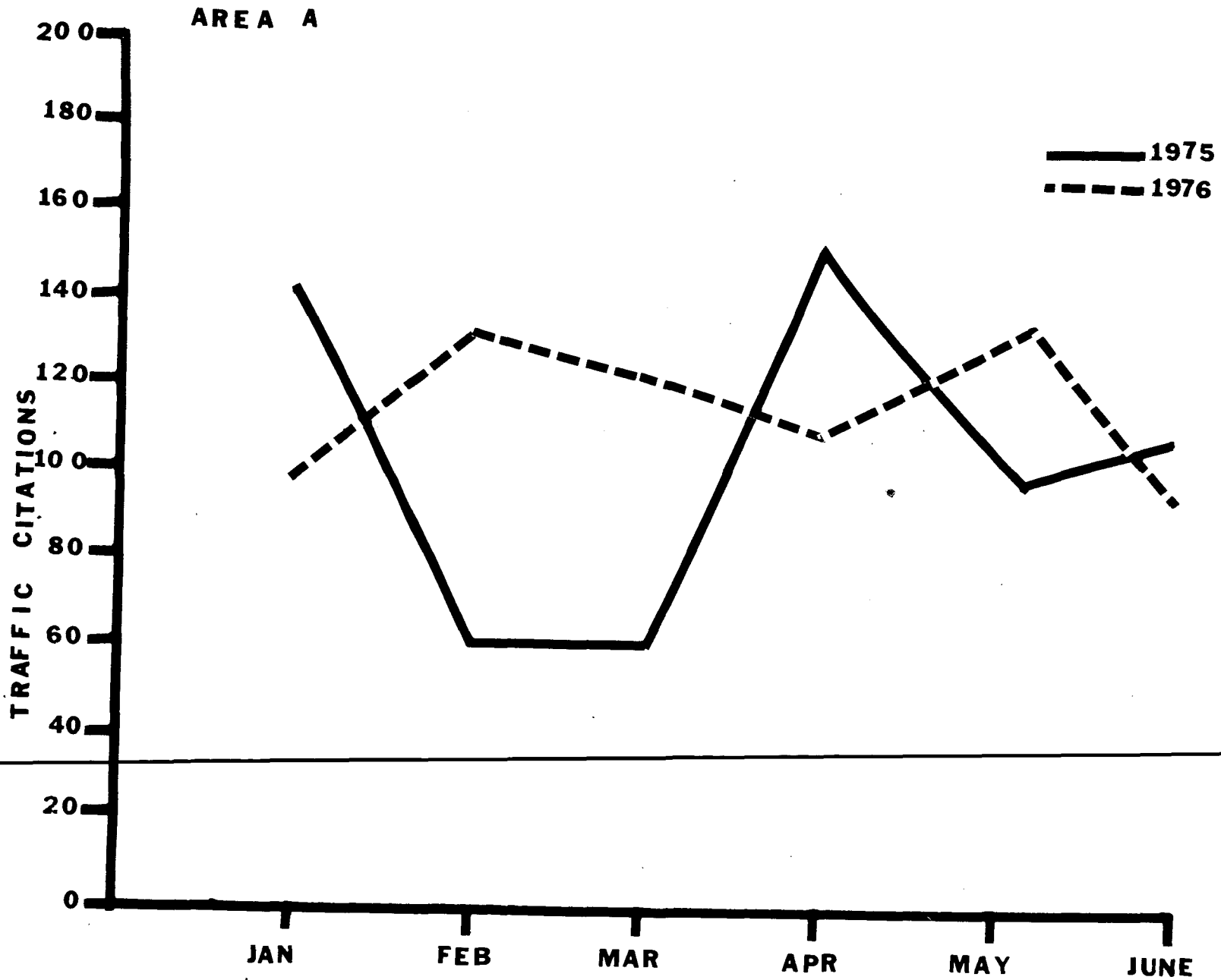


FIGURE 7 TRAFFIC CITATIONS DURING BASELINE AND JANUARY THROUGH JUNE 1976

V-25

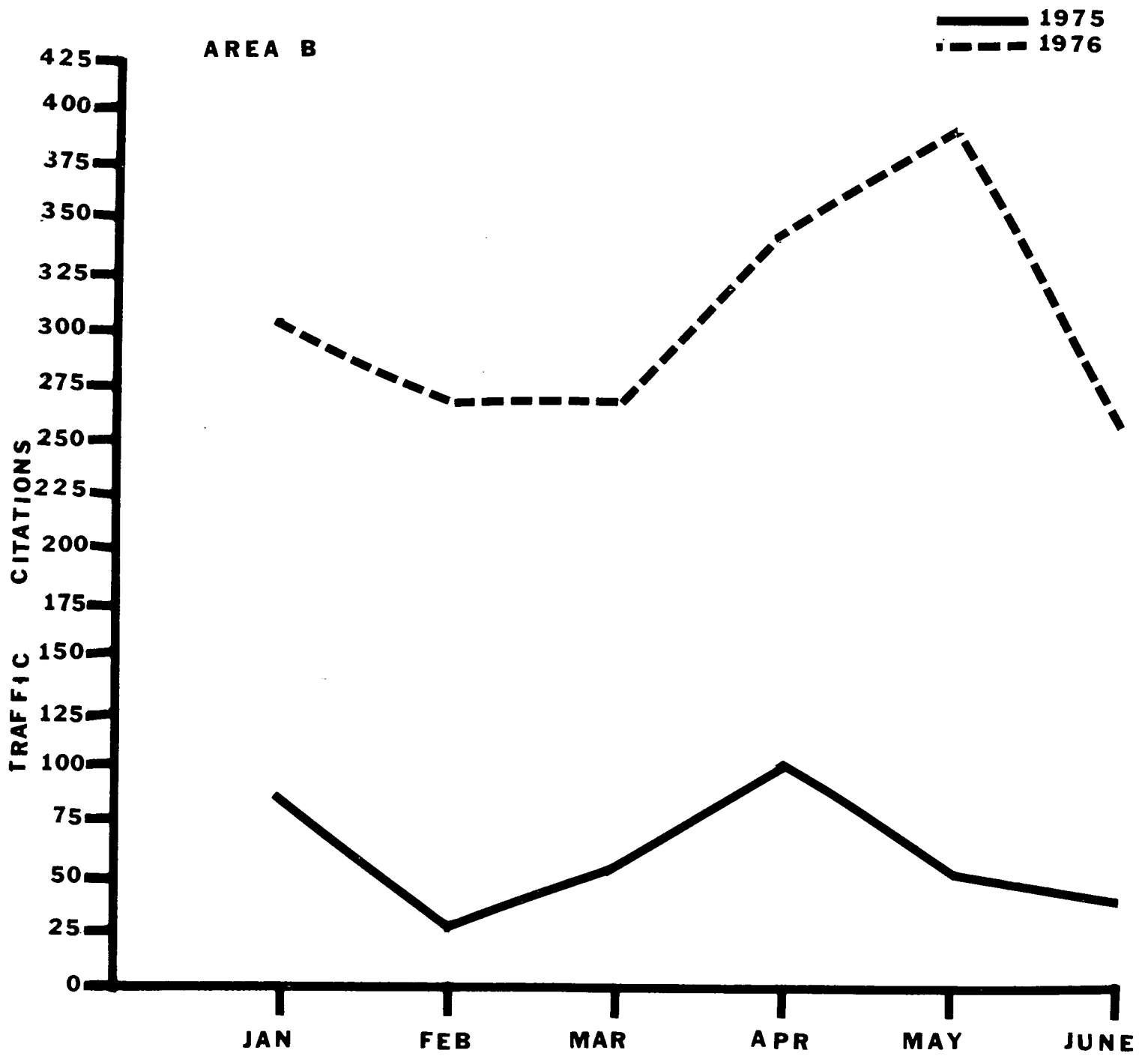


FIGURE 8 TRAFFIC CITATIONS BY MONTH BASELINE AND JANUARY THROUGH JUNE 1976

TABLE 7

CHI-SQUARES FOR COMPARISON OF TRAFFIC CITATIONS OVER TIME

Experimental Time:	1976 vs. 1975 for A; $\chi^2 =$	2.76	N.S.	
	1976 vs. 1975 for B; $\chi^2 =$	29.08	$p < .01$	1976 > 1975
	1976 vs. 1974 for A; $\chi^2 =$	98.27	$p < .01$	1976 > 1974
	1976 vs. 1974 for B; $\chi^2 =$	998.23	$p < .01$	1976 > 1974
	1976 vs. 1973 for A; $\chi^2 =$	907.02	$p < .01$	1976 > 1973
	1976 vs. 1973 for B; $\chi^2 =$	1,189.90	$p < .01$	1976 > 1973

TABLE 8

TRAFFIC CITATIONS FOR JANUARY THROUGH JUNE
EXPERIMENTAL TIME

<u>YEAR</u>	<u>A</u>	<u>B</u>
1973	361	269
1974	496	422
1975	621	369
1976	681	1,879

TTF PERFORMANCE VERSUS REGULAR PATROL

Methodology

Traffic citations and D.U.I. arrests made by the Regular Patrol during the Experimental Time period was compared to TTF performance for January through June 1976.

Results and Discussion

Table K in Section VII shows the data for Regular Patrol and TTF. The data shows that the Regular Patrol averaged .28 citations per man per hour city wide and .01 D.U.I. arrests per man per hour city wide. The TTF averaged .04 citations per man per hour in Area A and .48 in Area B. The average D.U.I. arrest for the TTF in Area A was .01 per man per hour and .14 in Area B.

The data suggest that the function of a TTF officer is different than Regular Patrol. The Regular Patrol makes far fewer field contacts in the course of an evening.

A comparison of the type of person being arrested for D.U.I. by the TTF, Regular Patrol and those with BACs above .10 at the roadside survey indicated that the profile of persons being stopped for D.U.I. is similar for all contacts. The complete study is located in Section VI.

DISTRIBUTION OF CRIMINAL ARRESTS FOR THE TRAFFIC TASK FORCE

Methodology

Criminal arrests made by the Traffic Task Force were collected for January through June 1976. Additionally, the amount in dollars of property recovered was compared to total property recovered during the Experimental Time period.

Results and Discussion

Table M in Section VII shows the types of criminal arrests made by the Traffic Task Force. The low rate of criminal arrests suggest a low probability of impact on crime rate. The Traffic Task Force is specifically trained in the detection and apprehension of intoxicated drivers. The TTF officer's focus of attention is concentrated on D.U.I. and traffic-related offenses rather than on the more surreptitious street crimes.

Table N in Section VII shows the amount of property recovered by Traffic Task Force. The total property recovered by Traffic Task Force was only \$2,100, a small percentage of the Regular Patrol contribution, \$36,222.

REGULAR PATROL VERSUS TTF FOR COST ANALYSIS

Methodology

Mileage, vehicle costs, and man hours worked were collected for TTF and the Regular Patrol during the Experimental Time for January through June, 1976. The data for the Regular Patrol was not comparable to TTF data due to the fact that the Regular Patrol data overlaps three separate shifts during the Experimental Time period.

Results and Discussion

Table L in Section VII shows man hours, mileage, and costs for the Regular Patrol and TTF. By dividing the mileage by hours worked, the data were analyzed for miles driven per hour. The Regular Patrol averaged 8.4 miles driven per hour and the TTF averaged 8.9 miles driven per hour.

The cost figures reflect a 24 cent per mile cost for both the Regular Patrol and TTF. These costs remained relatively constant over the six-month operational period.

Based upon the data, the TTF costs are comparable to those of the Regular Patrol and thus do not reflect a significant increase in vehicle costs per man hour to the Police Department.

The cost per D.U.I. arrest for the TTF was composed over vehicle costs per mileage, cost per man hour, and cost per superior hour. The cost per D.U.I. is \$98.18. Table M in Section VII shows the actual cost figures.

STREET CRIME

Methodology

The street crime information was obtained from the Data Processing branch of City Hall for January through June 1976. The crime categories of interest are as follows:

TITLE	DESCRIPTIVE CONTENT
Robbery	Robbery by firearm, knife, or strong-arm
Burglary	By residence, or other structure
Assault	By gun, knife, or other weapon
Theft from Person	Property taken from person
Auto Theft	Autos, trucks, buses, and other vehicles

Three areas have been designated for each crime type. Area A is the initial control area, Area B_x is the area of concentration of initial TTF enforcement, and Area B-B_x is the remainder of the experimental Area B. The crime data has been broken down by type, by area, by Experimental Time.

Results and Discussion

Table 9 shows the chi-square values for the street crime analysis. Table 10 shows the total number of crimes for January through June 1975 versus 1976.

The analysis of street crime for January through June 1976 involved combining the six months across the baseline year, 1975, for each specific crime and arrest and then comparing this data with the corresponding figures for the year 1976. Chi-squares performed on the street crime data showed:

1. Area B in 1976 had significantly ($p < .05$) more robberies, burglaries and auto thefts than Area A in 1976.
2. Area B in 1975 had significantly ($p < .05$) more assaults than Area A in 1975.
3. All other comparisons were not significant.

Conclusions

The data did not show a significant decrease in Area B as had been hypothesized. The Traffic Task Force does not appear to impact street crime.

TABLE 9

CHI-SQUARES FOR COMPARISON OF STREET CRIMES OVER TIME

ROBBERY	1975 A	vs. 1976 A;	$\chi^2 = 1.2$	N.S.	
	1975 B _x	vs. 1976 B _x ;	$\chi^2 = 1.5$	N.S.	
	1975 B-B _x	vs. 1976 B-B _x ;	$\chi^2 = .81$	N.S.	
	1975 A	vs. 1975 B;	$\chi^2 = 2.94$	N.S.	
	1976 A	vs. 1976 B;	$\chi^2 = 4.41$	p < .05	(B > A)
BURGLARY	1975 A	vs. 1976 A;	$\chi^2 = .22$	N.S.	
	1975 B _x	vs. 1976 B _x ;	$\chi^2 = 3.35$	N.S.	
	1975 B-B _x	vs. 1976 B-B _x ;	$\chi^2 = 1.92$	N.S.	
	1975 A	vs. 1975 B;	$\chi^2 = 1.47$	N.S.	
	1976 A	vs. 1976 B;	$\chi^2 = 9.05$	p < .01	(B > A)
ASSAULT	1975 A	vs. 1976 A;	$\chi^2 = .98$	N.S.	
	1975 B _x	vs. 1976 B _x ;	$\chi^2 = .74$	N.S.	
	1975 B-B _x	vs. 1976 B-B _x ;	$\chi^2 = .76$	N.S.	
	1975 A	vs. 1975 B;	$\chi^2 = 5.87$	p < .05	(B > A)
	1976 A	vs. 1976 B;	$\chi^2 = 1.38$	N.S.	
AUTO THEFT	1975 A	vs. 1976 A;	$\chi^2 = .09$	N.S.	
	1975 B _x	vs. 1976 B _x ;	$\chi^2 = .42$	N.S.	
	1975 B-B _x	vs. 1976 B-B _x ;	$\chi^2 = .02$	N.S.	
	1975 A	vs. 1975 B;	$\chi^2 = 1.81$	N.S.	
	1976 A	vs. 1976 B;	$\chi^2 = 4.41$	p < .05	(B > A)
THEFT FROM PERSON	1975 A	vs. 1976 A;	$\chi^2 = .07$	N.S.	
	1975 B _x	vs. 1976 B _x ;	$\chi^2 = .12$	N.S.	
	1975 B-B _x	vs. 1976 B-B _x ;	$\chi^2 = .67$	N.S.	
	1975 A	vs. 1975 B;	$\chi^2 = 3.60$	N.S.	
	1976 A	vs. 1976 B;	$\chi^2 = 0$	N.S.	

TABLE 10
STREET CRIMES FOR JANUARY THROUGH JUNE

		<u>A</u>	<u>B_x</u>	<u>B-B_x</u>	<u>B</u>
<u>ROBBERY</u>	1975	12	9	13	22
	1976	18	15	18	33
<u>BURGLARY</u>	1975	87	74	21	95
	1976	85	98	31	129
<u>ASSAULT</u>	1975	37	47	14	61
	1976	46	39	19	58
<u>AUTO THEFT</u>	1975	47	40	21	61
	1976	44	46	20	66
<u>THEFT FROM PERSON</u>	1975	8	0	2	2
	1976	7	3	4	7

STREET CRIME ARRESTS

Methodology

Baseline street crime arrest information was obtained from the same source as street crime information for January through June 1976. The crime categories of interest are as follows:

Robbery	Robbery by firearm, knife or strong-arm
Burglary	By residence, or other structure
Assault	By gun, knife, or other weapon
Theft from Person	Property taken from person
Auto Theft	Autos, trucks, buses, or other vehicles

Three crime areas have been designated for each crime and correspond to those areas described under the street crime data.

Results and Discussion

The street crime arrest data was not analyzed due to a very small number of occurrences. Table 11 shows the street crime arrests combined across January through June 1975 and 1976.

Conclusions

The Traffic Task Force does not appear to impact street crime arrests.

TABLE 11
STREET CRIME ARRESTS FOR JANUARY - JUNE

		<u>A</u>	<u>B_x</u>	<u>B-B_x</u>	<u>B</u>
Robbery	1975	0	2	5	7
	1976	2	0	0	0
Burglary	1975	10	8	9	17
	1976	4	4	3	7
Assault	1975	14	10	17	27
	1976	11	15	10	25
Auto Theft	1975	2	1	0	1
	1976	0	2	0	2
Theft from Person	1975	0	0	0	0
	1976	0	0	0	0

ROADSIDE SURVEY BLOOD ALCOHOL CONCENTRATION

Methodology

The BAC data covers the roadside surveys conducted from January 1976 through June 1976. The data is analyzed according to mean BACs for both Area A and Area B. The BAC means are derived from approximately 100 BACs per survey night, half of which were obtained in Area A and the remaining half in Area B.

Results and Discussion

During baseline, the mean BAC for Area A was .031 and Area B was .033, indicating no significant difference between areas. During the first six months of 1976, mean BAC in Area A was .028 and in Area B was .031. Based upon the baseline data, a 95 percent confidence interval was set between .0298 and .0344. Area B (the experimental area) during January through June 1976 fell within this confidence level. The reduction in the mean BAC was not, therefore, significant. The mean BAC in Area A (the control area) did exceed the confidence intervals. This may be due to the overall decrease in collisions and D.U.I. collisions in Area A during January through June 1976.

Figure 9 shows the mean BACs for January through June 1976. Table E in Section VII shows the actual mean BACs for both Area A and Area B.

Conclusions

The TTF does not appear to have any impact on BAC levels of randomly surveyed drivers.

Additional Study

An analysis of BAC levels obtained at the roadside surveys for six high socioeconomic (SES) sites and six low socioeconomic sites showed a significant increase in the frequency of .000-.019 ranges for the high SES areas when compared to the baseline period. The complete study is located in Section VI.

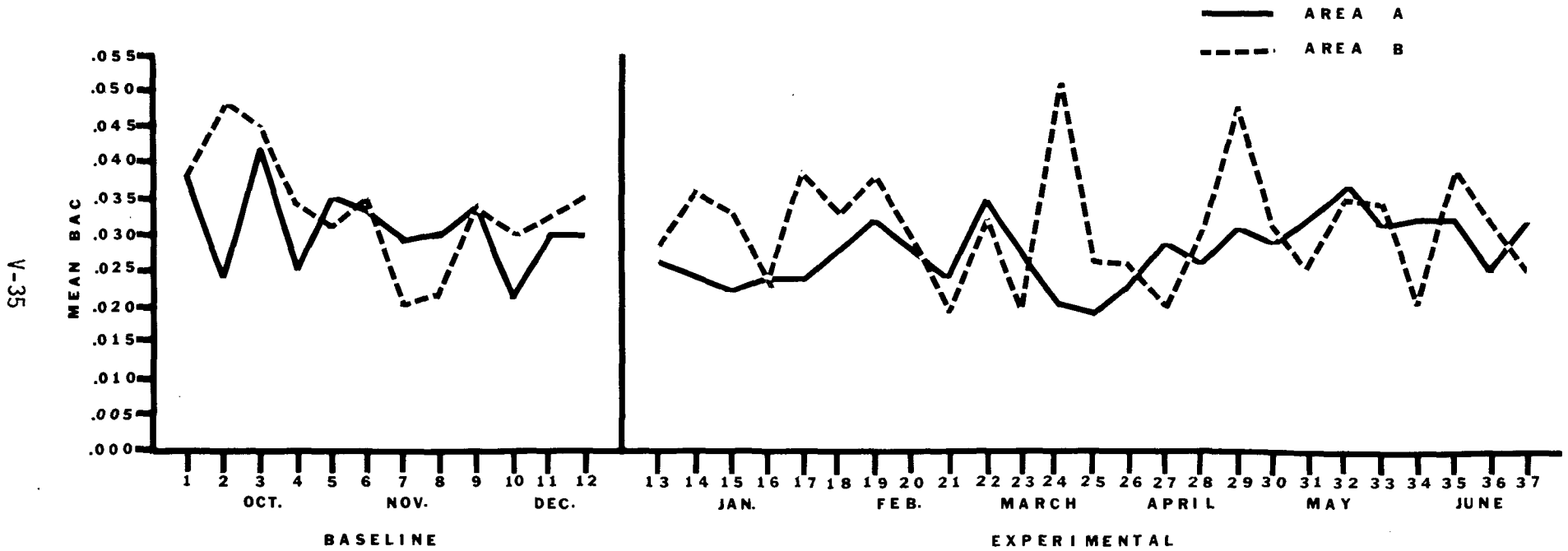


FIGURE 9 MEAN BAC TUNING BASELINE AND EXPERIMENTAL THROUGH JUNE 1977

SUPPLEMENTAL INFORMATION

SECTION VI

The following section consists of additional studies the evaluators felt would clarify some of the discrepancies occurring within the major evaluation measures. They will be presented in the following order:

1. Roadside Survey Summary
2. Traffic Flow Averages
3. Parking Lot Counts
4. Analysis of Changes in Collision Patterns
5. Comparison of Changes in Traffic Flow
6. Profile of D.U.I. Arrests and Roadside Survey D.U.I. Participants
7. Percent of D.U.I.s at Roadside Surveys
8. A Comparison of BAC Levels in High and Low Socioeconomic Levels

ROADSIDE SURVEY SUMMARY

Roadside surveys were conducted during the Experimental Time period on either Friday or Saturday nights to determine the parameters of the driving population of Stockton during those hours. The results of the baseline and operational period surveys were similar with the exception of the question concerning the number of participants with knowledge of the roadside surveys. During the baseline period, 42 percent had heard of the survey while during the operational period, 62 percent had heard of the survey. The roadside survey appears to be an effective device with which to determine the characteristics of the driving population of Stockton during Experimental Time.

Methodology

The roadside surveys have been conducted on either Friday or Saturday nights from 8 p.m. to 4 a.m. since October 1975. The four-person interviewing team interviews an average of 120 citizens of Stockton per night. The interviewers use a 54-question survey. All surveys are conducted on a voluntary basis. An example of the questionnaire is in Section VII.

Results and Discussion

The results of the baseline roadside surveys (October through December 1975) are presented in Table VI-1. Table VI-2 shows the January through June 1976 data. A summary of the data showed that most people are coming from a friend's home and going to their own home. The average profile of drivers stopped was male, age 20 to 29, and white, with one passenger. During the baseline period, 42 percent of the participants had heard of the survey. During the operational period, the number of participants that had heard of the survey rose to 62 percent. During the baseline period, the participants were not asked how they felt about the increased D.U.I. enforcement. During the operational period, 60 percent of the participants indicated they favored the increased enforcement.

Conclusions

The results suggest that the roadside survey was an effective means of gaining knowledge about the driving population of the City of Stockton during Experimental Time.

TABLE VI-1

BASELINE ROADSIDE SURVEY SUMMARY

October - December, 1975

	<u>A</u>	<u>B</u>	<u>City Wide</u>
Cars Stopped	655	630	1,285
Participants	607	567	1,174
Average BAC	.031	.035	.033
.10's	56	51	107

<u>TIME</u>	<u>AVERAGE BAC</u>	<u>PARTICIPANTS</u>	<u>.10s</u>
2000	.023	206	8
2100	.026	226	12
2200	.033	59	8
2300	.027	228	12
0000	.030	171	13
0100	.073	35	6
0200	.047	170	28
0300	.054	79	20

BAC BY LOCATIONS

		<u>.000-.019</u>	<u>.020-.049</u>	<u>.050-.099</u>	<u>.100-.500</u>
El Dorado and Delhi	A	45	7	2	5
Charter and Turnpike	A	4	3	2	6
Charter and Sutter	A	23	2	9	2
San Joaquin and Charter	A	22	3	2	3
Center and Lafayette	A	25	7	3	3
Center and Oak	A	22	12	9	8
El Dorado and Harding	A	29	8	2	5
Madison and Harding	A	11	5	1	4
Pacific and Alpine	A	35	12	6	4
Thornton and Hammer	A	42	9	3	3
Pershing and Magnolia	A	43	4	1	5
Swain and Pacific	A	39	9	8	4
Robinhood and Stratford	A	36	9	1	1
El Dorado and Lafayette	A	26	3	8	3
Weber and San Joaquin	B	25	2	6	4
Market and California	B	28	3	4	3
Main and California	B	23	11	8	7
Hammer and El Dorado	B	18	0	10	4
Airport and Clay	B	41	9	5	1
Airport and Hazelton	B	36	2	5	5
Airport and Main	B	10	5	0	1
Charter and Airport	B	8	6	4	3
Wilson and Main	B	8	1	1	4
Wilson and Market	B	11	6	10	7

BAC BY LOCATIONS (Continued)

		<u>.000-.019</u>	<u>.020-.049</u>	<u>.050-.099</u>	<u>.100-.500</u>
Miner and Wilson	B	30	5	2	3
Miner and Airport	B	27	6	4	2
Harding and Wilson	B	22	6	0	3
West Lane and Harding	B	39	12	6	4
California and Harding	B	30	4	6	0

BAC BY COMING FROM

	<u>.000-.019</u>	<u>.020-.049</u>	<u>.050-.099</u>	<u>.100-.500</u>
Out of County	48	9	11	2
Home	107	27	19	8
Friends	116	30	18	33
Work	83	16	8	6
Store	26	3	2	2
Restaurant	39	19	11	9
Hospital	7	0	1	0
Bar	9	9	6	11
Sport	68	7	5	2
Other	242	54	45	30
Missing	12	6	2	4

BAC BY GOING TO

Out of County	24	8	4	3
Home	416	93	57	66
Friends	88	18	21	13
Work	31	6	2	0
Store	19	2	2	0
Restaurant	54	10	14	6
Bar	23	4	8	8
Hospital	4	1	0	0
Sport	30	8	6	2
Other	57	25	8	7
Missing	12	5	6	3

BAC BY AGE

0 - 14	0	0	0	1
15 - 19	156	28	15	9
20 - 29	279	78	48	36
30 - 39	130	33	30	25
40 - 49	92	17	23	21
50 - 59	66	17	7	12
60 - 69	26	5	5	2
70 - 79	4	0	0	1
Missing	5	2	0	1

	<u>.000-.019</u>	<u>.020-.049</u>	<u>.050-.099</u>	<u>.100-.500</u>
<u>BAC BY AREA</u>				
Area A	401	93	57	56
Area B	357	87	71	52
<u>BAC BY HEARD OF SURVEY</u>				
Yes	203	59	34	45
No	555	121	94	63
<u>BAC BY SEX</u>				
Male	550	148	104	96
Female	208	32	24	12
<u>BAC BY ETHNIC</u>				
Black	103	23	27	17
White	441	104	69	46
Mexican-American	125	28	22	26
Oriental	33	4	0	0
Filipino	3	2	0	1
Other	6	3	1	4
Missing	47	11	9	14
<u>BAC BY PASSENGERS</u>				
0	14	3	1	7
1	266	58	49	43
2	95	23	19	14
3	42	12	7	4
4	14	3	2	0
5	6	2	0	1
6	5	0	1	0
7	1	0	0	0
8	1	0	0	0
10	0	0	0	1
11	0	0	0	1
Children	13	1	0	0
Missing	301	78	49	37

INFORMATION SOURCE

Radio	19
T.V.	29
Newspaper	166
Speech	34
Friend	58
Other	38

PREVIOUS SURVEY

Yes	12
No	1,273
With Card	5
Without Card	7

DO YOU KNOW OF ANYONE ARRESTED FOR DUI?

Yes	362
No	923
Month	70
Year	170
Other	122

TABLE VI-2

ROADSIDE SURVEY SUMMARY

Experimental Time - January - June, 1976

	<u>A</u>	<u>A</u>	<u>City Wide</u>
Cars Stopped	1,574	1,383	2,957
Participants	1,375	1,237	2,612
Average BAC	.028	.031	.030
.10s	83	95	178

<u>TIME</u>	<u>AVERAGE BAC</u>	<u>PARTICIPANTS</u>	<u>.10s</u>
2000	.022	480	17
2100	.024	494	21
2300	.025	491	23
0000	.027	486	24
0100	.015	2	
0200	.047	410	62
0300	.042	249	31

BAC BY LOCATIONS

		<u>.000-.019</u>	<u>.020-.049</u>	<u>.050-.099</u>	<u>.100-.500</u>
El Dorado and Delhi	A	88	16	8	6
Charter and Turnpike	A	37	7	4	5
Charter and Sutter	A	72	8	7	4
San Joaquin and Charter	A	30	5	4	1
Center and Lafayette	A	57	16	16	10
Center and Oak	A	58	16	16	8
El Dorado and Harding	A	79	18	11	4
Madison and Harding	A	68	14	8	9
Pacific and Alpine	A	91	13	12	10
Swain and Pacific	A	77	13	16	10
Thornton and Hammer	A	77	15	7	0
Pershing and Magnolia	A	118	10	7	2
Robinhood and Stratford	A	61	13	5	2
El Dorado and Lafayette	A	55	13	18	12
Weber and San Joaquin	B	62	12	7	3
Market and California	B	40	11	16	11
Main and California	B	69	18	13	10
Hammer and El Dorado	B	47	5	11	1
Airport and Clay	B	70	15	8	8
Airport and Hazelton	B	57	10	5	8
Airport and Main	B	45	4	11	3
Charter and Airport	B	19	5	8	3
Wilson and Main	B	45	11	13	7
Wilson and Market	B	73	15	13	14
Miner and Wilson	B	47	9	8	8
Miner and Airport	B	62	10	7	3
Harding and Wilson	B	69	16	10	8
West Lane and Harding	B	79	16	21	5
California and Harding	B	50	7	1	3

BAC BY COMING FROM

	<u>.000-.019</u>	<u>.020-.049</u>	<u>.050-.099</u>	<u>.100-.500</u>
Out of County	57	7	12	4
Home	435	72	47	33
Friends	377	91	86	49
Work	265	37	31	7
Store	86	9	3	6
Restaurant	196	43	47	28
Hospital	25	0	1	1
Bar	33	31	35	24
Sport	151	22	10	9
Other	177	29	19	17

BAC BY GOING TO

Out of County	13	4	2	2
Home	1,117	199	191	106
Friends	220	39	28	28
Work	66	11	2	2
Store	41	12	7	2
Restaurant	84	21	28	15
Hospital	5	0	0	1
Bar	37	19	8	5
Sport	68	7	14	7
Other	151	29	11	10
Missing	8	0	1	0

BAC BY AGE

15 - 19	373	51	27	24
20 - 29	670	161	133	70
30 - 39	300	69	63	35
40 - 49	220	20	37	33
50 - 59	153	28	21	12
60 - 69	64	11	7	3
70 - 79	13	0	2	1
80 - 89	1	1	0	0

BAC BY ATTITUDE OF TTF

Very Positive	1,276	212	171	105
Slightly Positive	414	88	80	44
Slightly Negative	65	21	24	14
Very Negative	35	17	14	11

BAC BY AREA

Area A	973	180	139	83
Area B	829	161	152	95

BAC BY HEARD OF SURVEY

	<u>.000-.019</u>	<u>.020-.049</u>	<u>.050-.099</u>	<u>.100-.500</u>
Yes	953	177	179	110
No	849	164	112	68

BAC BY SEX

Male	1,296	270	252	155
Female	506	70	39	23
Missing	0	1	0	0

BAC BY ETHNIC

Black	261	51	43	35
White	1,118	202	178	89
Mexican-American	295	77	56	47
Oriental	79	3	4	1
Filipino	15	2	0	1
Other	8	0	1	0
Missing	26	6	8	5

BAC BY PASSENGERS

0	11	3	7	4
1	590	134	101	62
2	154	32	27	19
3	72	17	20	11
4	19	5	2	2
5	6	0	1	0
6	1	0	0	0
9	3	0	0	0
10	1	0	0	0
Children	203	34	23	10
Missing	748	116	10	70

INFORMATION SOURCE

Radio	66
TV	132
Newspaper	603
Speech	4
Bulletin Board	13
Friend	245
Other	349
Missing	1,545

PREVIOUS SURVEY

Yes	156
No	2,683
With Card	44
Without Card	112
Missing	118

DO YOU KNOW OF ANYONE ARRESTED FOR DUI?

Yes	1,178
No	1,537
Month	254
Year	462
Other	462

TRAFFIC FLOW AVERAGES

To assess the effects of the Traffic Task Force on the traffic flow pattern in the City of Stockton, the Traffic Engineer began taking traffic flow counts on a bi-monthly basis at roadside survey sites in Area A and Area B during October 1975. The counts showed an increase in traffic flow from baseline (October through December 1975) to the operational period (January through June 1976) of 28 cars per hour per site. This increase is not statistically significant.

Methodology

The City of Stockton's Traffic Engineer began taking traffic flow counts at specified roadside survey sites during October 1975. These counts will be continued on a bi-monthly basis for the duration of the contract period in order to assess changes in traffic flow during the Experimental Time period on Friday and Saturday nights. The counts include 13 sites in Area A and 16 sites in Area B.

Results and Discussion

During the baseline period, October through December 1975, there was an average of 206 cars per hour per site in Area A and 151 cars per hour per site in Area B. The first six months of operation showed that Area A averaged 223 cars per hour per site and Area B 162 cars per hour per site. These figures reflect an overall increase of only 28 cars per hour on the average which is not a significant change.

Table VI-3 shows the actual averages for each site during baseline and the first six months of operation. (Sites with no average were not measured during the relevant time period.)

Conclusion

The data indicate that the presence of the Traffic Task Force and the Roadside Survey has not altered the traffic flow pattern in the City of Stockton during Experimental Time.

TABLE VI-3
TRAFFIC FLOW AVERAGES

STREETS	OCTOBER THROUGH DECEMBER	JANUARY THROUGH JUNE
<u>Area A</u>		
Charter and San Joaquin	28	31.3
El Dorado and Delhi	117	134
Charter and Turnpike	253	279
Charter and California	291	423
Center and Oak	344	308
El Dorado and Lafayette	290	300.6
El Dorado and Harding	254	281.6
Center and Lafayette	362	394
Swain and Pacific	106	93.6
Thornton and Hammer	114	115.3
Pacific and Alpine	321	348
Pershing and Magnolia	110	107.6
Robinhood and Stratford	89	91.3
<u>Area B</u>		
Main and California	121.5	154.7
Weber and San Joaquin	104.5	92.3
Charter and Fairgrounds	296	374.5
Airport and Clay	95	106.5
Airport and Hazelton	102	114
Market and American	145	
Wilson and Main	174	184.3
Wilson and Market	158	177
Miner and Airport	61	96.6

TRAFFIC FLOW AVERAGES (Continued)

<u>STREETS</u>	<u>OCTOBER THROUGH</u>	<u>JANUARY THROUGH</u>
<u>Area B</u>	<u>DECEMBER</u>	<u>JUNE</u>
Miner and Wilson	105	101.3
Hammer and El Dorado	265	250.3
Harding and Wilson	264	289
Harding and California	76	88.6
Harding and West Lane		170.3
Airport and Main		109
Market and California		128

PARKING LOT COUNTS

To determine if the Traffic Task Force has had an impact on bar and/or liquor store patronage, ten parking lot counts at specified sites in Area A and ten in Area B have been taken since October 1975. There appears to be a slight decrease in patronage, but it is not statistically significant.

Methodology

Twenty bars and/or liquor stores having discrete parking lots have been observed since October, 1975, to determine what impact, if any, the Traffic Task Force has had on patronage. There have been ten parking lot counts in each area during the Experimental Time period.

Results and Discussion

A comparison of the baseline parking lot averages with the averages obtained during January through June 1976 indicates no observable change in bar and/or liquor store patronage as a result of the Traffic Task Force. Table VI-4 shows the averages for the parking lot counts for January through June, 1976.

Conclusion

There appears to be a slight decrease in patronage, but it is not statistically significant. The evaluators would like to suggest that if there continues to be no significant change in patronage during the next six months of operations, that it would not be financially worthwhile to continue taking counts for the duration of the contract.

TABLE VI-4

SUMMARY OF PARKING LOT COUNTS - JANUARY THROUGH JUNE 1976

<u>LOCATION</u>	<u>JANUARY</u>	<u>FEBRUARY</u>	<u>MARCH</u>	<u>APRIL</u>	<u>MAY</u>	<u>JUNE</u>
AREA A						
Allocation	23.2	25.0	11.0	closed	13.0	14.0
Montclair	3.0	4.2	7.5	21.0	3.0	6.0
Graduate	20.6	21.0	21.0	24.0	21.0	21.0
276 Club	5.2	30.0	33.5	44.0	43.0	26.0
Mellis	2.6	4.2	3.2	3.0	3.0	3.0
Herbst	3.2	3.0	3.5	2.8	4.0	5.0
Simoni's	4.4	3.2	2.2	7.0	3.0	3.0
Arroyo	17.6	18.7	23.5	26.0	24.0	25.0
Mi Ranchito	5.0	2.5	6.2	6.0	7.0	2.0
Castaway	7.2	7.0	12.0	13.0	14.0	6.0
AREA B						
Maria's	2.7	3.5	2.2	3.2	4.0	3.0
Harold's	6.0	5.5	4.3	4.0	8.0	6.0
The Palm	3.8	4.0	5.5	4.5	1.0	3.0
Tony G's	8.5	11.0	9.5	6.5	10.0	9.0
Fremont Club	2.6	4.0	2.5	2.8	2.6	4.0
Rippey's	4.6	2.5	3.0	2.5	6.0	4.0
Mayfair	3.4	3.0	3.7	4.0	4.0	3.0
West Lane	4.0	2.5	4.0	2.0	3.0	5.0
Red's	1.5	1.0	2.0	closed	0.0	closed
Brickworks	7.4	9.0	8.2	12.0	18.0	14.0
Average Over Months by Area						
Area A	9.2	11.2	12.4	13.0	13.5	11.1
Area B	4.4	4.5	4.5	4.2	5.6	5.67
Average Over Months by Area During Baseline						
	October		November		December	
Area A	16.7		15.9		15.5	
Area B	5.8		6.6		6.5	

ANALYSIS OF CHANGES IN COLLISION PATTERNS FROM 1975 TO 1976

A collision location analysis of the City of Stockton was performed for the period of January 1, 1976 through June 31, 1976 and comparable time periods in 1975 to determine if the decrease in collisions in Area A was the result of an overall collision pattern shift from one section of the city to another. The analysis revealed that five zoning sections in the city showed significant ($p < .05$) reductions in collisions from 1975 to 1976. These reductions were not specific to either Area A or Area B.

Methodology

The specific locations for all collisions occurring in the City of Stockton during January through June 1976 were compared to comparable collision locations during January through June 1975. The specific locations were obtained from the Statewide Integrated Traffic Records System quarterly reports. The locations were then plotted on City of Stockton zoning maps to determine what, if any, patterns occurred during the three time periods.

Results

Chi-square analysis of the changes in collisions between 1975 and 1976 for each zoning area showed five zoning areas to have significant reductions in collisions. Two of the zoning areas were in Area A and three were in Area B. AREA A - Zoning Area 7 showed Daytime collision to be significantly down ($p < .05$) from 1975. The collisions in Experimental Time were also significantly down ($p < .01$).

Zoning Area 1 showed only collisions occurring in Control Time to be significantly down ($p < .01$) from 1975 to 1976. AREA B - Zoning Area 2 showed only collisions occurring in the Experimental Time period to be significantly down ($p < .05$) from 1975 to 1976.

Zoning Area 8 showed Daytime collisions to be significantly up ($p < .01$) from 1975 to 1976.

Zoning Area 11 also showed Daytime collisions to be significantly up ($p < .01$) from 1975 to 1976.

Table VI-5 to VI-7 show the proportion of change in collision patterns from 1975 to 1976. Figures VI-1 to VI-3 shows the proportion of change for each time period.

Conclusion

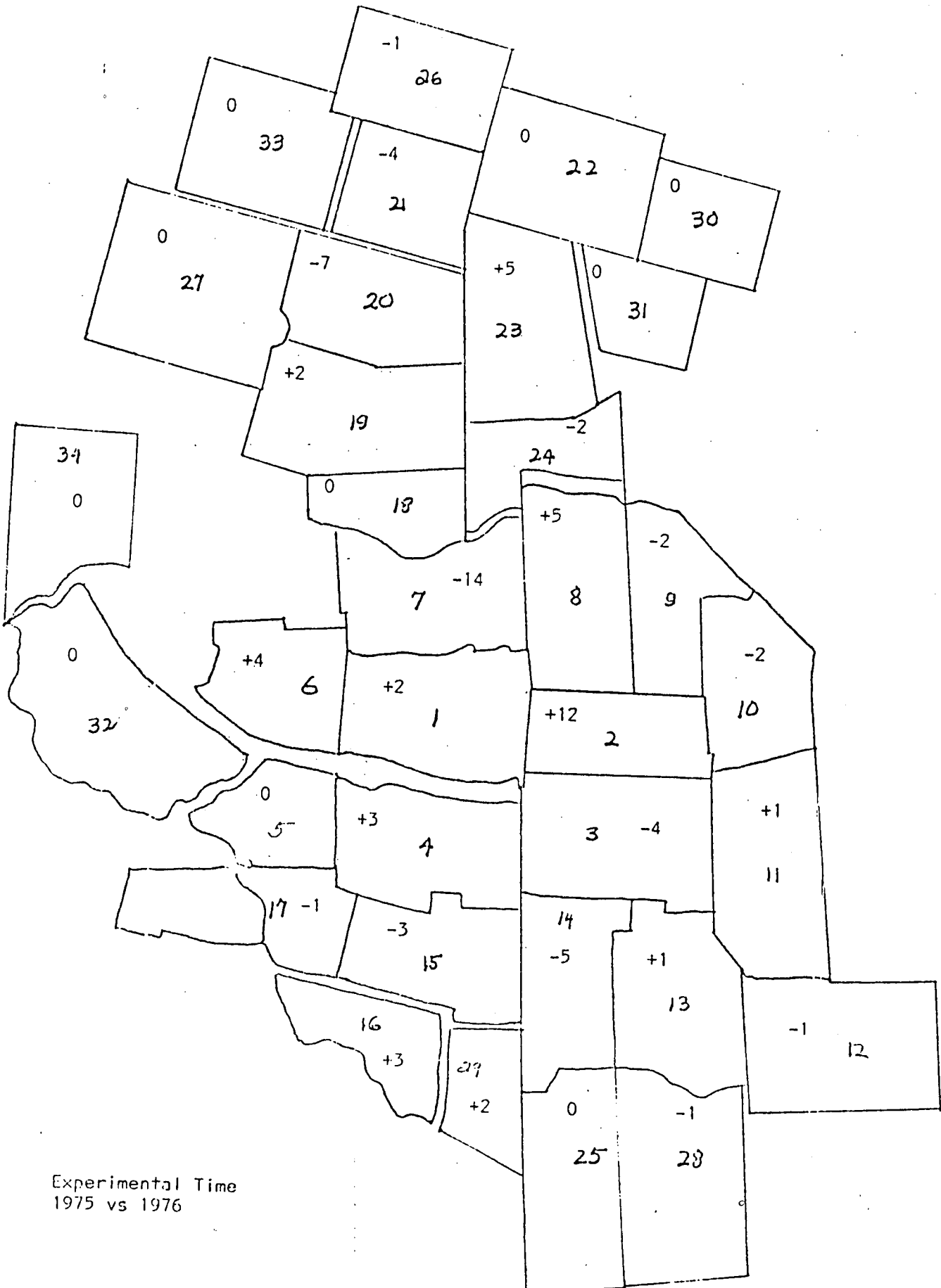
The shift in collision patterns are not specific to Area A or B.

TABLE VI-5
 CHANGES IN COLLISION PATTERNS FROM 1975 to 1976
 BY ZONING AREAS - EXPERIMENTAL TIME

<u>AREA</u>	<u>1975</u>	<u>1976</u>	<u>CHANGE</u>	<u>x²</u>	
1	14	16	+	.13	
2	22	10	-	4.5	p < .05
3	33	29	-	.26	
4	9	6	-	.6	
5	0	0	0	0	
6	2	6	+	2	
7	19	5	-	8.17	p < .01
8	13	8	-	1.19	
9	2	0	-	2	
10	0	2	+	2	
11	7	6	-	.08	
12	1	0	-	1	
13	4	5	+	.11	
14	16	11	-	.93	
15	10	7	-	.53	
16	4	1	-	1.8	
17	1	0	-	1	
18	4	4	0	0	
19	2	4	+	.67	
20	11	4	-	3.27	
21	1	5	+	2.67	
22	5	5	0	0	
23	18	13	-	.81	
24	6	4	-	.4	
25	0	0	0	0	
26	1	0	-	1	
27	2	2	0	0	
28	0	1	+	1	
29	2	0	-	2	
30	0	0	0	0	
31	0	0	0	0	
32	0	0	0	0	
33	0	0	0	0	
34	0	0	0	0	

FIGURE VI-1

CITY OF STOCKTON



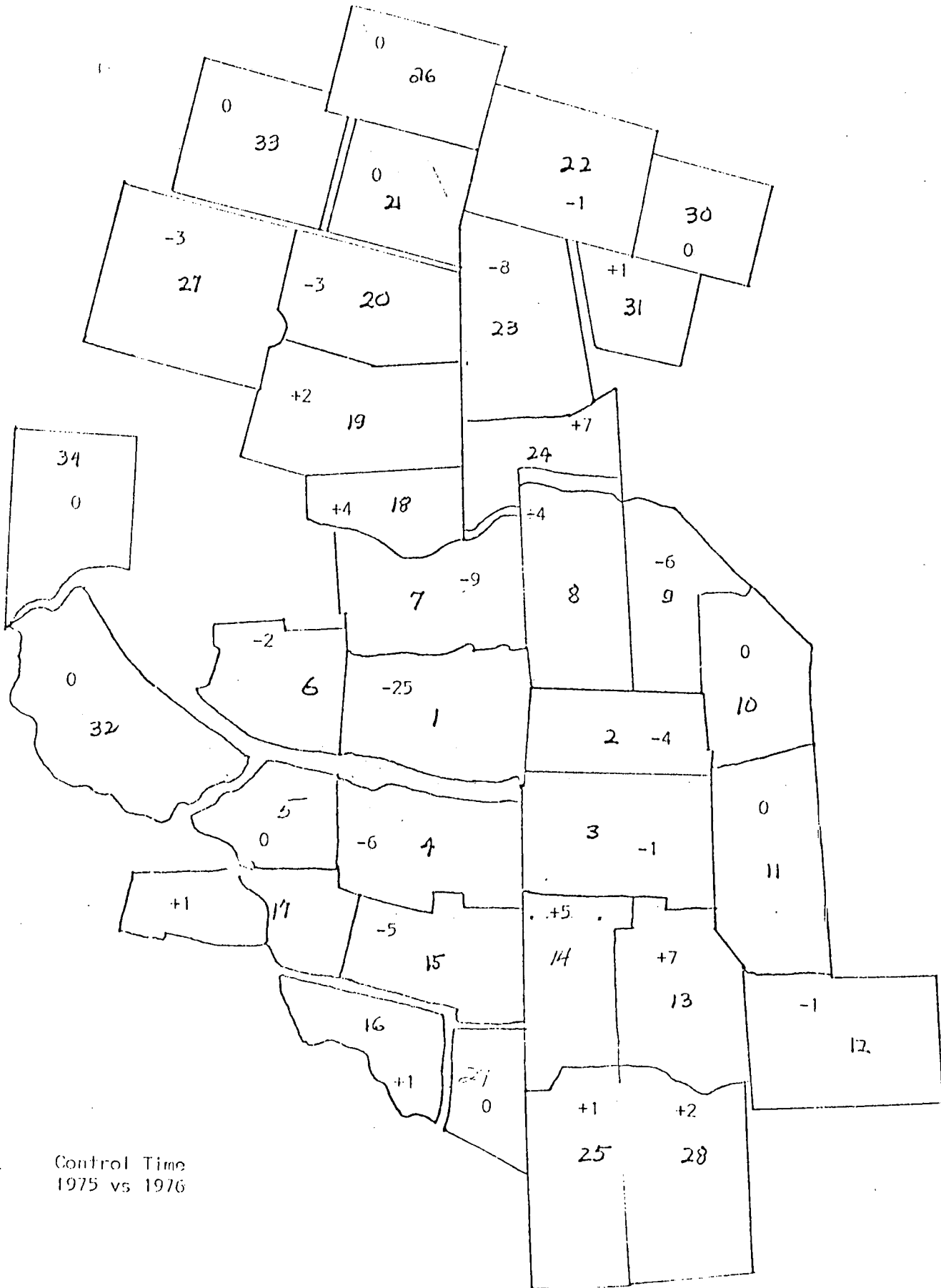
Experimental Time
1975 vs 1976

TABLE VI-6
 CHANGES IN COLLISION PATTERNS FROM 1975 TO 1976
 BY ZONING AREAS - CONTROL TIME

<u>AREA</u>	<u>1975</u>	<u>1976</u>	<u>CHANGE</u>	<u>x²</u>	
1	46	21	-	9.33	p < .01
2	22	18	-	.4	
3	47	46	-	.01	
4	16	10	-	1.38	
5	0	0	0	0	
6	6	4	-	.4	
7	18	9	-	3.00	
8	8	12	+	.8	
9	3	2	-	.2	
10	2	2	0	0	
11	6	6	0	0	
12	2	1	-	.33	
13	8	15	+	2.13	
14	33	23	-	.41	
15	22	14	-	1.78	
16	3	4	+	.14	
17	1	2	+	.33	
18	5	9	+	1.14	
19	2	4	+	.67	
20	7	4	-	.82	
21	3	3	0	0	
22	6	5	-	.09	
23	18	10	-	2.29	
24	4	11	+	3.27	
25	0	1	+	1	
26	0	0	0	0	
27	4	1	-	1.8	
28	1	3	+	1	
29	2	2	0	0	
30	0	0	0	0	
31	0	1	+	1	
32	0	0	0	0	
33	0	0	0	0	
34	0	0	0	0	

FIGURE VI-2

CITY OF STOCKTON

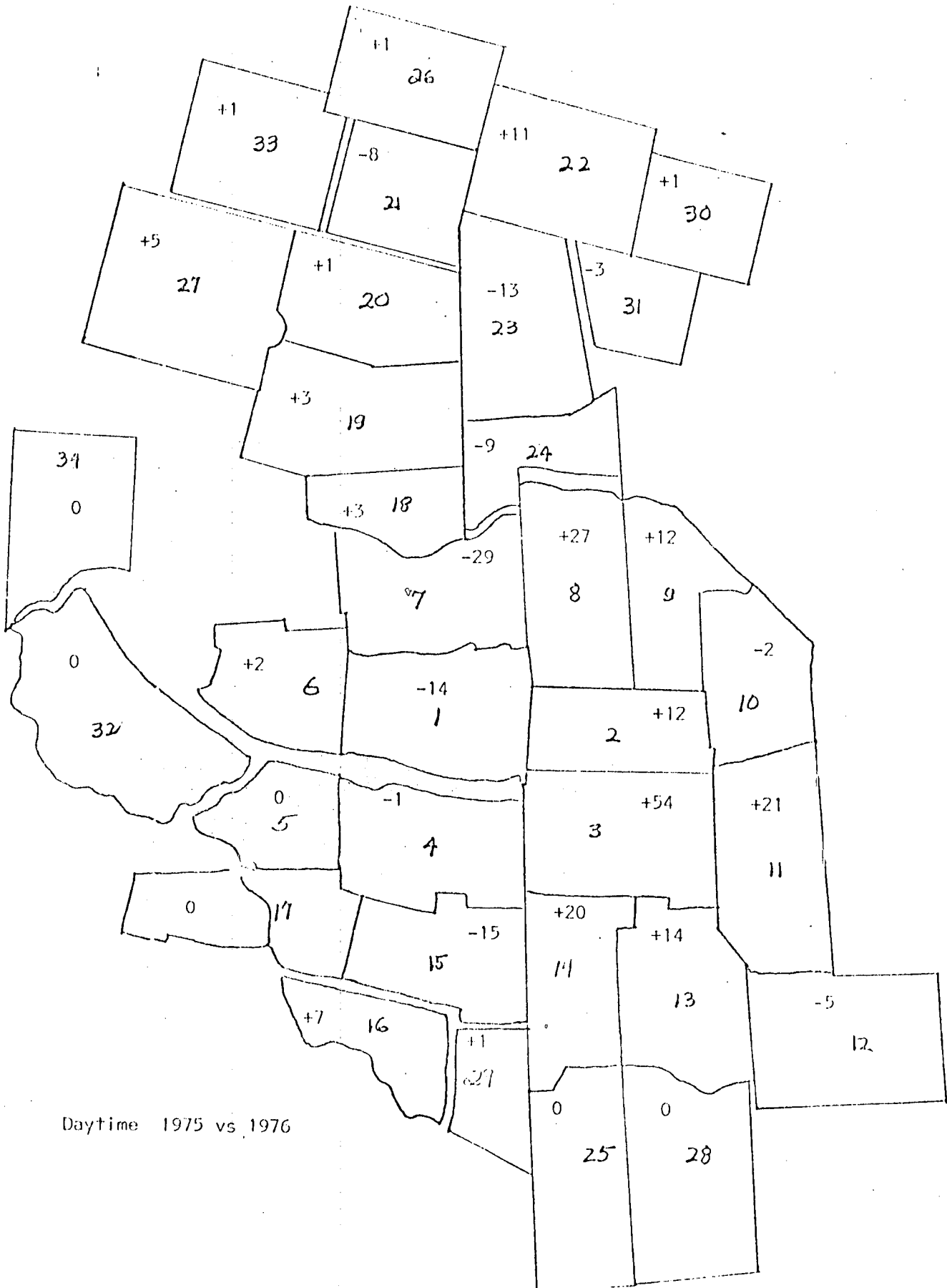


Control Time
1975 vs 1976

TABLE VI-7
 CHANGES IN COLLISION PATTERNS FROM 1975 to 1976
 BY ZONING AREAS - DAYTIME

<u>AREA</u>	<u>1975</u>	<u>1976</u>	<u>CHANGE</u>	<u>χ²</u>	
1	158	144	-	.65	
2	101	113	+	.67	
3	359	413	+	3.78	
4	40	39	-	.01	
5	1	1	0	0	
6	11	13	+	.17	
7	86	57	-	5.88	p < .05
8	52	89	+	6.82	p < .01
9	13	25	+	3.79	
10	10	8	-	.22	
11	31	52	+	5.31	p < .05
12	8	3	-	2.27	
13	26	40	+	2.97	
14	114	134	+	1.61	
15	68	55	-	1.37	
16	5	12		2.88	
17	0	0	0	0	
18	38	41	+	.11	
19	18	21	+	.23	
20	18	19	+	.03	
21	31	23	-	.59	
22	18	29	+	2.57	
23	70	57	-	1.33	
24	35	26	-	1.33	
25	0	0	0	0	
26	1	2	+	.33	
27	5	10	+	1.67	
28	2	2	0	0	
29	2	3	+	.2	
30	0	1	+	1	
31	4	1	-	1.8	
32	0	0	0	0	
33	2	3	+	.33	
34	0	0	0	0	

FIGURE VI-3



Daytime 1975 vs 1976

COMPARISON OF CHANGES IN TRAFFIC FLOW FOR THE CITY OF STOCKTON

A comparison of the daily average traffic flow over major arterials in the City of Stockton between the years 1974 to 1976 was performed to determine if there have been any large adjustments in the traffic flow pattern. Chi-squares were performed on all major arterials and showed no significant change in traffic flow over the two-year period. A T-test was then performed on changes within each area. Neither Area A nor Area B had a significant change in traffic flow.

Methodology

Daily average traffic flow counts were obtained from the City of Stockton's Traffic Engineer for the period of April through September 1974 and January 1975 through July 1976. These counts were taken on the major arterials in the city. Table VI-8 indicates the major changes. The numbers in the table should be multiplied by 1,000 to arrive at the actual figures.

Results and Discussion

Chi-squares were performed on all major arterials and showed no significant decrease in traffic flow over the two-year period. Four arterials in Area A and six arterials in Area B showed changes of at least 2,000 cars per day. Chi-squares performed on these arterials were not significant. A T-test for differences within each area showed no significant change in either Area A or Area B. Figures VI-4 shows the major arterial traffic flow changes.

Conclusions

Based upon these results, there has not been a significant change in traffic flow patterns in the City of Stockton from 1974-1975 to 1975-1976.

TABLE VI-8

CHANGES IN DAILY AVERAGE TRAFFIC FLOW (x 1,000)
FROM 1974 TO 1976 IN STOCKTON

<u>AREA A</u>	<u>1974</u>	<u>1976</u>	<u>CHANGE</u>
Hammer	11.6	14.65	+ 3.05
Ben Holt	8.42	10.58	+ 2.16
Swain	5.5	6.05	+ .55
Robinhood	8.4	9.5	- 1.1
March	8.4	12.1	+ 3.7
Acacia	4.23	4.08	- .15
Park	6.00	6.13	+ .13
Fremont	6.50	7.15	+ .65
Weber	8.63	7.5	- .13
Charter	12.7	13.0	+ .3
Pershing	13.72	11.16	- 2.56
Center	14.6	14.5	- .1
El Dorado	13.5	13.08	- .42
Pacific	22.52	22.36	- .16

<u>AREA B</u>	<u>1974</u>	<u>1976</u>	<u>CHANGE</u>
Hammer	16.67	22.8	+ 6.13
Swain	5.0	5.2	+ .2
Bianchi	12.18	15.0	+ 2.83
Yokuts	10.0	6.9	- 3.1
Alpine	12.88	12.54	- .34
Harding	18.35	20.28	+ 1.93
Park	4.18	4.37	+ .19
Miner	12.43	13.08	+ .65
Weber	8.4	8.58	+ .02
Main	5.4	5.2	- .2
Lafayette	2.0	1.7	- .3
Charter	29.5	28.0	- 1.5
El Dorado	20.1	18.7	- 1.4
California	9.31	9.5	+ .19
West Lane	14.7	15.56	+ .86
Wilson	15.57	16.2	+ .63
Airport	11.78	12.52	+ .74

FIGURE VI-4

CITY OF STOCKTON

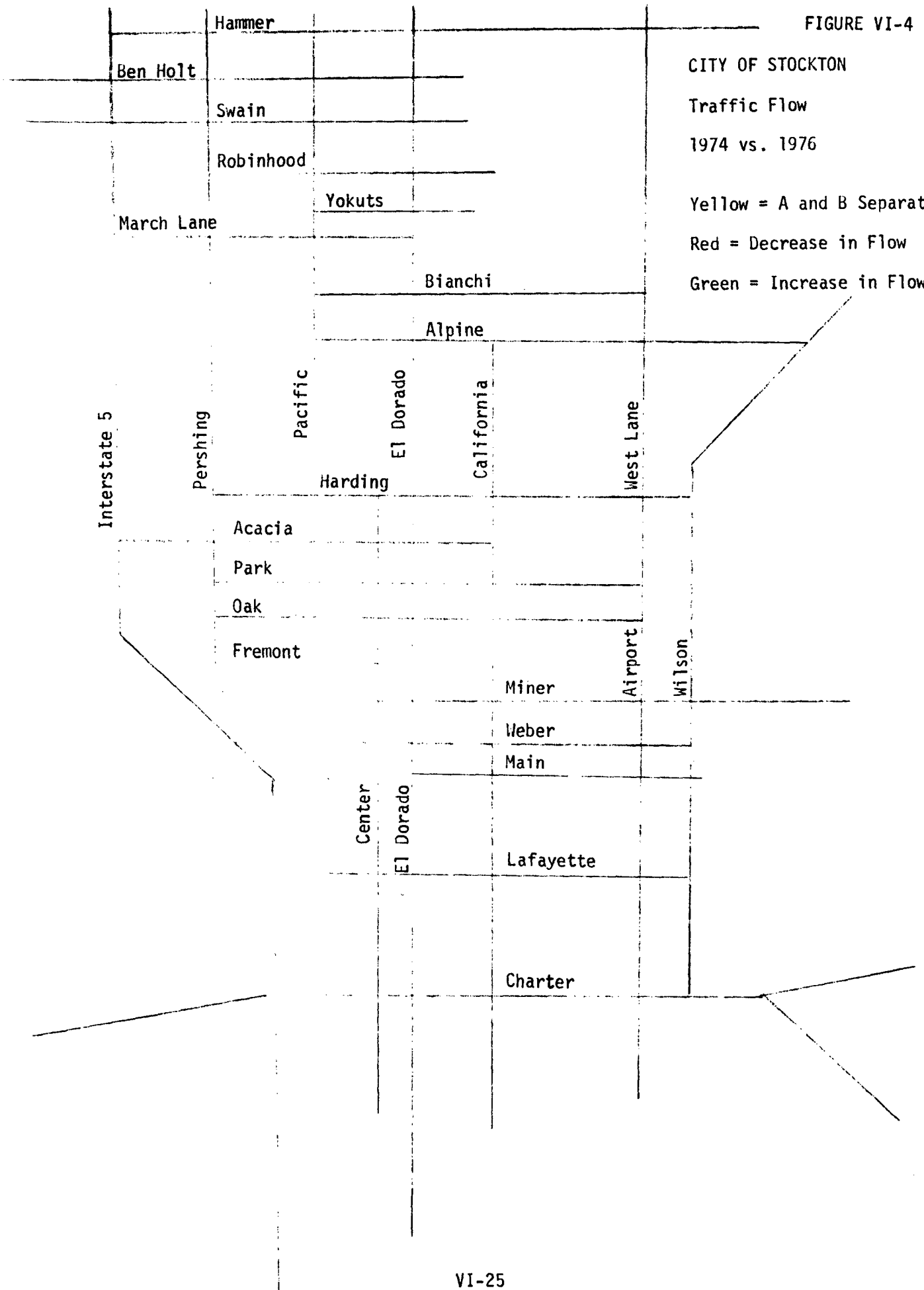
Traffic Flow

1974 vs. 1976

Yellow = A and B Separation

Red = Decrease in Flow

Green = Increase in Flow



PROFILES OF D.U.I. ARREST AND ROADSIDE SURVEY D.U.I. PARTICIPANTS

The profile of D.U.I. arrests made by the TTF Patrol, Regular Patrol and participants at the roadside survey were compared to determine whether there were biases in the types of people arrested by the TTF. For the period of January through June 1976, the profiles for TTF arrests, Regular Patrol arrests, and roadside survey participants who were D.U.I.s showed that both the typical D.U.I. being arrested and the typical roadside survey participant who was D.U.I. were male, white, and 20-29 years of age. The data indicates that the Traffic Task Force has not been biased in the type of person they arrest for D.U.I.

Methodology

Profiles for Traffic Task Force D.U.I. arrests, Regular Patrol arrests, and D.U.I.s stopped at the roadside survey were collected for January through June 1976. The profiles were composed of sex, age and ethnicity. Table VI-9 shows the proportion of individuals falling into each of the categories.

Results and Discussion

No statistical test was performed on the data. By looking at the proportions of D.U.I.s falling into each category, it is clear that the Traffic Task Force, Regular Patrol, and roadside survey all showed the typical person being sampled (arrested) was male, white and 20-29 years of age.

Conclusions

The data indicate that there was no bias in the type of person being arrested by the Traffic Task Force for D.U.I. when compared to the Regular Patrol or the roadside survey D.U.I.s.

TABLE VI-9

PROFILE OF D.U.I. ARRESTS MADE BY TTF AND REGULAR PATROL
VERSUS ROADSIDE SURVEY D.U.I. PROFILES

JANUARY THROUGH JUNE, 1976

	<u>TTF</u>	<u>Regular</u>	<u>Roadside Survey</u>
Male	92.2	89.8	86.4
Female	7.8	10.2	13.6
Black	13.4	12.2	19.8
White	46.8	53.0	49.4
Mexican-American	38.0	33.3	29.6
Oriental	.5	.4	.9
Filipino	.3	.6	1.2
Other	.95	.42	0
<u>Age</u>			
15 - 19	6.4	7.8	16.0
20 - 29	30.0	37.5	38.3
30 - 39	22.0	24.0	22.2
40 - 49	21.2	16.5	13.6
50 - 59	16.4	9.5	6.2
60 - 69	4.05	3.6	2.5
70 - 79	.16	.84	1.2
80 - 89	0	.2	0

PERCENT OF D.U.I.S AT ROADSIDE SURVEYS

The percent of drivers at the roadside survey with BACs above .10 were compared with the October through December baseline to see if there had been a decrease in the number of D.U.I. drivers interviewed during the January through June 1976 (operational) period. An ANOVA was performed on the data and showed that Area A had significantly less ($p < .05$) .10s in the operational period than in baseline; but there was no significant difference in Area B. It may be concluded that the Traffic Task Force is not having a significant impact on the BAC level of drivers in Area B but may be impacting drivers in Area A.

Methodology

It was hypothesized that if the Traffic Task Force was impacting the number of drivers with BAC levels over .10, it would show in the BAC levels of roadside survey participants. An ANOVA was performed on both baseline versus operational periods and Area A versus Area B.

The percentage of participants at the roadside survey with BAC levels equal to or more than .10 was collected for the October through December 1975 baseline period and the January through June 1976 operational period.

Results and Discussion

The ANOVA showed that there was a significant decrease ($p < .05$) in Area A in the number of .10 BAC participants at the operational period roadside survey when compared to the baseline period. Area B did not show a significant difference in the frequency of .10 BACs at the roadside survey from the baseline to operational period. Table VI-10 shows the percent of interviewees at the Roadside Survey with a BAC equal to or greater than .10.

Conclusions

The data indicate that the presence of the Traffic Task Force did not impact the number of .10 BACs at the roadside survey in Area B (Experimental Area). Area A (Control Area) did show a significant decrease in .10 BACs. It was hypothesized that the Area A decrease was due to a difference in socioeconomic levels between the two areas, Area A having a higher level than Area B.

TABLE VI-10

PERCENT OF INTERVIEWEES AT ROADSIDE SURVEY WITH BAC > .10

D.U.I.s October - December, 1975

<u>WEEK</u>	<u>DATE</u>	<u>A</u>	<u>B</u>	<u>TOTAL</u>
1	10-1	13.7	12.0	12.9
2	10-10	5.9	17.5	11.0
3	10-18	13.1	13.1	13.2
4	10-24	2.8	10.0	7.5
5	11-1	9.0	11.1	9.6
6	11-8	9.8	13.6	11.4
7	11-15	6.8	2.0	4.6
8	11-22	12.5	3.2	6.8
9	11-28	14.9	7.5	11.0
10	12-5	3.7	4.4	4.0
11	12-12	8.2	8.6	8.3
12	12-19	9.4	8.2	8.6

D.U.I.s January - June, 1976

<u>WEEK</u>	<u>DATE</u>	<u>A</u>	<u>B</u>	<u>TOTAL</u>
13	1-3	5.0	4.5	4.8
14	1-9	5.4	8.3	6.7
15	1-16	4.2	8.8	6.7
16	1-23	9.1	5.0	6.9
17	1-31	6.2	15.8	11.5
18	2-6	5.4	8.8	7.0
19	2-14	7.5	11.5	8.6
20	2-20	5.6	11.3	8.5
21	2-27	0	0	0
22	3-6	6.2	5.1	5.9
23	3-12	7.3	2.5	5.2
24	3-20	4.4	20.4	13.0
25	3-27	3.9	5.0	4.5
26	4-2	4.9	0	2.7
27	4-9	6.7	0	3.9
28	4-16	-	-	-
29	4-24	1.7	9.1	5.3
30	4-30	8.0	17.6	12.9
31	5-7	8.2	7.8	8.0
32	5-15	5.1	4.1	4.6
33	5-22	10.3	11.1	10.6
34	5-28	6.9	5.4	6.7
35	6-4	6.2	2.5	4.5
36	6-11	10.0	13.0	11.3
37	6-19	3.6	7.1	5.2
38	6-26	7.3	0	3.4

A COMPARISON OF HIGH VERSUS LOW SOCIOECONOMIC (SES) AREAS USING ROADSIDE SURVEY DATA OVER BASELINE AND EXPERIMENTAL TIME PERIODS

Background

One variable not adequately controlled in the original divisions of the City of Stockton into two equivalent areas was socioeconomic (SES) level. Many people stopped at the roadside survey indicate that they are coming from or going to home. These findings suggest that there is a good chance that people, when stopped at a survey, are in relatively close proximity to their home. The assumption is made that the data collected at a survey site reflects the parameters existing in that area at that time. In order to assess the effects of this variable, six survey sites were defined as socioeconomically low and six were defined as socioeconomically high.

Method

Twenty residents of Stockton volunteered to judge whether a particular area was high or low. The residents were given a list of all the sites for the Roadside Surveys and asked to judge if the site was high or low socioeconomically. They used their own intuitive definition of high and low socioeconomic area. The responses of the twenty subjects were recorded and tested statistically using a chi-square test. The agreement of the 20 subjects and the experimenter definition of the areas was significant beyond the $p < .01$ level of significance. The experimenter concluded that the areas selected were adequately defined and concurrently reliable.

A contingency table of BAC frequencies was formed from the high and low sites using data from the baseline period and the experimental period for blood alcohol levels. Table VI-11 shows the contingency table with corresponding BAC frequencies. A chi-square test of the BAC frequencies in each BAC contingency was performed.

Results

The results showed that for the high SES group the following analysis were significant ($p < .01$) when comparing the frequencies for baseline versus operational time: .000-.019 vs. .020-.050; .000-.049 vs. .050-.500; .000-.099 vs. .100-.500. None of the results for the low SES groups were significant.

TABLE VI-11

	BASELINE		EXPERIMENTAL	
	HIGH	LOW	HIGH	LOW
.000-.019	217	143	508	337
.020-.049	55	27	258	72
.050-.099	31	34	62	70
.100-.500	27	25	30	49

Regression analyses were performed on the weekly data for both the baseline period and the experimental period (total of 16 analyses). Several trends were indicated, but only one cell (.020-.049, experimental period, high SES) showed a significant linear change. The data suggests that there was a significant increase in the number of .020-.049 BAC drivers in the high SES areas during Experimental Time. Table V-12 shows the results of the regression analysis.

TABLE VI-12

REGRESSION ANALYSIS OF BAC FREQUENCIES IN HIGH AND LOW SES
AREAS FOR BASELINE AND EXPERIMENTAL TIMES
(16 Regression Analysis)

BACs	HIGH		LOW	
	BASELINE	EXPERIMENTAL	BASELINE	EXPERIMENTAL
.000-.010	No Change	No Change	No Change	No Change
.020-.049	No Change	Increase $p < .015$	No Change	No Change
.050-.099	No Change	No Change	No Change	No Change
.100-.500	No Change	No Change	No Change	No Change

* No change refers to statistically significant

Discussion

Several conclusions can be drawn from the data. First, there has been a decrease in the relative frequency of D.U.I. drivers in the high socio-economic areas; whereas, the proportion remained about the same in the low SES areas. The regression analyses suggest more drivers in high SES areas are drinking less. We would interpret these findings as follows: (1) People in the high SES areas are more aware of the TTF program than the people in the low SES areas; (2) People in the high SES areas may feel they have more to lose as a result of the TTF program and there, have chosen not to drink and drive as often; (3) The presence of the TTF is not felt in the low SES areas; (4) People in low SES areas do not perceive the TTF as a threat; (5) The media has not communicated the presence of the TTF to people in the low SES areas. These suggestions are supported by the fact that proportionally more people in the high SES areas have reduced the amount of alcohol consumed. The increase of low BACs in the high SES areas strongly supports the conclusions that the TTF program is having an impact on the BAC levels for the people traveling in the high SES areas but not having an effect on the drivers in the low SES areas.

SECTION VII

APPENDIX

SECTION VII

APPENDIX

1. Total Collisions
2. D.U.I. Collisions
3. D.U.I. Arrests
4. Traffic Citations
5. Roadside Survey BACs
6. TTF Officer Performance
7. Roadside Survey Form

TABLE A
 COMPARISON OF BASELINE COLLISIONS WITH
JANUARY THROUGH JUNE, 1976

	<u>JANUARY</u>					
	<u>EXPERIMENTAL</u>		<u>CONTROL</u>		<u>DAYTIME</u>	
	A	B	A	B	A	B
1973	13	18	19	30	156	180
1974	25	24	26	27	138	150
1975	23	20	36	24	114	150
1976	17	16	21	19	117	152
	<u>FEBRUARY</u>					
	A	B	A	B	A	B
1973	21	22	13	26	132	146
1974	19	23	22	18	137	124
1975	26	27	19	16	131	166
1976	8	13	9	27	134	178
	<u>MARCH</u>					
	A	B	A	B	A	B
1973	24	23	20	18	164	190
1974	35	33	22	18	136	157
1975	29	30	23	24	155	148
1976	17	18	21	39	124	182
	<u>APRIL</u>					
	A	B	A	B	A	B
1973	16	16	20	16	116	176
1974	23	14	26	28	168	165
1975	29	23	36	25	145	171
1976	15	19	15	28	108	185

TABLE A (Continued)

	<u>MAY</u>					
	<u>EXPERIMENTAL</u>		<u>CONTROL</u>		<u>DAYTIME</u>	
	A	B	A	B	A	B
1973	24	19	25	26	126	190
1974	24	17	35	23	163	163
1975	28	32	20	25	137	145
1976	14	16	20	20	128	205
	<u>JUNE</u>					
	A	B	A	B	A	B
1973	23	27	26	34	127	165
1974	30	21	42	31	139	151
1975	24	16	43	44	139	136
1976	19	23	28	28	125	169

TABLE B

COMPARISON OF BASELINE DUI COLLISIONS WITH JANUARY THROUGH JUNE, 1976

	<u>JANUARY</u>					
	<u>EXPERIMENTAL</u>		<u>CONTROL</u>		<u>DAYTIME</u>	
	A	B	A	B	A	B
1973	5	8	5	7	9	9
1974	3	10	6	12	8	10
1975	7	4	5	11	12	12
1976	4	9	6	10	11	15

	<u>FEBRUARY</u>					
	A	B	A	B	A	B
1973	7	7	3	10	7	7
1974	9	10	7	8	8	9
1975	6	10	9	19	4	3
1976	3	1	5	9	8	11

	<u>MARCH</u>					
	A	B	A	B	A	B
1973	8	5	8	6	14	13
1974	9	10	6	5	10	10
1975	9	14	7	10	6	5
1976	7	8	12	20	8	13

	<u>APRIL</u>					
	A	B	A	B	A	B
1973	5	5	7	10	4	14
1974	5	6	9	11	6	9
1975	7	8	7	13	19	12
1976	3	5	3	10	9	12

	<u>MAY</u>					
	A	B	A	B	A	B
1973	9	9	5	3	6	10
1974	9	7	14	9	13	19
1975	13	11	5	9	7	12
1976	5	8	5	5	5	9

TABLE B (Continued)

	<u>JUNE</u>					
	<u>EXPERIMENTAL</u>		<u>CONTROL</u>		<u>DAYTIME</u>	
	A	B	A	B	A	B
1973	4	8	6	9	5	15
1974	8	6	8	10	11	11
1975	8	8	10	11	7	7
1976	5	6	10	12	7	8

TABLE C

COMPARISON OF DUI ARRESTS DURING THE EXPERIMENTAL
TIME FOR JANUARY THROUGH JUNE, 1976

	<u>JANUARY</u>		<u>FEBRUARY</u>		<u>MARCH</u>	
	A	B	A	B	A	B
1973	4	7	7	10	13	13
1974	12	23	14	20	14	30
1975	11	15	6	6	13	7
1976	17	99	16	101	19	95

	<u>APRIL</u>		<u>MAY</u>		<u>JUNE</u>	
	A	B	A	B	A	B
1973	6	13	5	8	6	16
1974	6	24	9	21	9	31
1975	9	7	11	10	12	6
1976	18	111	13	117	18	123

TABLE D

COMPARISON OF TRAFFIC CITATIONS DURING THE
EXPERIMENTAL TIME FOR JANUARY THROUGH JUNE, 1976

	<u>JANUARY</u>		<u>FEBRUARY</u>		<u>MARCH</u>	
	A	B	A	B	A	B
1973	60	60	59	33	99	84
1974	42	43	28	35	87	119
1975	140	87	60	29	60	55
1976	98	312	130	274	121	270

	<u>APRIL</u>		<u>MAY</u>		<u>JUNE</u>	
	A	B	A	B	A	B
1973	34	29	36	33	83	50
1974	48	100	73	68	218	57
1975	150	100	98	55	113	43
1976	109	347	128	409	95	267

TABLE E

MEAN BAC FROM ROADSIDE SURVEY FOR JANUARY THROUGH JUNE, 1976

<u>DATE</u>	<u>AREA A</u>	<u>AREA B</u>	<u>CITY WIDE</u>
1-3	.026	.028	.026
1-9	.024	.036	.029
1-16	.022	.033	.028
1-23	.024	.023	.024
1-31	.024	.039	.032
2-6	.028	.033	.031
2-14	.032	.038	.035
2-20	.028	.029	.029
2-27	.024	.019	.021
3-6	.035	.032	.034
3-12	.027	.019	.024
3-20	.020	.051	.037
3-27	.019	.026	.023
4-2	.023	.026	.025
4-9	.029	.020	.025
4-16*			
4-24	.026	.031	.029
4-30	.031	.048	.039
5-7	.029	.031	.030
5-15	.032	.025	.029
5-22	.037	.035	.036
5-28	.031	.034	.032
6-4	.032	.020	.026
6-11	.032	.039	.035
6-19	.025	.032	.028
6-26	.032	.025	.028

* Incomplete sample. Sites closed down at midnight due to illness of reserve officer.

TABLE F
COST PER D.U.I. ARREST

Total D.U.I. Arrests	639
TTF Hours Worked	4,208.50
Cost Per TTF Hour	\$ 11.47
Supervisor Hours Worked	416
Cost Per Supervisor Hour	\$ 13.20
Cost Per Vehicle Mileage	\$ 8,975.08
Cost Per D.U.I. Arrest	\$ 98.18

TABLE G
TRAFFIC TASK FORCE ACTIVITY SUMMARY - JANUARY THROUGH JUNE 1976

	<u>JANUARY</u>	<u>FEBRUARY</u>	<u>MARCH</u>	<u>APRIL</u>	<u>MAY</u>	<u>JUNE</u>
D.U.I. Arrests	99 (.128)*	100 (.142)	91 (.142)	107 (.158)	116 (.149)	126 (.196)
Traffic Citations	372 (.483)	308 (.439)	302 (.470)	415 (.615)	476 (.613)	340 (.530)
Traffic Warrant Arrests	5 (.006)	1 (.001)	1 (.002)	2 (.003)	2 (.002)	2 (.003)
Field Contacts	674 (.875)	590 (.840)	744 (1.16)	797 (1.18)	973 (1.25)	830 (1.29)
Detention and Release	10 (.013)	10 (.014)	15 (.023)	19 (.028)	17 (.022)	18 (.028)
Criminal Arrest	12 (.016)	27 (.038)	15 (.023)	25 (.037)	34 (.044)	37 (.058)
Other Calls	118 (.153)	108 (.154)	73 (.114)	34 (.052)	52 (.067)	65 (.101)
Total Man Hours	770	702	643	675	777	641.5
Total Stops	1,162	1,009	1,153	1,340	1,584	1,316
Total Stops/Man Hours	1.5	1.4	1.79	1.98	2.04	2.05
<u>CHEMICAL TESTS</u>						
Breath	79	86	69	87	89	101
Blood	3	3	2	4	10	8
Urine	5	4	7	8	7	8
Refusal	12	7	13	7	10	9
AVERAGE D.U.I. PER MAN	1.1	1.25	1.14	1.2	1.2	1.58
AVERAGE BAC	.167	.16	.17	.16	.17	.17

* Numbers in parenthesis indicate the proportion of time per man hour spent in each of the activities.

TABLE H

TOTAL D.U.I. ARRESTS AND TRAFFIC CITATIONS BY TRAFFIC TASK FORCE OFFICERS
FOR JANUARY THROUGH JUNE, 1975 VERSUS JANUARY THROUGH JUNE, 1976

<u>OFFICER</u>	<u>NUMBER OF D.U.I. ARRESTS</u>		<u>NUMBER OF TRAFFIC CITATIONS</u>	
	1975	1976	1975	1976
1	2	10.5	414.5	421.5
2	1	21	412	456.5
4	0	12	84	81
5	2.5	15	491	391
6	8	61.5	197	162.5
9	1	18	77	82
11	1	16	575.5	517
14	1	25.5	827.5	727
17	10	43.5	99	127
18	3.5	20.5	69.5	48.5
19	3.5	5.5	49.5	41
20	2	20.5	55.5	94.5
22	2	3	34.5	37.5
23	2.5	11.5	37.5	74
24	11.5	25.6	91	118.5
25	6	20	74	136
27	1	7	27.5	73
28	5	24	106	185
30	3	13.5	32	101.5
33	3	21	478	410
34	1	14.5	65	106.5
35	7.5	54.5	46	102.5
36	8.5	70.5	73	118
39	4.5	10.5	71.5	90
40	2	15.5	46.5	82.5
43	.5	24	538	374.5
44	.5	2.5	22.5	27.5
45	2.5	7	135	104.5
46	9	13	73.5	53.5
49	2	29	1,336.5	1,029
53	3	1	73	72.5
54	1.5	12.5	499	540.5
56	3.5	7	46.5	101.5
58	6.5	23.5	149.5	182
59	7	24	89	75.5

TABLE I

TRAFFIC TASK FORCE SUPERVISORS' PERFORMANCE - JANUARY THROUGH JUNE, 1976

<u>Supervisor</u>	<u>Days Worked</u>	<u>Proportion of DUI Arrests</u>
201	6	10.3
202	7	12.1
203	9	13.4
204	4	14.0
205	6	12.5
206	5	14.0
207	4	12.0
208	2	13.0
209	3	8.7
210	6	11.7

TABLE J
 ANALYSIS OF TRAFFIC TASK FORCE PERFORMANCE
 FOR JANUARY THROUGH JUNE, 1976

Days	= 8.8	Days	= 1
D.U.I./A	= 10.8	D.U.I./A	= 1.2
Criminal/A	= 2.5	Criminal/A	= .28
Citations	= 37.4	Citations	= 4.2
Field Contacts	= 77.6	Field Contacts	= 8.8
BAC	= .16	BAC	= .16
Other Calls	= 7.6	Other Calls	= .86

TABLE K

COMPARISON OF TRAFFIC CITATIONS AND D.U.I. ARRESTS
FOR THE REGULAR PATROL VERSUS THE TRAFFIC TASK FORCE
DURING EXPERIMENTAL TIME JANUARY THROUGH JUNE, 1976

	Patrol		Traffic Task Force	
	<u>A</u>	<u>B</u>	<u>A</u>	<u>B</u>
Citations	616	719	186	2,027
D.U.I. Arrests	49	61	51	588

TABLE L

MAN HOURS, MILEAGE AND COST FOR PATROLS
JANUARY THROUGH JUNE, 1976

Month	REGULAR PATROL			TRAFFIC TASK FORCE		
	<u>Hours</u>	<u>Mileage</u>	<u>Cost</u>	<u>Hours</u>	<u>Mileage</u>	<u>Cost</u>
January	1,752	11,500	\$2,760.00	770	7,269	\$1,744.56
February	1,560	6,811	1,635.64	702	5,784	1,388.16
March	1,480	7,883	1,891.92	643	5,966	1,431.84
April	1,724	7,966	1,911.84	675	6,000	1,440.00
May	1,603	10,003	2,400.72	777	6,816	1,635.84
June	1,435	5,368	1,288.32	641.5	5,490	1,334.68

TABLE M
 CRIMINAL ARRESTS MADE BY TRAFFIC TASK FORCE
 JANUARY THROUGH JUNE, 1976

January

Burglary	2
Assault	1
Traffic Warrants	5
Drugs	1
Other	2

February

Burglary	1
Traffic Warrants	1
Drugs	1

March

Auto Theft Arrest	2
Traffic Warrants	1
Drugs	1

April

Robbery	1
Traffic Warrants	2

May

Traffic Warrants	2
Drugs	1
Auto Theft Arrest	3
Other	3

June

Traffic Warrants	2
Drugs	1
Other	1

TABLE N

TOTAL PROPERTY RECOVERED BY TIME OF DAY BY AREA
FOR JANUARY THROUGH JUNE, 1976

	<u>DAYTIME</u>	<u>EXPERIMENTAL</u>	<u>CONTROL</u>
Area A	\$ 68,720	\$15,950	\$336.57
Area B _x	57,227	15,934	288.71
Area B-B _x	50,525	6,438	152.09
TOTALS	\$176,472	38,322	807.37
Traffic Task Force Recovery	-0-	2,100	-0-

TABLE O
ROADSIDE SURVEY FORM

(2400 clock)

(1-6) Date: _____ (7) Interviewer's no.: 1 2 3 4 (8-11) Start time: _____
 (12) Form: English (1) Spanish (2) (16-22) Location _____
 (23) Area A (1) B (2)

(24) Heard of Survey? Yes (1) No (2)
 (25) Source: Radio (1) _____ T.V. (2) _____ Newspaper (3) _____ Speech (4) _____
 Bulletin Board (5) _____ Friend (6) _____ Other (7) _____

(26) Have you participated in the survey before? Yes (1) _____ No (2) _____
 Do you have a card? Yes (1) _____ No (2) _____

(27) Willingness to participate:
 Readily _____ Reluctant _____ Refused _____

(28) Sex of driver: M (1) F (2) (29) Resident: Yes (1) _____ No (2) _____

(30) Ethnicity: Black (1) White (2) Mexican-American (3) Oriental (4)
 Fillapino (5) Other (6)

(31-32) Number of passengers: _____

(33-34) <u>Comming From</u>	(35-36) <u>Going to</u>
_____ (1)	_____ (1) Out of county
_____ (2)	_____ (2) Own Home
_____ (3)	_____ (3) Friends or relative
_____ (4)	_____ (4) Work/class
_____ (5)	_____ (5) Store
_____ (6)	_____ (6) Restaurant
_____ (7)	_____ (7) Hospital
_____ (8)	_____ (8) Bar, Tavern, Club
_____ (9)	_____ (9) Sport, Cultural Event
_____ (10)	_____ (10) Other _____

(37-38) Driver's Age: _____

(40) Do you know anyone that has been arrested for Drunk Driving? Yes (1)
 No (2)

(41) Within Past Month? (1) Past Year? (2) Other (3)

(42) How do you feel about the increased enforcement?
 very positive (1) sightly positive (2) slightly negative (3) very negative (4)

(43) Take BAC Yes (1) No (2)

(44-46) BAC Level: Final BAC _____ (47) Number obtained _____

(50) Ride Home: Yes (1) No (2) (51) Accepted: Officer (1) Passenger (2)

(52) Refused: Yes (1) No (2) (53) Arrested: Yes (1) No (2)

(54) Reason for refusal:
 Had been drinking (1) _____ Hostile (2) _____ Other (3) _____