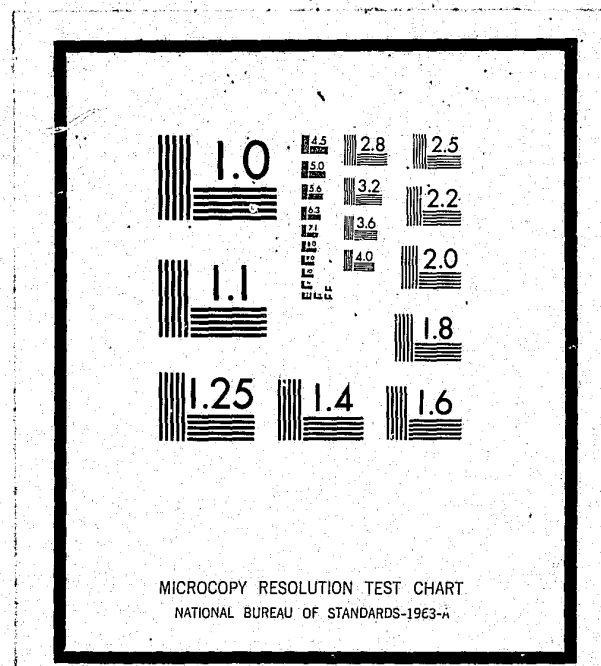


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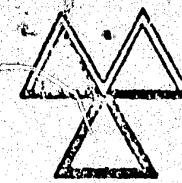
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REGION 5

### FIELD REVIEW REPORT

<u>Project:</u>	Foot Patrol	<u>Grant Award:</u>	\$1,000,000
<u>Project Number:</u>	S-MP1-73-d1	<u>Subgrant Period:</u>	1/15/73 - 9/15/73
<u>Subgrantee:</u>	St. Louis Police Dept.	<u>Project Director:</u>	Captain John Walsh
<u>Date of Report:</u>	October 1, 1973	<u>Authorized Official:</u>	Colonel Theodore McNeal
<u>Prepared By:</u>	Joe Cavato, Program Analyst Reese Joiner, Fiscal Officer Dennis McCarthy, Evaluation Analyst		

### SCOPE OF REVIEW

This review consisted of surveys of fiscal and programmatic records, limited tests of project records, and interviews with key personnel. The overall objectives of the field review are:

- 1) to review program and fiscal operations for compliance with LEAA, MLEAC Region 5 requirements and compliance with the provisions of the approved subgrant.
- 2) to determine that the project is conducted in an economical and efficient manner and that project objectives are met.
- 3) to determine if administrative and financial controls are adequate to provide accurate and reliable operating and financial reports required for project management and evaluation.
- 4) to determine whether the desired benefits are being achieved.

The field work for the review commenced September 11, 1973. Project personnel contacted included Captain John Walsh and his staff.

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## BACKGROUND

In Phase II of its operation, the Impact Foot Patrol project was expanded to provide city-wide crime prevention services. Foot Patrol activity was to be targeted on the areas and at the times when the Impact crimes of burglary and robbery occurred with the highest frequency. From its initial phase providing foot patrolmen in six high crime Pauly Blocks, the project was expanded to include three components:

- 1) High Crime Pauly Area Patrol of 20 Pauly Blocks
- 2) Omnipatrol, three "mobilized" foot patrol units which were utilized within the three Area Commands of the St. Louis Police Department.
- 3) Shopping Area Patrol, a complement of 37 patrol officers utilized on Friday and Saturday nights in 24 shopping districts.

The Phase II deployment of foot patrol was initiated on February 15, 1973. On the basis of the manning pattern described on the grant application, a full complement provided for a total of 771 watches each week or a total of 5,062 patrol hours each week.

In May of 1973, the operations of the project were re-evaluated and a major adjustment was made. A revised manpower allocation system was developed and approved based on 1973 statistics to specifically attack the target Impact crimes at the time and place of occurrence. The primary thrust of the revision was to provide a method of reducing daytime residential burglary, which had accounted for the greatest increase in crime in the first three months of 1973. The revised manning pattern provided four types of foot patrol, three of which were designed to reduce a specific type of Impact crime:

- 1) Day Residence Burglary Patrol, which included an eleven man Burglary Reduction Unit operating in casual attire and focusing on areas of high daytime burglary activity.
- 2) Robbery and Purse Snatching Patrol, operated from 4 p.m. to 6 p.m., six days a week.
- 3) Nighttime Burglary Patrol, operated from 6:30 p.m. to 12:30 a.m.
- 4) Shopping Center Patrol, which was retained as originally described in the grant.

The Pauly Blocks to be patrolled by each type of foot patrol were selected on the basis of frequency of the particular type of crime targeted for that patrol. Twenty-two Pauly Blocks were selected for patrol, with some blocks receiving more than one type due to a high ranking in more than one crime category. The new patrol pattern was implemented on May 28, 1973.

Another factor involved in the revision was the inability of the

project to man full complements of the patrol patterns originally planned for Phase II. The project was experiencing significant shortfalls (15-30%) in manning the Friday and Saturday night Pauly Block Patrols. Under the revised patrol patterns, the required complements were more easily manned because the total manning rate was significantly reduced. The total number of weekly watches became 662 (as opposed to the former rate of 771) and the number of patrol hours per week became 3,852 (down from 5,062). This represented a 24% reduction in the number of patrol hours manned weekly.

## PROGRAMMATIC FINDINGS

Supplementary information on the project and a more detailed evaluation of its benefits are presented in Appendix I. Results of monitoring and evaluation are summarized in the following paragraphs.

1). Data on the manning of each patrol complement is maintained by the Foot Patrol Office. A summary of the manning experience of the project under the revised patrol patterns is attached as Exhibit 1.

As indicated in the exhibit, the only patrol with a serious variation from the planned manning rate is the Shopping Center Patrol, which has been undermanned by 26.6%. Because of this problem and a general evaluation of a lack of effectiveness of this component, the Department has plans to drop the Shopping Center Patrol.

Due to overscheduling of officers for the Robbery and Purse Snatching Patrol, this component had an average excess of nearly 8%. The two remaining modalities have been manned within one percent of the planned rates. Overall, the total manpower requirements of the revised patrol methodology have been met with a 1.6% shortage.

2). The activity of each watch conducted on the project is recorded and submitted by the individual officer. This data (number of arrests, field interview reports, building and pedestrian checks, etc.) is summarized and reported on a weekly and monthly basis by the project. A summary of the activity reported in Phase II is provided in Exhibit II.

Most of the data indicated on the daily activity report are reported at the discretion of the individual officers and is not supported by related documentation, (e.g., building and pedestrian checks, business interviews, etc.) Some of the more important data are supported by appropriate documentation, such as arrests and field interview reports.

In order to provide some comparison of the rates of activity experienced under the two types of patrol deployment utilized in Phase II, relative rates of activity have been developed and presented in Exhibit III. Since the number and length of watches was revised, the activity rates have been converted to a "per patrol hour" basis in order to provide a standard basis of comparison. Comparative statistics for selected categories of activity are reflected in Exhibit III.

The data generated regarding patrol activity is utilized by project management for monitoring and control purposes. In addition to its presentation in weekly and monthly reports, this information has been utilized to assess the performance of individual officers on the patrol.



3). The project has developed the basic operating systems required for the management and internal monitoring of grant activity. The major systems under utilization are:

- a) application procedure for officers seeking to work under the project, requiring written approval of the applicant's commanding officer and the Project Director.
- b) scheduling and assignment system. Using the department's recreation schedule as the basis for determining officer availability, a system of assignment to foot patrol duty has been developed and is effectively utilized.
- c) maintenance of attendance of data. Records of individual attendance are maintained in the foot patrol office. The incidence of "no shows" are recorded and suspension from foot patrol duty is utilized as a disciplinary measure for lack of attendance. Attendance verification is obtained by completion of rosters by the lieutenant supervising each shift. Rosters are cross checked against activity sheets submitted by the individual officers. In addition, daily tallies of over- and under-manning are maintained for each shift (as described in item 1 above).
- d) operating statistics provided by activity reports. As indicated in item 2, weekly and monthly reports of foot patrol activity are maintained and utilized for project monitoring.

In addition to the systems described above, the project also maintains a log of pertinent memoranda and correspondence, an "order book" of directives to foot patrol personnel, detailed records of all arrests made by foot patrol officers, and other records and information utilized in project management. The procedures and systems developed for the operation of the project were well-maintained and provided current and relevant information to the project staff.

4). During Phase II, from its start to the end of August, 1973, the number of Pauly blocks patrolled and the number of foot patrol hours per week increased with each change in patrol mode. At the same time, however, the average number of foot patrol manhours per patrolled block per day decreased from 29.4 at the end of Phase I to 14.9 at the end of Phase II (car patrol levels during the foot patrol hours are estimated to have remained constant at about 3 manhours per block per day). The number of arrests per week per 100 foot patrol manhours remained relatively constant at about 30 percent of the corresponding rate for car patrols.

5). Impact crimes in patrolled areas decreased relative to the city-wide throughout Phase I and Phase II's two periods of patrol operation, but the decrease became progressively smaller as the patrol modes shifted to less concentrated deployment. The type of Impact crime which appears to have been most affected by the Foot Patrol Project is burglary, especially day residence burglary. On the other hand, night business and night resi-

dence burglary, and Impact crimes in shopping areas, all selected as targets for foot patrol operations during patrol period II-B, appear to have been the least affected. The capability of foot patrol to reduce crimes against the person varied with the degree of patrol concentration, with the greatest reductions experienced at times when the patrols were most concentrated.

6). No conclusive evidence of displacement of Impact crime from patrol areas to non-patrol areas has been found, however, data from patrol period II-B suggests the possibility of displacement of person crime (especially suppressible person crime) within patrol areas from patrol hours to non-patrol hours.

#### Conclusions

Phase II of the Foot Patrol project has been implemented in accordance with LEAA, MLEAC, and grant requirements. No significant deviation from approved grant activity or major operating deficiency was noted. Foot Patrol activity has been targeted at areas and hours where a high incidence of Impact crime has been reported. Systems have been developed and implemented which provide for effective manning of designated patrol patterns and monitoring of performance.

There are several areas of program operation where a reassessment or re-evaluation is recommended, these areas are:

1). The current method of selection and assignment of foot patrol officers provide for random allotment of available officers to the various foot patrol assignments. Thus each patrol unit consists of a group of officers (lieutenant, sergeants and patrolmen) from various districts and bureaus within the Department. The randomness of this procedure provides several disadvantages:

- a.) difficulty in creating and maintaining supervising relationships among officers who do not regularly work with each other.
- b.) inability to provide specialized foot patrol training for officers used on the patrol. With nearly 1200 men scattered throughout the Department participating, a workable method of reaching participants with some form of specialized training for foot patrol activities has not yet been developed.
- c.) lack of familiarity by many officers with the areas they patrol under foot patrol assignment. This extends both to the physical and other characteristics of the areas and to the current types of criminal activity being experienced in the target area.
- d.) a lack of continuity of officers assigned to particular areas and types of patrol.

It is recognized that the manning of over 600 shifts of overtime activity presents a tremendous logistical problem. However, we would

recommend some consideration of addressing the problems discussed above in the planning of future foot patrol operations.

2.) As indicated above, a substantial change in patrol patterns and philosophy was made in the project in the form of the new deployment implemented May 28, 1973. This revision was made in response to crime statistics for the first three months of 1973 and in order to provide improved targeting on Impact crimes. On September 11, 1973 a request for a second revision of patrol plans was submitted to Region 5. This plan is designed to intensify foot patrol coverage due to an apparent lack of effectiveness in Phase II deployment in comparison to Phase I.

As a result of the actions mentioned above, Phase II of the project will have undergone two major changes in patrol philosophy, manning levels and target areas and hours within eight months. Under these circumstances an adequate evaluation of the patrol concept being utilized may be difficult to achieve. With the emphasis on short term data evaluation and re-targeting, the results of any underlying patrol concept being tested may not be adequately tested.

3.) In response to the question of assumption of financial responsibility for the project, the grant application states that the department will attempt to determine how the foot patrol fits into its regular operations. As it is currently operated, the foot patrol continues to be an "add on" to regular Police Department activity. It is completely separable (budgetarily and operationally) from regular department functions.

Due to its size (approximate annual cost of \$1.5 million) and its nature, the Foot Patrol has assumed the status of a significant activity of the St. Louis Police Department. The LEAA funding provided by Impact funds are by definition available for only a fixed period. Assuming the project provides benefits sufficient to warrant its continuation, some provision should be made for the integration of the program's concept into regular Department operations.

4.) All foot patrol activity data (described in item 2, above) is manually summarized and accumulated from the individual activity reports prepared by each officer. This involves over 600 such reports each week. Since this data is regularly utilized by the project staff in various formats, it might be desirable to consider putting this data on data processing. Once each individual report was entered into some form of data on data processing device, it would be possible to produce summaries on the basis of any number of variables (activity for the week, month, by type of patrol, by individual). In addition to relieving the staff of a considerable clerical burden, the additional flexibility would provide for project management a wider range of analytical data.

5.) In view of the changing manpower deployment of the project it might be necessary to re-evaluate the equipment utilization required. For example, under the current patrol pattern, the maximum daily requirements of radios occurs on Friday and Saturday when 73 radios are needed. (The Monday through Thursday requirement is 52 radios). Due to the different patrol hours involved (one shift from 9 A.M. to 3 P.M., another from 6:30 P.M. to 12:30 A.M.), the maximum number of radios required at any one time is 49. The number of radios purchased and in use is now 87. A reassessment

of total equipment requirements in view of reduced peak manning levels is therefore recommended.

#### FISCAL REVIEW

The field review was conducted on September 11, 1973, and September 12, 1973. Reese Joiner, MLEAC auditor, completed the fiscal segment. His discussions were mainly with Messrs.: Ed Lanwerth, Jack Wilburn, and Captain John Walsh, all members of the St. Louis Police Department.

#### FISCAL FINDINGS AND ANALYSIS

A payroll authorization "by exception" system is employed. This system is not considered appropriate for the payment of LEAA federal grant funds. A procedure should be established whereby staff employees prepare time and attendance reports indicating daily work hours for each pay period. These reports should be signed by the employees and approved by their supervisors.

#### FISCAL APPRAISAL

An effective accounting system is employed. Fiscal and internal controls are utilized that provide for adequate and full accountability of the receipt, expenditure, and use of federal and non-federal program funds.

Expenditures are made and reports prepared in accordance with the rules and regulations of the Federal and State governments.

## RECOMMENDATIONS

1. Patrol manning levels should be returned to a more concentrated level of approximately four patrolmen per Pauly block per watch for at least the first half of Phase III. This will permit more reliable evaluation of the crime reduction capabilities of the patrols.
2. A planning element should be established during the first three months of Phase III to develop and examine alternative plans for the integration of foot patrol activities into Police Department operations and budgeting so that the Department will have a sound basis for a decision regarding whether or not to continue foot patrol at the end of Phase III. The Department may elect to contract with an outside organization (such as the International Association of Chiefs of Police or the Governmental Research Institute) for related consultation and technical assistance.

The planning effort should include the following activities:

- a. Identification of alternative modes of foot patrol operations (such as omni-patrol, burglary teams, etc.) and alternative manning levels.
- b. Review of the use of foot patrols in other cities. (Include travel plans.)
- c. Planning of experimental use of promising patrol modes during the last half of Phase III, using patrol alternatives selected by the planning effort during the first half of Phase III.
- d. Examination of the feasibility of computerizing foot patrol activity data.
- e. Investigation of solutions to the four problems relating to officer selection and assignment listed on page five, number 1, in the "conclusions" section.
- f. Planning relating to a program of public information, to be used if the Department chooses to discontinue foot patrol after Phase III, to explain the discontinuance to the public and to members of the foot patrol project.
- g. Planning for future equipment needs, including reallocation of equipment in case of project reduction or termination after Phase III.

3. Consideration should be given to forming a new Impact project to begin a public education and information service for residential burglary prevention measures.

This suggestion is made with two factors in mind: the apparent effectiveness of foot patrol operations with respect to decreasing residence burglary, and the apparent effectiveness of the target hardening operations of the St. Louis Metropolitan Police Department's Burglary Prevention Unit (for business burglary reduction).

The purpose of the project would be to continue and extend the residential burglary reductions achieved by foot patrol.

4. Due to the relatively small number of target crimes involved and to the apparent ineffectiveness of the night business and residence burglary patrol (6:30 p.m. to 12:30 a.m.) of Phase II-B, these patrols should be reallocated to a different target crime.
5. Evaluation results substantiate the Department's decision to discontinue the shopping center patrols.
6. The selection of Pauly blocks for patrol coverage should be based on total burglary and Index crimes against the person rather than on the subset of these crimes which are classified suppressible. Although foot patrols may be more effective against suppressible crime, the volume of these crimes is very erratic and, therefore seems to be a poor indicator of the need for foot patrol coverage.
7. Based upon the field review and evaluation, it is recommended that the High Impact Foot Patrol be refunded for Phase III as recommended in the High Impact Plan Update with a federal share of \$1,327,937. The evaluation focuses on the need for contingency planning of Foot Patrol services during and beyond the Phase III grant period. The Department should use its planning resources, supplemented if necessary through the Phase III grant, in order to develop contingency plans.



## EXHIBIT I

FOOT PATROL

## Manning Experience

May 28 to August 25, 1973

<u>Type of Patrol</u>	<u>Daytime Residence Burglary</u>	<u>Robbery and Purse Snatching</u>	<u>Nighttime Burglary</u>	<u>Shopping Center</u>	<u>Total</u>
Regular Weekly Complement (# of Shifts)	270	156	156	80	662
# Weeks (5/28 to 8/25)	13	13	13	13	13
Total Shifts For Period	3510	2028	2028	1040	8606
# of Shifts Over or Short For Period	-35	+160	+16	-277	-136
% Over or Short	<u>-1.0%</u>	<u>+7.9%</u>	<u>+0.7%</u>	<u>-26.6%</u>	<u>-1.6%</u>

## EXHIBIT II

FOOT PATROL  
Summary of Activity Statistics  
Under Phase II

	<u>2/27/73 thru 5/29/73</u>	<u>5/30/73 thru 9/10/73</u>	<u>TOTAL</u>
Building Checks	56,096	48,647	104,743
Pedestrian Checks	20,969	24,110	45,079
Business Interviews	27,731	31,896	59,627
Car Checks	14,849	17,141	31,990
Assist Motorists	5,361	10,363	15,724
FIR's	2,356	1,866	4,222
Parking Tags	547	871	1,418
Aided Districts	2,665	2,319	4,984
Peace Disturbances	51	25	76
Investigated Insecure Buildings	132	83	215
Arrests	125	160	285
Curfew Notice Issues	83	16	99
Recovered Stolen Vehicles	33	48	81
Sick Cases	0	0	-
Investigated Sounding Alarms	1	2	3

## EXHIBIT III

## FOOT PATROL ACTIVITY

## COMPARISON OF DEPLOYMENT METHODOLOGIES

February 27 to September 1, 1973

	<u>Initial Deployment</u>	<u>Revised Deployment</u>
Period Covered	2/27/73 to 5/29/73	5/30/73-9/1/73
Number of Weeks	13	14
Number of Patrol Watches per week	755	642
Total Number of Watches during period	9815	8988
Number of Patrol hours per week*	5062	3852
Total Number of Patrol hours during period	65,806	53,928

ACTIVITY REPORTED AND COMPARATIVE RATES

			<u>% Increase or Decrease In Rate</u>
Field Interview Reports			
Number	2356	1661	
Rate per patrol hour	.035	.031	-11%
Arrests			
Number	125	121	
Rate per patrol hour	.00189	.00224	-18%
Stolen Car Recoveries			
Number	33	45	
Rate per patrol hour	.0050	.00083	+66%

\* Based on planned level of manning for both deployment patternsAPPENDIX IEVALUATION OF THE BENEFITS OF THE  
FOOT PATROL PROJECT

The St. Louis Metropolitan Police Department's Foot Patrol Project represents a significant milestone in the continuing effort of law enforcement agencies to improve their capability to reduce crime and to better serve the public. For the first time since foot patrol operations were supplanted by motorized patrols decades ago, a major effort was undertaken to implement and evaluate the effectiveness of concentrated police foot patrols in areas whose emergency service and crime control needs were also being served by motorized patrols.

From the start, the foot patrol operations were well received by both the community and the police officers who manned them. It was felt that a new rapport between police and members of the public was becoming a reality, as officers were no longer isolated by their patrol cars. Improved police-community relations mean greater cooperation from the public in reporting crime and in assisting the police in carrying out their responsibilities.

Fear of crime is a part of everyday life in almost every major city in the country. The effects of this fear are many. Business drops off in neighborhoods where people no longer feel safe. People stay off the streets at night and may feel uncomfortable when walking alone, even during the day. The presence of police officers walking the streets of high crime neighborhoods is a powerful antidote to this fear. People feel safer knowing that help, if needed, is close at hand, and that the potential criminal will have second thoughts about his intended acts when an officer could be standing next to him at any moment.

In conducting its evaluation of the benefits of the Foot Patrol Project, the High Impact Evaluation Unit focussed its efforts on measuring the crime reduction impact of the patrols. First, and foremost, the evaluation sought to determine the extent to which Impact crimes could be prevented by the patrols. Would the patrols reduce crime city-wide? Would the patrols be effective in reducing some types of crime more than others? Would crime reductions in patrolled areas be offset by corresponding increases in the neighboring areas? All these questions were explored. The results of the analyses, based on the project's evaluation component, are given in the following section.

Many of the other benefits of foot patrol, besides crime reduction, were probably achieved by the Foot Patrol Project. Limited evaluation resources and limited time prevented the explicit measurement of the extent to which these other benefits were achieved. In that regard, the evaluation which follows presents only one facet of the many useful products of this project.

# ANALYSIS OF THE CRIME REDUCTION IMPACT OF THE FOOT PATROL PROJECT

Since the start of foot patrol operations on July 1, 1972 the basic mode of deploying the patrols has been altered twice. In the following analysis an attempt has been made to compare the crime reduction impacts of the patrols during each of the three periods when the modes of deployment were relatively constant. In general, two types of comparisons are made for each period. First, to expose trends in crime rates, the number of crimes committed during each period of patrol deployment are compared with the number committed during the same period one year earlier. The result is expressed as a percentage. For example, during the initial phase of patrol deployment Impact crimes decreased city-wide about one percent compared to the number reported during the same period one year earlier. To test the significance of such crime reductions, the number of crimes reported during the period one year prior to the start of the patrols is compared to the number reported during the corresponding period two years prior to the start of the patrols. Figures such as these, for example, show that Impact crimes decreased city-wide about 4.2 percent during the period one year before the start of the patrols, for the same months as those of the initial deployment mode, compared to the corresponding period two years prior to the initial deployment. Since this decrease is larger than that experienced once the patrols began, it is unlikely that the one percent drop observed once the patrols were underway represents a significant crime decrease attributable to the patrols.

The second type of comparison made relates trends in crime in patrolled areas to city-wide trends for the same time periods. Thus if crime increases city-wide by 10 percent during a given period, but increases only one percent in the patrolled areas during the same period, this may indicate that the patrols are in fact succeeding (by keeping crime increases to lower levels). The results of these comparisons are also expressed as percentages, which may be interpreted as rates of change in the patrolled areas compared to those experienced city-wide. For the figures just cited (+10% city-wide, +1% for patrolled areas), for example, the percentage computed for the patrolled areas compared to city-wide is -8.2 (i.e., relative to the city-wide increase, the crime trend in the patrol areas has decreased by 8.2 percent). The same procedure is used to test the significance of these percentages as was described above for the first type of comparison, namely the use of the corresponding percentage computed for the same time periods one and two years prior to the start of the patrols.

The three time periods under study, and the attributes of patrol operations during these periods are summarized in the following table.

Foot Patrol Dates

One year earlier

Two years earlier

Blocks patrolled

Peripheral blocks

Patrol hours per week (patrolmen only, not including shopping patrols).

Average foot patrol manhours per Pauly block per day

Average car patrol manhours per Pauly block per day

Foot patrol arrests per week per 100 patrol hours

Car patrol arrests per week per 100 patrol hours

PATROL PERIOD		
I	II-A	II-B
7-1-72 to 2-14-73	2-15-73 to 5-26-73	5-27-73 to 9-1-73
7-1-71 to 2-14-72	2-15-72 to 5-26-72	5-27-72 to 9-1-72
7-1-70 to 2-14-71	2-15-71 to 5-26-71	5-27-71 to 9-1-71
6	20	22
28	67	190
1240	2480 <sup>1</sup>	2808
29.4	17.7 <sup>2</sup>	14.9
-	-	3.04 <sup>4</sup>
0.31	0.36 <sup>3</sup>	0.35
-	-	1.2 <sup>4</sup>

<sup>1</sup> 1260 omni-patrol hours per week are excluded

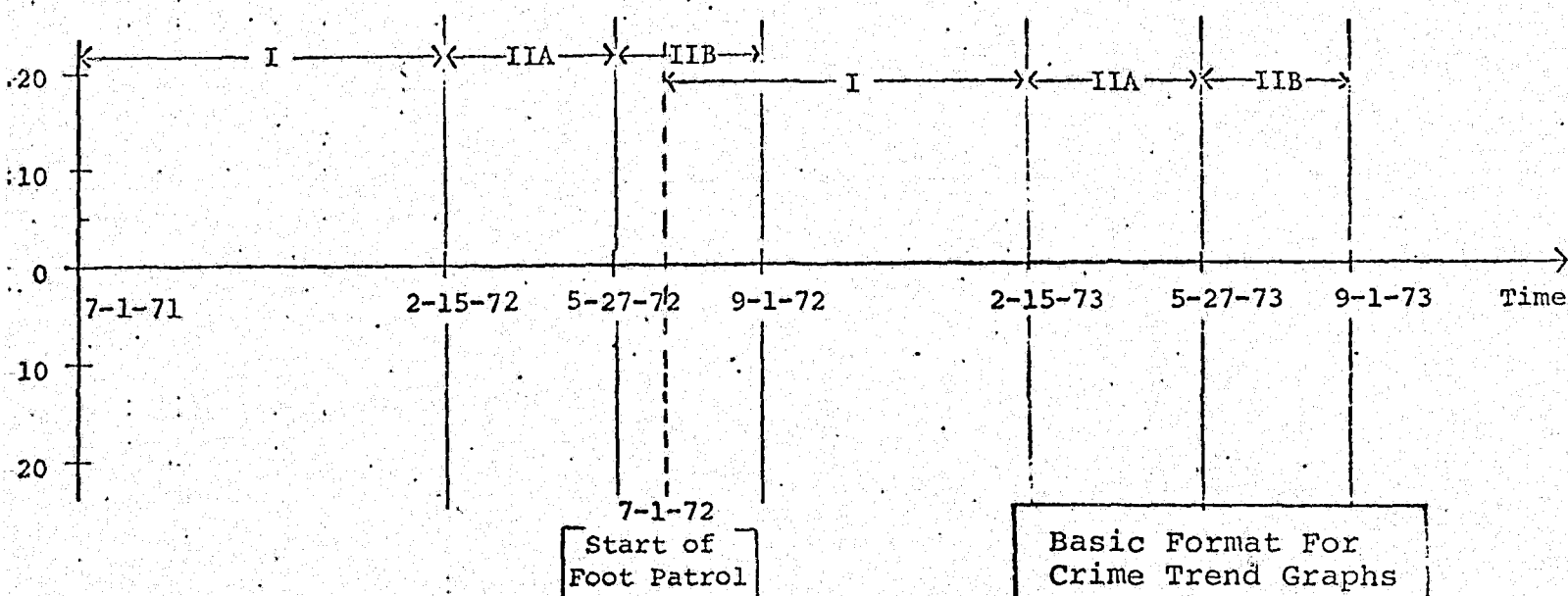
<sup>2</sup> Omni-patrol hours are excluded

<sup>3</sup> Based on 2480 patrol hours. If the 1260 omni-patrol hours per week were included, the arrest figure would be 0.23

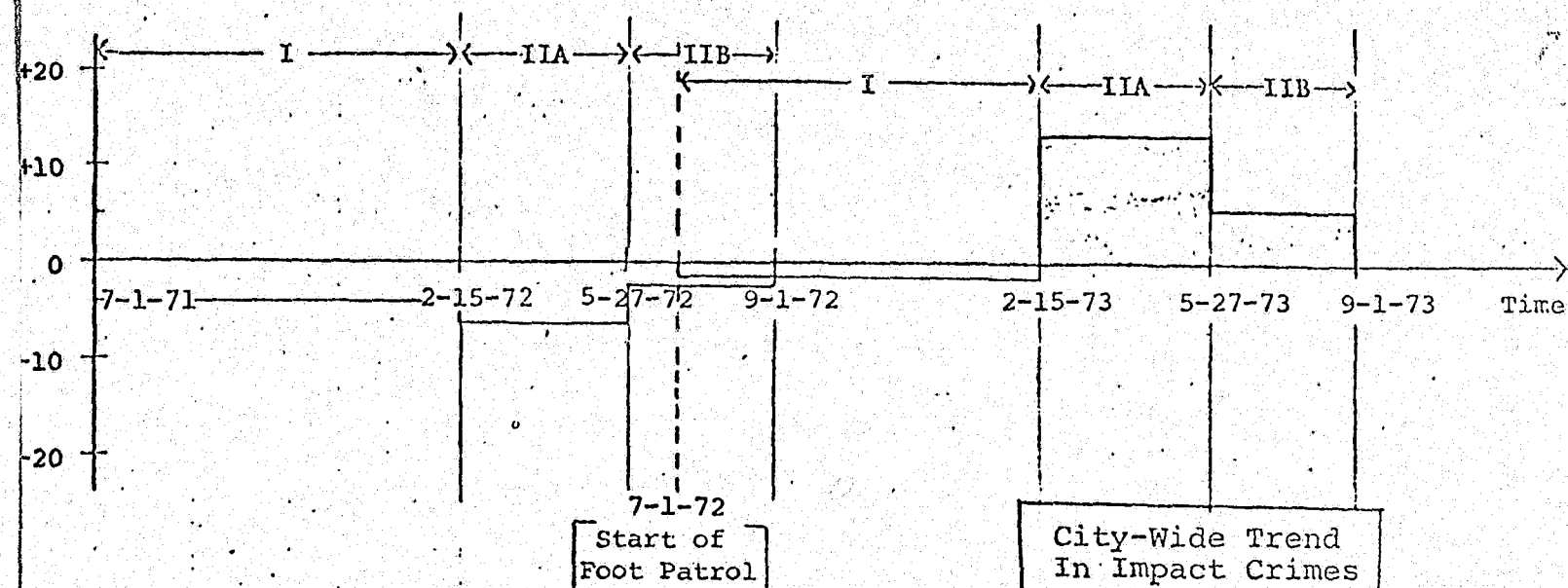
<sup>4</sup> An approximation based on an assumed four ninths of the 24-hour day car patrol manpower total being deployed during the hours of foot patrol operation.



The format of the graph used to compare crime trends from period to period is given below. The three periods of interest are indicated both for the months following the start of the foot patrol operations and for the corresponding months one year prior to each patrol period. The vertical axis indicates rates of change, in percentage points, for each period compared to the same period one year earlier. It is important to recognize that this type of graph does not show the number of crimes experienced in any given period, it shows only how this number compares with the number for the corresponding period one year earlier.

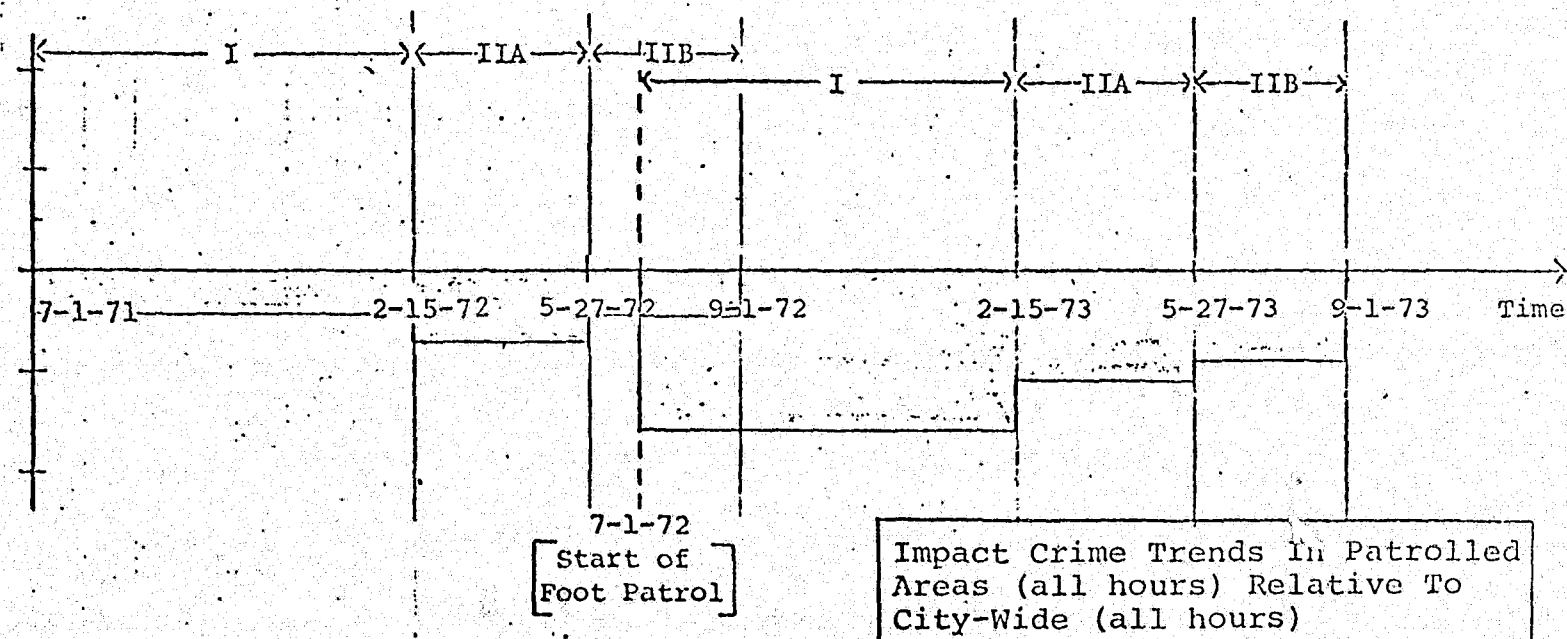


# 1. City-wide trend in Impact crimes -



Interpretation: Using the sum of Part I person crimes and burglary as a surrogate for Impact crimes, the generally decreasing rate of crime which preceded the start of the foot patrol reversed to a generally increasing rate of crime. If the period preceding the start of the patrol included unusually large crime decreases, then the increases later experienced may be in part due to a return to more average crime rates.

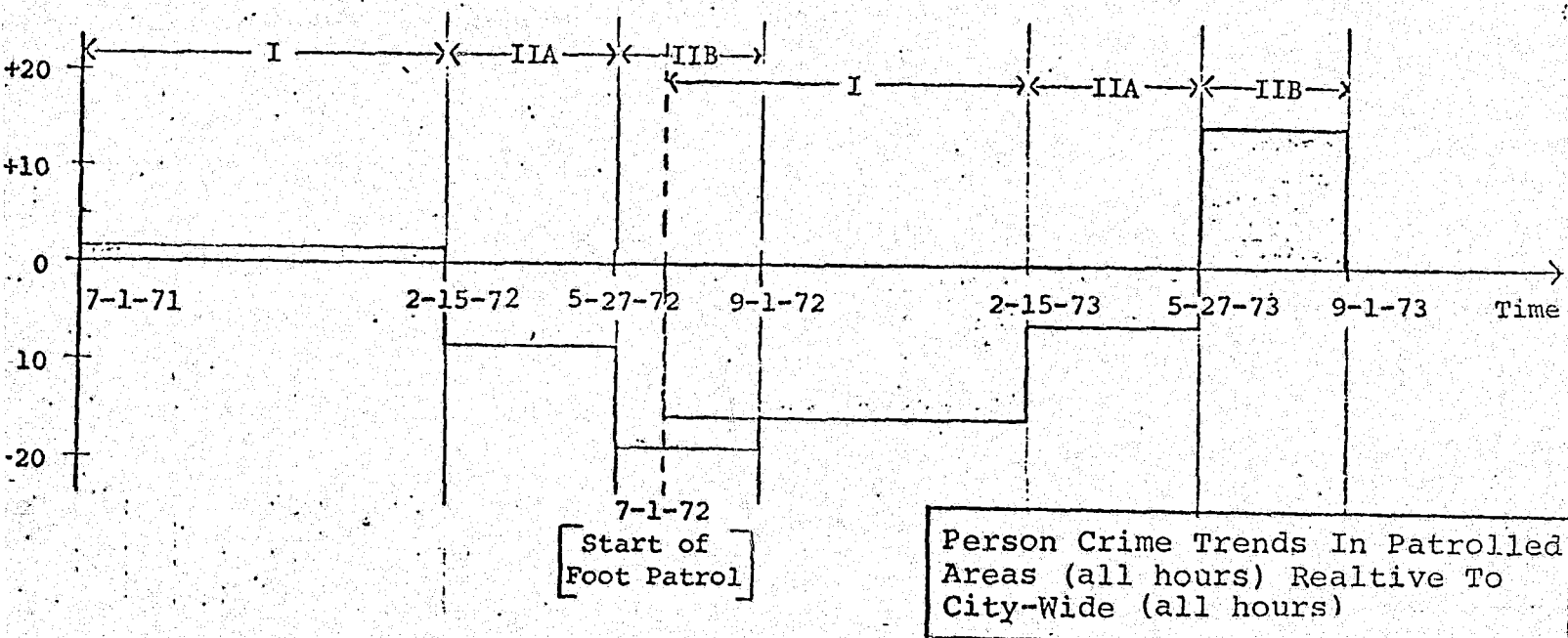
# 2. Impact crime trends in the patrolled areas relative to city-wide (all hours)-



Interpretation: When the Impact crime trends in the patrolled areas of the city are computed relative to the city-wide trend in Impact crimes, a generally decreasing trend prior to the implementation of the foot patrol accelerated to a relatively steeper decrease after the start of the patrols. During the three periods under study Impact crimes in patrol areas decreased at rates from one to fifteen percent faster than the city-wide trends. (These figures relate to 24-hour days, that is, they include both patrolled and unpatrolled hours of the day).

### 3. Looking at effects on person crimes and then on burglary -

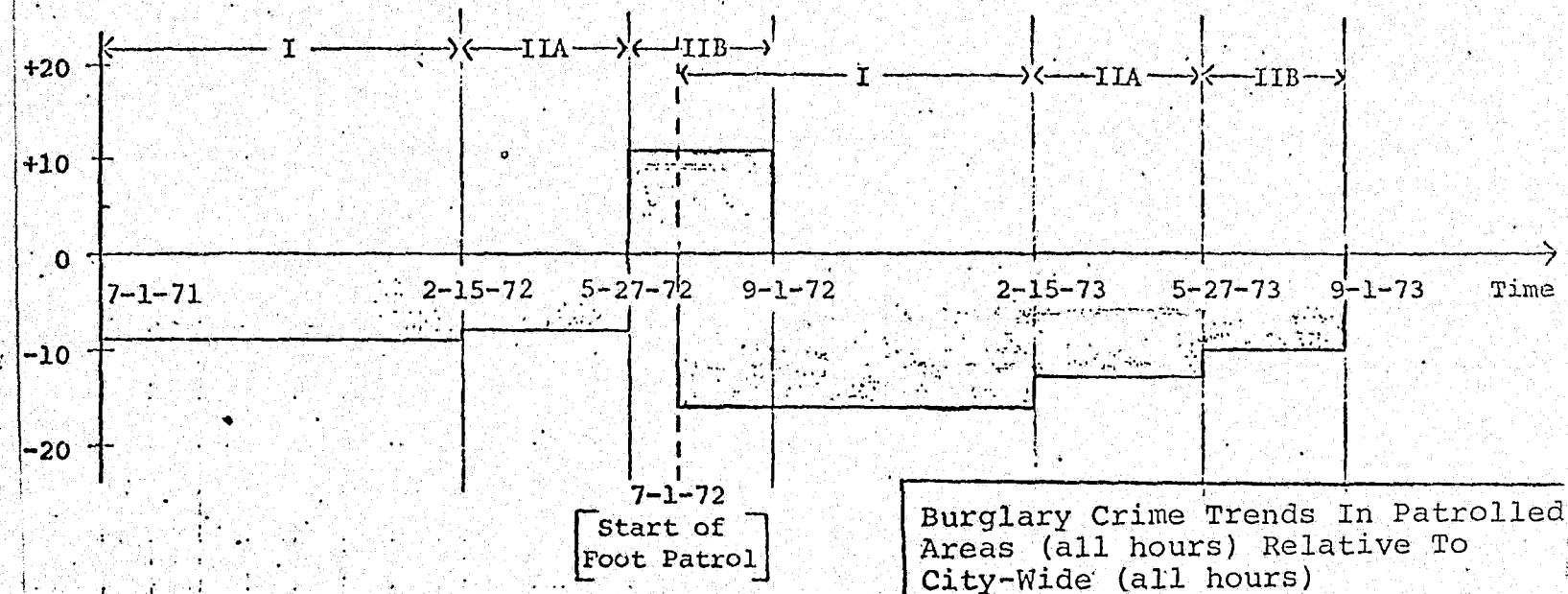
#### a. Person crime trends in patrolled areas relative to city-wide (all hours)



Interpretation: Crimes against the person in the patrolled areas, compared to city-wide trends for person crimes, dropped sharply in the months preceding the start of the foot patrol. During Phase I of the patrol operations person crimes continued to drop faster in the patrolled areas (by about 15.5 percent) than city-wide. Phase I, which consisted of patrols concentrated in six Pauly blocks, was then replaced by Phase II operations which diffused patrols over a significantly larger proportion of the city. During II-A person crimes dropped 6 percent faster in patrolled areas than city-wide; during II-B they increased faster than city-wide. If the more

concentrated operations of Phase I produced its person crime reductions, then the effectiveness decrease during Phase II may be due in part to the less concentrated deployment of this period. (These figures also relate to 24-hour days).

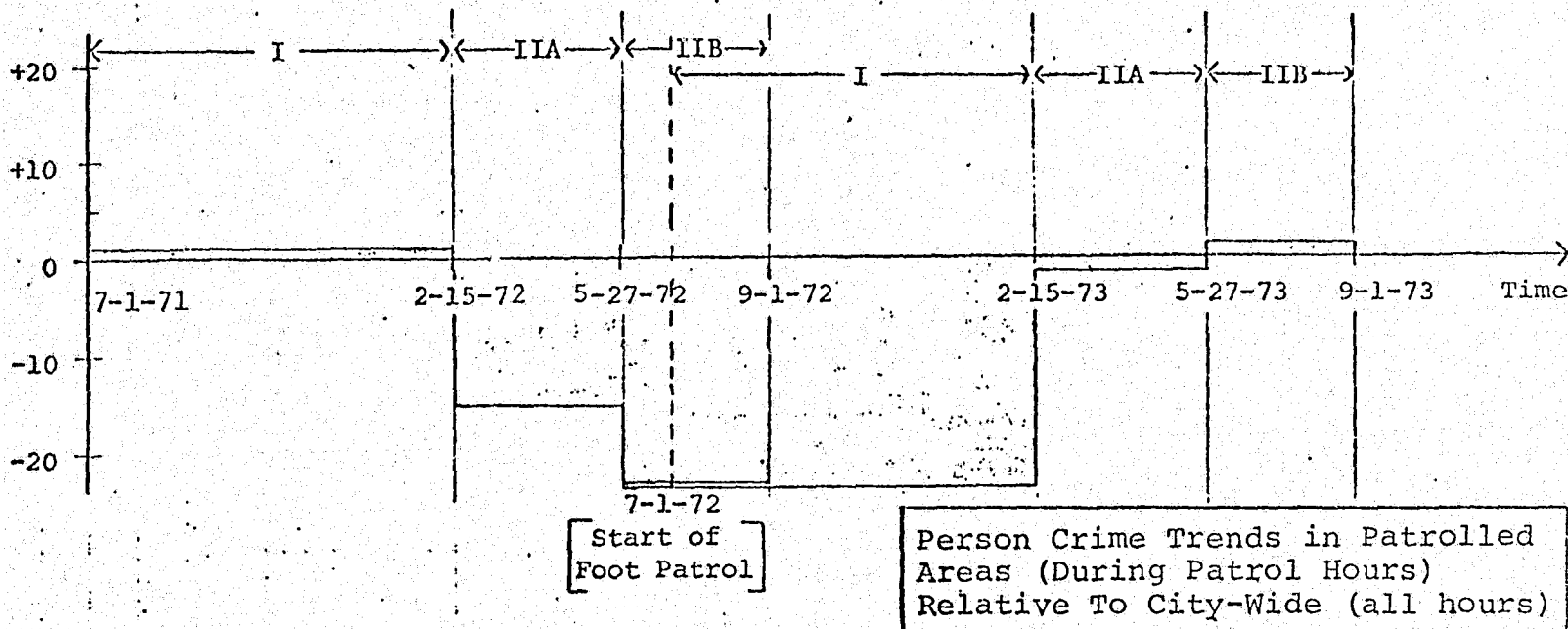
#### b. Burglary crime trends in patrolled areas relative to city-wide



Interpretation: For the patrolled areas burglary had been decreasing faster than the city-wide burglary rate prior to the start of the foot patrols, but in the months immediately prior to the start of the patrols burglary spurted up in the patrol areas relative to city-wide. This trend reversed with the start of the patrols, with burglary dropping about 10 to 17 percent faster in patrol areas than city-wide for both Phase I and II. Since the number of burglaries generally exceeds the number of person crimes in the city by a factor of two to one or more, the burglary reductions during patrol operations appear more significant than the effects of person crimes (particularly during Phase II).

4. Are crime reductions greater during patrol hours?

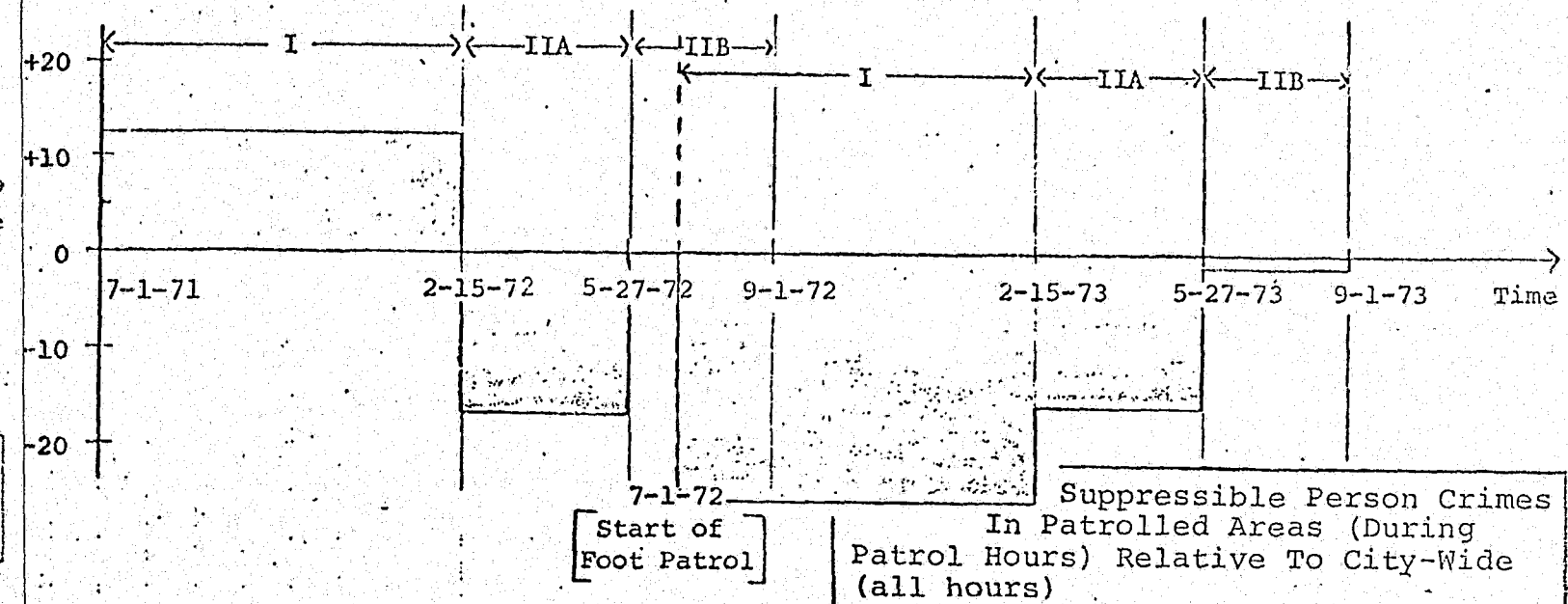
a. Person crimes in patrolled areas during patrol hours compared to person crimes city-wide for all hours



Interpretation: This chart should be compared with the one given in 3a for person crimes in patrolled areas (all hours) compared to person crimes city-wide (all hours). The two charts are quite similar. During Phase I person crimes dropped 24 percent in the patrolled areas during patrolled hours, compared to city-wide. This represented a greater drop than the 15.5 percent decrease computed when all hours are used for the patrolled areas. After Phase I, however, when the patrol deployment switched to a less geographically concentrated operation, the patrolled areas showed virtually no decrease in person crimes during patrolled hours compared to city-wide (all hours). In fact, during the periods one year prior to II-A and II-B when no patrols existed the experi-

mental area showed fairly substantial decreases during "patrol" hours compared to city-wide (all hours) due apparently to the random fluctuation of crime rates.

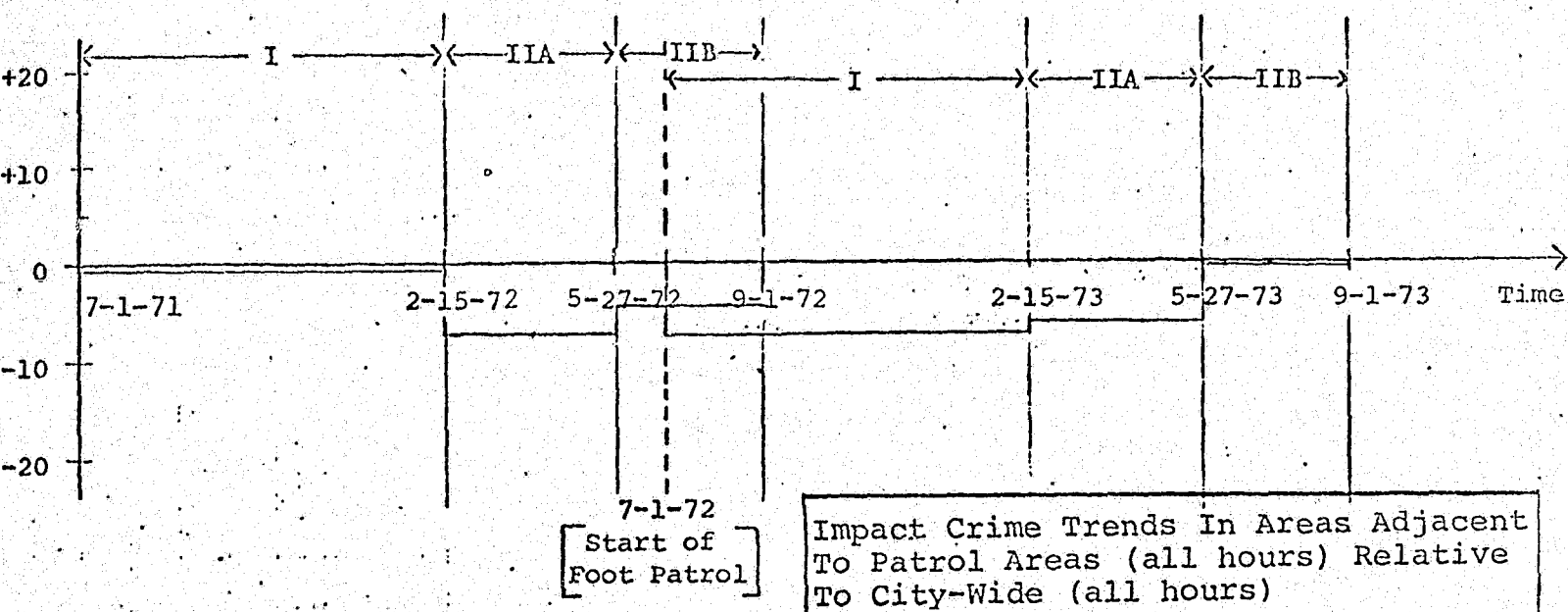
b. Are suppressible person crimes reduced more by patrols than person crimes in general?



Interpretation: Suppressible crimes are those which occur in places visible to officers on routine patrol. They are considered more susceptible to reduction by patrol activities. Data for suppressible person crimes is available for periods I, II-A, and II-B (except for the period from 5-27 to 9-1-72), for patrolled hours in patrolled areas compared to city-wide (all hours). The data indicate no clear evidence of a greater impact by patrols on suppressible person crimes than person crimes in general. Since suppressible person crimes are fewer in number they exhibit more random fluctuation, as seen in the variations from +14 to -14 percent prior to the start of the patrols. Additionally, the relative reductions experienced once patrols started are not greater than those for person crimes in general, except for II-A.



5. Are patrols displacing crime from patrolled areas to neighboring areas (considering person crimes and burglary)?



**Interpretation:** The above chart presents total person crime and burglary in areas adjacent to patrolled areas (all hours) compared to city-wide totals (all hours). Since the deployment plans differed for the three time periods under study, the peripheral, or adjacent areas differed as well. These differences make direct comparisons difficult, however, as the chart indicates, no significant crime increases were experienced in these areas after the start of the patrols.

6. Are foot patrols displacing crimes against the person in patrolled areas from patrol hours to other times of day?

Crime data for period II-B permits a direct comparison of person crime trends in the patrolled areas during patrol hours with the corresponding figures for all non-patrol hours. In the following table the percentage changes in person crime during period II-B, compared to the same period one year earlier, and relative to the city-wide rates of change in person crime, are given for patrol hours, non-patrol hours, and all hours. Percentages for Index crimes against the person and for suppressible crimes against the person are given separately.

Person  
Crimes

Suppressible  
Person Crimes

	Patrol hours	Non-Patrol hours	All hours
Person Crimes	+1.3	+20.9	+15.2
Suppressible Person Crimes	-1.1	+29.2	+19.0

**Interpretation:** While Index crimes against the person for all hours rose 15.2 percent relative to the city-wide rate, the increase appears to have occurred principally during non-patrol hours (when the corresponding increase was 20.9 percent; for patrol hours the increase was only 1.3 percent). Looking at suppressible Index crimes against the person indicates a similar result: the all hours increase, relative to the city-wide rate, was 19 percent, but during patrol hours a slight decrease was measured (-1.1 percent); during non-patrol hours an increase of 29.2 percent was registered. Although these figures are not conclusive, they do suggest that foot patrols provide their maximum deterrent capability during patrol hours, and that the effect may not carry over to hours of the day when no patrols are on duty.

#### 7. Patrol specialization (Phase II-B)

Foot patrol operations during the period 5-28-73 to 8-31-73 were aimed at reducing specific types of Impact crimes. The day residence burglary patrol operated from 9:00 a.m. to 3:00 p.m.; the robbery-purse snatching patrol from 4 p.m. to 10 p.m.; and the night business and residence burglary patrol from 6:30 p.m. to 12:30 a.m.. All three types of patrol operated Monday through Saturday in Pauly blocks where the specific target crimes were thought to be most likely to occur.

The following results represent percentage changes in the target crimes for the time period from June 1 to August 31, comparing 1973 data to 1972 and 1972 to 1971. The figures given represent a comparison of crime in patrolled areas during patrol hours relative to the city-wide crime rate (all hours).

1973/1972

1972/1971

	Day Residence Burglary	Robbery-Purse Snatching	Night Residence and Business Burglary
1973/1972	-35.5	+9.6	+58.2
1972/1971	+14.6	+7.5	-9.3

8. Shopping area patrols (periods II-A and II-B)

During phase II 24 shopping areas in the city were selected for periodic patrol by Foot Patrol officers. Each area was patrolled for one six-hour period every two weeks, either on a Friday or Saturday evening (from 4 to 10 p.m.). During the patrol hours a total of 34 officers were assigned to the shopping area (in four teams of eight to nine officers each) with four areas being patrolled on any given patrol night. Impact crime rates in the patrolled shopping areas (during patrol hours) for the period from February 17, 1973 (when these patrols began) to August 31, 1973, relative to the city-wide rate (for all hours), compared to the same period one year earlier, indicate a 41.0 percent increase. Making the same comparison for crime rates one year earlier compared to the same period two years earlier shows a relative decrease of 22.7 percent. It is quite likely that random fluctuations in the shopping area crime rates, and the fairly infrequent coverage of each area patrolled, can explain the apparent increase in Impact crimes after the patrols began. It is possible, of course, that the presence of the officers resulted in more crimes being reported to the police, but no evidence is available to prove or disprove this possibility.

Factors which may affect sections of the above analysis:

(1) The three time periods under study differed in length. Therefore, a comparison of performance in Phase I with that of II-A, for example, implies comparison of a seven and a half month period to a three and a half month period. All other factors being equal, one would expect more reliable evaluation results from period I, since it was the longest period.

(2) A different set of Pauly blocks, each set consisting of a different number of blocks, was patrolled during each patrol period (I, II-A, II-B). All other factors being equal, one would expect more reliable evaluation results from II-A and II-B, since these periods involved patrol of larger numbers of blocks.

(3) When Pauly blocks are selected for patrol because they have had the highest Impact crime rates for a specified period of time, the likelihood that these crime rates will remain the highest (or even remain at their current level) is rather small due to a tendency for the rates to return to a more normal level for those blocks (i.e., there can be a built-in tendency for crime decrease in the patrolled blocks; this phenomenon is called "regression artifacts").

(4) "Random" fluctuations in crime trends shown in the preceding charts may have inflated or masked the actual results, particularly if the actual crime reduction impacts are small. Numerous circumstances may contribute to these random fluctuations. For example, a large concentration of Operation Ident participants in a foot patrol area could contribute to a burglary reduction.

(5) The statistics used in this analysis are based on crimes reported to the St. Louis Metropolitan Police Department. It has been necessary to assume that the crime reporting rate has remained constant for the different time periods and areas of the city under the study.

(7) Since no data on stranger-to-stranger street crimes could be obtained from the computerized crime data base, Index crimes against the person have been used as a surrogate for this category.

Postscript

Data for this analysis were compiled from records kept by the Foot Patrol Project staff and other units of the St. Louis Metropolitan Police Department, and from the monthly crime tapes prepared by the police computer center. The High Impact Evaluation Unit would like to acknowledge the assistance of the Police Department's Impact Evaluation Unit, and the staff of the Foot Patrol Project in preparing parts of this evaluation. Computer programs used to analyze the crime data were written by the High Impact Evaluation Unit and run on the REJIS computer system.

**END**