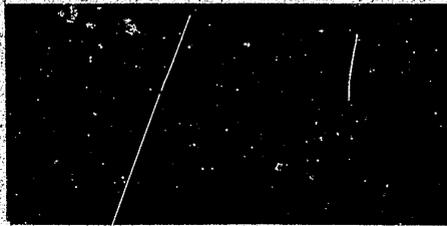


# King County



DEPARTMENT OF  
BUDGET AND PROGRAM PLANNING

43530



Bellevue Citizen Involvement  
in Burglary Prevention  
Grant #75-C-0025

Evaluation Report

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King County  
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Prepared by Anthony C. Mulberg with assistance by Shelley Wein.

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BELLEVUE CITIZEN INVOLVEMENT IN BURGLARY PREVENTION,  
GRANT EVALUATION

I. Introduction

A. Background

The concept of citizen involvement in burglary prevention has received increased attention from the law enforcement community over the past few years. In response to the increasing frequency of reported residential burglary, and the apparent amenability of burglary to prevention techniques, numerous burglary prevention programs involving citizens have been organized and implemented.

These burglary prevention programs have emphasized neighborhood meetings at which law enforcement or civilian crime prevention personnel discuss: (1) the specific neighborhood's burglary problem, (2) the concept of neighborhood block-watch, (3) the importance of marking personal property for positive identification, and (4) the use of proper security devices within the home.

The City of Bellevue having realized a need for a burglary prevention program applied for Law Enforcement Assistance Administration (LEAA) funds to implement a prevention program. The project was approved by the Governor's Committee on Law and Justice, and the State Office of Community Development (i.e. Law and Justice Planning Office) awarded the contract. The first year grant covered the time period of May, 1974 through April 1975.

Bellevue implemented the program in May 1974 in two matched areas of the City. One area was designated as a target area, while the other area was designated a comparison or control area. The target area received extensive burglary prevention services, including police sponsored neighborhood meetings on crime prevention, block-watch organization, access to engravers for marking personal property, and home security checks by the police. The comparison area received virtually none of the treatments.

Near the end of the project's first year of operation, a second grant application requesting funds to expand the burglary prevention program city-wide was submitted and approved. Beginning May 1, 1975, a greater emphasis was placed on involving as many citizens in the program as possible. This was to be accomplished through a mass media campaign and lectures at civic meetings. Door-to-door campaigning was paramount to the program's success and was instituted initially in the high crime areas of Bellevue (identified as Ardmore and Enatai).

The second year of the burglary prevention project grant concluded April 31, 1976. This evaluation report reflects the findings of the second year evaluation (May 1, 1975 through April 31, 1976) conducted by the King County Law and Justice Planning Office. Third year continuation funding was not requested by the City of Bellevue. The Bellevue Police Department, however, did institute a team



policing project which continued the prevention program as part of the team policing strategy.

B. Program description

The grant provided funds for among other things, one administrative assistant. The job tasks for this position included coordinating, scheduling, and conducting meetings with various units of the Police Department involved with the program. The Deputy Chief of Police (not paid by the grant) served as the project director.

The grant also provided funds for overtime pay for those officers which would be involved in the prevention program presentations. By paying off duty officers overtime pay, the regular on-duty officers were able to concentrate on their regular duties "on the street."

Grant funds were also provided for data processing to maintain project statistics, office supplies, printed handout materials, in-house printing, engravers, and media publicity.

The goals of the Bellevue burglary prevention program were to: (1) bring to the attention of the public the seriousness of the city's burglary problem, (2) inform the public of burglary prevention measures, and (3) encourage the public to institute the recommended burglary prevention safeguards. The ultimate goal of the project was, of course, a

reduction in reported residential burglary.

The project components are described below:

1. Public education campaign

The public education campaign was intended to bring to the attention of Bellevue citizens, through local media coverage and civic meetings, the seriousness of the City's burglary problem, and the prevention measures available to them. Newspapers and radio stations responded very favorably to the project director's requests for project publicity. Numerous civic meetings were scheduled and conducted with burglary prevention the main topic of discussion.

Project personnel also prepared a monthly newsletter called the "Crime Alert." This newsletter indicated the number of residential burglaries reported each month, as well as descriptive data regarding the reported residential burglaries each month. The descriptive data included information on whether the burglaries were by forced or non-forced entry, the point of entry, and the value of the property stolen. The newsletter also noted some "no cost/common sense prevention techniques" such as locking doors and windows, especially when away from home. The "Crime Alert" bulletin was sent each month to the block-watch captains (the neighborhood leader for a blockwatch) for dispersment to block-watch members, and copies

were also left at neighborhood supermarkets.

2. Door-to-door campaign:

The door-to-door campaign was of primary importance in encouraging citizen participation and therefore any success in the burglary prevention program. Homes in specific areas of Bellevue were contacted by an intern (a college student), a citizen volunteer, or a Police Officer; residents were then informed of the burglary prevention program. Each citizen contacted was encouraged to host or attend a neighborhood meeting at which the three following burglary prevention activities were to be discussed:

a. Block-watch

The block watch involved neighbors watching each others homes for unusual or suspicious looking people or circumstances. If unfamiliar cars were seen, the citizen was encouraged to write down the make and model, as well as the car license number. The physical characteristics of suspicious looking persons were also to be jotted down. The citizens observing these things were then advised to contact the Police and report their observations.

b. Property marking

At the neighborhood meetings property engravers were made available to citizens for marking valuable household items. Each citizen was encouraged to engrave personal property with their drivers license number for easy identification. Each citizen

using an engraver also received decals, to be placed in a conspicuous place at their residence (e.g. a window or door). The decals indicated that all personal property in the residence had been engraved.

c. Home security inspections

Each citizen was informed about proper home security devices, such as locks and alarm systems. Citizens were encouraged to lock windows and doors at all times, and were offered courtesy home security inspections by police officers.

All neighborhood meetings were conducted by either a Bellevue Police Officer or the project Administrative Assistant. In both cases, the individual conducting the meeting had been trained in burglary prevention home security techniques. Citizens were also shown a film on burglary and were provided with literature on burglary prevention.

C. Purpose of the study

The purposes of this evaluation were three-fold:

1. Describe the nature of reported residential burglary in Bellevue.
2. Document the extent of citizen participation in the burglary prevention program.
3. Evaluate the impact of the program on burglary rates for (a) the total population of Bellevue, and (b) selected high burglary areas (Ardmore and Enatai).

D. Limitations of the scope of this report:

There are several limitations on the scope of this study which must be considered when reviewing the findings.

1. Weak research design

A before/after design and a non-equivalent control group design were used in this study. As with all quasi-experimental research designs, internal and external validity factors undermine the ability to directly attribute any decline in reported residential burglary to the program activities alone. Some of the validity problems with the pre/post and non-equivalent control group designs include self-selection bias, multiple treatment effects, and statistical regression. These questions of validity must be considered when interpreting findings regarding program success.

2. Reported versus unreported crime

A continual problem with crime statistics is that not all crimes are reported to the police. As has been documented in numerous victimization studies, large numbers of crimes go unreported to the police<sup>1</sup>. A victimization study completed by the City of Seattle found a burglary reporting rate of only 46%. This means that almost half of the burglaries in Seattle went unreported to the police. Accordingly, crime statistics used by evaluators may be incomplete.

<sup>1</sup> Salmon, D.C. Study of Public Opinion and Criminal Victimization in Seattle, City of Seattle Law and Justice Planning Office, 1973  
Sorenson, Anne D. Evaluation of the Portland Neighborhood Based Anti-Burglary Program, Oregon Research Institute, March 1974.

One element further complicating the validity of reported crime rates is that those participating in program treatments may be more inclined, as a result of the program, to report crimes to the police. An increase in the number of reported residential burglaries after program implementation may reflect an increased tendency to report burglaries to the police, not an increase in the actual number of burglaries (or a combination of the two). Unless a victimization survey is conducted, it is impossible to determine whether an increase in the number of burglaries is attributable to increased reporting or an increase in actual burglaries.

Seattle's Law and Justice Planning Office with grant funds from the State Law and Justice Planning Office conducted Bellevue's first-year "Citizen Involvement in Burglary Prevention" victimization study of Bellevue's crime reporting rates. Unfortunately, errors in coding of survey data occurred and actual crime rates still remain unknown. (It is anticipated that the results of the Bellevue victimization study will become available within the next few months.)

3. Insufficient follow-up time

In this study, the time periods of one year prior to the project starting date, and one year after the program starting date were used. This allowed for only a one-year follow-up of the "treatment" area. Also, not all treatment areas received treatment during the first

months of the project, i.e. some treatment areas did not receive treatment until late in the project year. Actual program effects on participants with minimal follow-up time may not become apparent until several months from now.

For example, one large area of Bellevue (Woodridge) did receive an intensive door-to-door campaign, but it was not begun until December 1975. While numerous citizens in the Woodridge area had been exposed to the prevention measures, including block-watches, property marking, and home security inspections by April 31, 1976, not enough follow-up time had passed to include this area in the treatment group.

4. The number of prevention program participants were slightly underestimated

The number of burglary prevention program participants were slightly underestimated. For example, not all citizens who attended a neighborhood meeting signed the attendance sheet. In addition, citizens who did not attend a neighborhood burglary prevention meeting could still participate in a block-watch after receiving a block-watch briefing from a participating neighbor. As a third example, some project records were not maintained consistently during the project period. As a result, the actual number of prevention program participants could not be fully documented.

## 5. Small numbers

While the sample areas of Ardmore and Enatai represented 6.2% of the Bellevue population and reported 8.1% of the residential burglaries in the pre-period, the actual number of reported residential burglaries in these two areas is very small. Besides the small numbers leaving little room for improvement (i.e., there is little room for improvement at ten burglaries per month) or being subject to minor changes in the activities of burglars, small numbers are easily influenced when converted to percentages or subjected to statistical analyses. The numbers involved in these two areas then may be too small to allow firm conclusions about the effect of the program.

## II. Methodology

### A. Research design

As noted in section I-D, two quasi-experimental designs were used in this evaluation. The pre/post test design was used to evaluate the impact of the prevention program on a city-wide basis, while the non-equivalent control group design was used to evaluate the effectiveness of the program elements for participant neighborhoods versus non-participant neighborhoods<sup>2</sup>. The reader should again note

<sup>2</sup>The terms participant and non-participant were used relatively in this report. Participant areas were defined as those areas in which: (1) an intensive door-to-door campaign was done by the prevention program staff, and (2) a large number of households in the respective area participated in one or more of the prevention program elements. Conversely, a non-participant area was defined as an area in which: (1) minimal or no door-to-door campaigning was done by the prevention program staff, and (2) minimal or no households in the respective area participated in the prevention program elements.



the internal and external validity problems with these two evaluation designs (see section I-D).

B. Data collection and analysis

Primary data sources for the evaluation consisted of Bellevue Police Department records, and burglary project records.

The main police department record used was the daily log. This log provided information on the locations of burglaries, the dates and times of the reported burglaries, the patrol districts where the burglaries occurred, and other similar information. The burglary project records included names and addresses of citizens who: (1) were contacted by the door-to-door campaigners, (2) attended a neighborhood or civic meeting on burglary prevention, (3) participated in a block-watch, (4) used property engravers, and (5) requested residence security inspections. As noted earlier, the project records were not complete.

The descriptive data in this report are the same as those included in the King County Law and Justice Plan for 1977. The descriptive data were generated from burglary project records for the month of December 1975.

Other information sources included the Bellevue Planning and Parks Department, the Washington State Report on Population Trends, and the quarterly Bellevue Citizen Involvement in Burglary Prevention Project Progress Reports.

Data analyses consisted of frequencies and percentages for the most part, with regression discontinuity analysis and t-test for significance being used when appropriate data requirements and assumptions were met. A statistical significance level of .05 was used for all tests of significance.

C. Impact objective

The originally stated project goal was "...to reduce the numbers of reported residential burglary by 15%..." For the purpose of this evaluation the original project goal was refined and restated as the following objective:

Given the operation of the residential burglary prevention program in Bellevue a statistically significant decrease will be documented when the numbers of residential burglaries before the program is compared to the number of residential burglaries after program initiation.

III. Findings

A. General burglary characteristics

General reported residential burglary data dating back to 1972 were collected and are presented in Table 1. The estimated reported residential burglary figure for 1976 was projected from the corresponding figures for the first four months of 1976.

Residential burglary in the last five years has accounted for an average of approximately 61% of the reported burglaries in Bellevue. In 1972 there were 410 reported residential burglaries. The number of reported residential burglaries hit 924 in 1975, an

increase of 103% over the 1972 figure. The estimated 1976 figure indicates a decrease to 741 reported residential burglaries, representing a decrease of 11% from 1975.<sup>1</sup>

In 1972 the estimated reported residential burglary rate per 100 households for Bellevue was 1.85. The highest residential burglary rate per 100 households was for the year 1975 at 3.34. The projected 1976 rate is 2.76 reported residential burglaries per 100 households.

Reported residential burglary rates (per 1,000 population) were also generated for the years between 1972 and 1976.

In 1972, the number of reported residential burglaries per 1,000 population was 6.58; in 1973 the rate increased to 9.54; and in 1974 the rate increased to 11.92 reported residential burglaries per 1,000 population. The rate increased again in 1975 to 12.64. The projected reported residential burglary rate for 1976 is down from both the 1974 and 1975 figures at 10.36 reported residential burglaries per 1,000 population.

1. *Since the time of the original estimate, a fifth and sixth month of data have become available. A prediction of the number of reported residential burglaries based upon six months of data now indicates 722 residential burglaries, which is lower than the four-month estimate.*

TABLE 1

Bellevue Total Residential Burglary 1972-1976

	1972	1973	% chg	1974	% chg	1975	% chg	1976 (est)	% chg
Total Burg.	734	895	22%	1,310	46%	1,339	2%	1,215	-9%
Res. Burg.	410	601	47%	762	27%	834	9%	741	-11%
Pop. <sup>1</sup>	62,343	63,000	1%	63,940	2%	66,000	3%	68,209	3%
# per hslld <sup>2</sup>	2.818	2.840		2.740		2.641		2.540	
# of hsllds <sup>3</sup>	22,123	22,183		23,336		24,990		26,854	
burgs/ 1000 pop <sup>4</sup>	6.58	9.54	45%	11.92	25%	12.64	6%	10.86	-14%
burg/ 100 Hslld <sup>5</sup>	1.85	2.71		3.26		3.34		2.76	

<sup>1</sup>The Washington State report on population trends; the 1975 Bellevue Police Department, Annual Report.

<sup>2</sup>The Washington State Report on Population Trends.

<sup>3</sup>Population for Year  
Est. number per household = number of households

<sup>4</sup>Number of burglaries for year  
Population, same year X 1000 = rate per 1000 population

<sup>5</sup>Number of burglaries for year  
Number of households, same year X 100 = rate per 100 households

B. Specific burglary characteristics

Specific burglary characteristics were generated through the Bellevue Police reports for the month of December 1975. These data are the same as those included in the King County Law and Justice Plan for 1977. The sample consisted of 69 residential burglary reports (except time of day data which came from 1975 burglary project records). The data indicated the following specific characteristics of residential burglaries in Bellevue:

1. Day of week, N=47

For the sample months of December 1975, Monday was the most likely day of the week for a burglary to occur (27.7%), followed by Wednesday (23.4%) and Tuesday (19.1%). The least likely days of the week for a residential burglary to occur appeared to be Sunday (2.1%) or a Friday (4.3%).

2. Time of day N=849

The time of day for all reported residential burglaries in 1975 indicated that 412 (48.53%) occurred during the day, while 437 (51.47%) occurred during the night.

3. Method/point of entry, N=46 (forced or non-forced, the criterion being whether a door, window, etc. was pried or broken open; entering through an unlocked door or window is classified as an unforced entry).

Forced entries accounted for 31 (67.39%) of the residential burglaries for the month of December 1975. Of these 31 reported residential burglaries, 16(51.61%) involved windows, 12(38.71%) involved doors, and 3(9.68%) involved some other point of entry. Non-forced entries accounted for 15(32.61%) of the residential burglaries for December. Of these 15 non-forced 8(53.33%) involved doors, 3(20%) involved windows, and 4(26.67% involved some other point of entry. From these data, it appears that one-third of the burglars gained entry to a residence through unlocked doors or windows.

4. Cash value of stolen property, N=44

The range, mean and median cash value of property stolen in residential burglaries committed during December 1975 were as follows:

- a. mean dollar value - \$509
- b. median dollar value - \$212

c. range - \$9 - \$2,522

5. Type of property stolen N=44

The most common items stolen in residential burglaries during December 1975 were home entertainment items (e.g. stereos, televisions, radios etc.) and small office equipment (e.g. calculators). These items were stolen in 19 of 44 residential burglaries in which items were taken.

D. Citizen Participation

Data on citizen participation in the burglary prevention program were collected and appear in Appendix V , Tables 2 & 3.

Through local media coverage, civic meetings, and a door-to-door campaign, an attempt was made to involve as many citizens as possible in the burglary prevention program. While the local newspapers and radio stations informed the citizens of the burglary prevention program, the coverage did not provide citizens with the detailed information needed to effectively organize neighborhood block-watches, or induce citizen participation in the other aspects of the program. The most successful means of insuring citizen participation in the program appeared to be the door-to-door campaign, during which personal contact with citizens was made to encourage them to attend a neighborhood burglary prevention meeting. At these neighborhood meetings, citizens received valuable information on burglary prevention, including how to organize a block-watch, how to mark personal property with engravers, how to properly secure a home, and how to request a home

security inspection from the police.

While all Bellevue citizens could participate in and receive the prevention services offered by the program, two areas of Bellevue were designated as high burglary areas and were used as the starting points for the door-to-door campaign. These two high crime areas were Enatai and Ardmore, as mentioned before.

Citizen participation will be documented for the three project treatments of block-watch, property marking, and security inspection. Each treatment will be described independantly. Again the reader is reminded that the project records were incomplete, therefore these figures on citizen participation are probably lower than actual figures.

1. Block-Watch

a. City wide (includes Ardmore and Enatai)

During the project year May 1, 1975 through April 31, 1976 there were 119 neighborhood meetings. At these meetings 1,368 households were represented. This information was taken from attendance records used by the project personnel. These 1,368 households represented 5.26% of the total estimated households in Bellevue. The average number of households represented at each meeting was 11.5.

As a result of the 119 neighborhood meetings, 89



citizen block-watches were established (not all citizens that attended a neighborhood meeting participated in a block-watch). There were 1,195 households which participated in the neighborhood block-watches, these 1195 households represented 4.6% of the total households in Bellevue. The average number of households in a neighborhood block-watch was 15.4.

b. Ardmore and Enatai

The areas of Ardmore and Enatai received an intensive door-to-door campaign promoting the burglary prevention program. As a result, during the project year May 1, 1975 through April 31, 1976 there were 41 block-watches organized in these two areas. This indicates that almost half (46%) of the total block-watches organized in Bellevue came from the Ardmore and Enatai areas. The 566 households participating in the block-watches from the Ardmore and Enatai areas represented 35.64% of the households in those neighborhoods. The average number of households that participated in a block-watch was 13.8.

The formula for estimating households is in Section III-D

2. Property engravers

These figures represent those citizens that either: (a) checked out an engraver from the Bellevue Police Department, or (b) were given access to a property engraver by the block-watch captain for a short period of time. It was not confirmed whether these citizens did, in fact, use the engravers or the warning decal.

These numbers were generated from project records kept by project staff.

a. City wide (includes Ardmore and Enatai)

There were 529 households that participated in the property engraving aspect of the prevention program. These 529 households represented 2% of the total households in Bellevue.

b. Ardmore and Enatai

There were 400 households that participated in the engraving aspect of the prevention program from these two neighborhoods. As only 529 households participated in the engraving portion of the project, the Ardmore and Enatai areas represented 76% of property marking households. These 400 households reflected 25% of the households in the Ardmore and Enatai areas.

3. Home Security inspections

One aspect of the burglary prevention program offered Bellevue citizens courtesy home security inspections conducted by a Bellevue Police Officer. The response to this program element however was minimal. Half way through the project year only six home inspections had been conducted. By the end of the project year a total of nine security inspections had been performed.

E. Impact of the Bellevue Burglary Prevention Program on reported residential burglary

For the purpose of this evaluation, the restated objective against which the program was evaluated was:

Given the operation of the residential burglary prevention program in Bellevue, a statistically significant decrease will be documented when the number of reported residential burglaries before the program is compared to the number of reported residential burglaries after program initiation.

To determine the programs success in achieving it's objective to significantly reduce the incidence of residential burglary two measures were used on a city-wide basis, and two measures were used for a participant neighborhood, and non-participant neighborhood comparison.

The two measures of achievement used on a city-wide scale were:

- (1) The number of reported residential burglaries for pre- and post-program months were compared by means of a regression discontinuity analysis, and
- (2) The rates of reported residential burglary (per 100 households) for pre- and post-program initiation months were compared by means of a t-test.

The two measures of achievement used for the participant neighborhoods and non-participant neighborhoods comparison were:

- (1) The monthly rates of reported residential burglaries (per

100 households) were compared for participant and non participant areas for pre- and post-period months by means of a t-test, and

- (2) The number of reported residential burglaries for pre- and post-months were compared by means of a regression discontinuity analysis performed independently for participant and non-participant areas.

1. City-Wide Analysis

As explained earlier, the pre-program months used were May 1974 through April 1975, or the year prior to the prevention program's implementation city wide. The post program months used were May 1975 through April 1976, or the year following the city wide program implementation date. Bellevue did have the first year burglary prevention grant project operating during the year May 1974 through April 1975. Some citizens in the target neighborhood were exposed to the burglary prevention strategies. However, the experimental area used in the first year grant project experienced only 23 reported residential burglaries during the year May 1974 through April 1975. Even if the program had been 100% effective it would not have affected the city-wide reported residential burglary frequency. Therefore, because the influence of the first year project on the second year project was minimal at best, the year May 1974 through April 1975 was sufficient as a baseline data year.

- a. Measure one - regression discontinuity analysis

Graph 2 indicates the results of the city-wide regression discontinuity analysis. According to Campbell<sup>2</sup>

<sup>2</sup>Campbell, Donald, "Reforms as Experiments," American Psychologist, Vol 24, No. 4 (April 1969), pp. 409-429.

this test is appropriate when services cannot be denied to a control group, as was the case in Bellevue. The methodology is as follows: the least squares regression equation is computed on the basis of the number of burglaries in the pre-program months; the least squares regression equation is also computed for the post-program months. The regression lines are then plotted and compared; substantial differences are demonstrated when the slope and the intercept of the two regression lines differ.

Graph 2 indicates that the number of reported residential burglaries were substantially reduced during the post-program initiation period. The equations compared as follows:

	<u>Slope</u>		<u>Intercept</u>
Pre-program Y =	2.688(x)	+	56.11
Post-program Y =	0.033(x)	+	62.88

The regression lines were different in both intercept and slope. While the slope in the post-program initiation period was not negative, (which would have indicated a decreasing trend) the number of reported residential burglaries was down and appeared to have stabilized.

Since reported residential burglary figures were used for the purposes of the evaluation, a bias may have been introduced, as reporting rates may tend to increase during prevention program operation<sup>3</sup>. As a result, the actual numbers of reported residential burglaries may be over-represented in the post-program initiation period.

3. Schneider, A.J. Evaluation of Portland Neighborhood-based Anti-Burglary Program. Oregon Research Institute, 1976 (pp. 7, 18).

b. Measure two - t-test

During the pre-program period the mean monthly rate of reported residential burglary (per 100 households) was 3.66. During the post-program initiation period the mean monthly rate of reported residential burglary (per 100 households) was 5.21. A t-test for significance comparing the monthly rates in the pre-program period to the post-program initiation period indicated that the decrease during the post period was statistically significant ( $p < .025$ , see Appendix VI, table 4).

Limits to these types of analyses however, preclude attributing the decrease in the number and rate of reported residential burglaries to the program elements alone, i.e. there may be other factors unrelated to the program contributing to the decrease. Other possible explanations for the decrease include:

(1) Statistical regression towards the mean

The regression effect (Campbell, 1969) suggests that Bellevue's reported burglary level was uncharacteristically high during the pre-period and therefore "artificial." The further suggestion by Campbell is that an "artificially" high level (as was the case for burglary in Bellevue) would abate regardless of any intervention strategies (e.g. Bellevue's Burglary Prevention Program). This explanation has some validity as the pre-project year of May 1974 through April 1975 did realize a greater incidence of reported residential burglary in Bellevue than any other year over the last five years.

(2) Bellevue Team Policing

In June 1975, the Bellevue Police Department implemented a team policing strategy. Under this strategy, patrol officers were given the added responsibility of performing functions which in the past were normally performed by detectives (e.g. follow-up investigations, gathering of evidence, etc.). For those cases followed-up, increases in both the arrest and clearance rates were anticipated. With the police officers aware of the burglary prevention program in existence, special emphasis was given the burglary case follow-ups.

The data in Appendix VII Table 5 show that burglary "arrest rates" have increased from the pre to post prevention program periods.<sup>4</sup> Rates of burglary arrests per month over the number of burglaries per month were computed for the pre and post burglary project periods. The arrest rate increased from 18.91% in the pre-period to 24.66% in the post-prevention program period. A t-test performed on the monthly rates for the pre and post-periods indicated that the increasing arrest rates for the post period were not statistically significant ( $p > .05$ ) although, the changes in arrest rates may be considered significant in a practical sense.<sup>5</sup>

4. The "arrest rate" is not a true arrest rate in that the arrests during any given month are not necessarily those for burglaries committed during the same month.

The implication is that team policing strategies may have impacted the prevention program, i.e. contributed to the reported residential burglary decrease, as burglars have either (1) been removed from the street by arrest, jail and/or prison, and are therefore unable to commit burglaries, or (2) burglars became aware of the new police strategies and were, therefore, deterred from burglary activities. Most of the newspaper articles about the burglary prevention program also made reference to the team policing strategy; the burglary statistics then may reflect the combined effects of the two programs.

Initially, four officers were assigned to do burglary prevention presentations, while two student interns and a citizen volunteer performed the necessary door-to-door campaigning. By the end of December 1975, 41 officers had been trained to give the presentations while 17 officers (excluding the staff) were actually involved in giving the program presentations. When the student interns completed their internships in August 1975, and the citizen volunteer departed in November 1975, the Bellevue police officers took over the door-to-door campaign; contacting citizens and setting up neighborhood meetings. The implication here is that many more neighborhood meetings were held and therefore

5. The calculated value of  $t$  approached significance at the .05 level ( $t=1.697, 95\%$ ), while the critical value of  $t=1.757$ .



block-watches formed as a result of the increased use of team police officers functioning as burglary prevention program personnel. Team police officers were responsible for 23 of the 89 block-watches organized, or 25.84% of the neighborhood block-watches.

2. Comparison of participant and non-participant neighborhoods

While it was clear that Bellevue did experience a statistically significant decrease in the number and rate of reported residential burglary after the implementation of the burglary prevention program, it was not possible with the measurements used, to fully attribute the decrease to the operation of the burglary prevention program. By a comparison of intensive participant areas with minimal participant areas in the amount of burglary reduction after the prevention programs implementation, some inferences could be made regarding the possible effectiveness of the burglary prevention program.

As noted earlier, sections of Ardmore and Enatai (referred to as Area One) received extensive door-to-door campaigning and the program participation response by citizens in these areas was very favorable.\* Within the participating sections of Ardmore and Enatai 566 (35.64%) of the households in this area participated in a block-watch, and 400 (25.14%) of the households in this area participated in the property engraving/decals element of the program. These two high

\*The section of Ardmore referred to in this report was bounded by the following streets: North - 24th St. N.E., South-Northrup Way, East-170th Ave. N.E., West - 150th NE.

The section of Enatai referred to in this report was bounded by the following streets: North - Cedar Court Lane and Pinedale Lane, South 22th, East 102th S.E., West - 303th Ave. S.E. (see the maps in appendix I).

participant areas were combined and compared to the rest of Bellevue, (referred to as Area Two excluding the sections of Ardmore and Enatai) which had received only minimal exposure to the prevention program, and in which the participation response was minimal. In the Bellevue area, (excluding Ardmore & Enatai) only 802 (3.29%) of the households in this area participated in a block-watch, and only 129 (0.53%) of households in this area participated in the property engraving/decal program element.

During the pre-program period, Area One reported 72 residential burglaries, representing 8.15% of the total residential burglaries in Bellevue. During the post-program initiation period, Area One reported only 37 burglaries, representing 4.89% of the total reported residential burglaries. During the pre-program period Area Two reported 811 residential burglaries representing 91.85% of the total reported residential burglaries in Bellevue. During the post-program initiation period, Area Two reported 720 residential burglaries representing 95.11% of the total reported residential burglaries in Bellevue. This reflects a 48.61% (from 72 to 37) decrease in the number of reported residential burglaries for Area One in the post-prevention program initiation period as opposed to an 11.22% (from 811 to 720) decrease in reported residential burglary experienced by Area Two. (See Table 6.)

TABLE 6

Frequency and Percent of Bellevue's Total Reported Residential Burglaries by Area

	PRE		POST	
	F	%	F	%
Area One	72	8.15	37	4.89
Area Two	811	91.85	720	95.11
	883	100.00	757	100.00

a. Measure one - t-test for significance

The mean monthly rates of reported residential burglary (per 100 households) further supported the apparent decreases in reported residential burglary frequencies. The mean monthly rate for Area One in the pre period was 4.81. The mean monthly rate in the post-period was 2.33. A t-test for significance indicated this rate decrease in Area one was statistically significant ( $p < .005$ , see Appendix IX, Table 7). The mean monthly rate of reported residential burglary (per 100 households) for Area Two dropped from 3.57 in the pre-period to 2.95 in the post-period. However, a t-test for significance indicated this rate decrease was not statistically significant ( $p > .05$ , see Appendix IX, Table 8).

b. Measure two - regression discontinuity analysis

One more attempt was made to measure the statistical significance of the changes in reported residential burglaries for the intensive citizen participant areas and the minimal citizen participant areas. The regression discontinuity analysis was used for each area independently

The least squares regression line for Area One in the

pre-program period (May 1974 through April 1975) indicated an increasing slope, the numbers of reported residential burglaries were increasing. During the post program initiation period the computed least-squares regression line indicated a decreasing slope, hence the numbers of reported residential burglaries were decreasing. The projected number of reported residential burglaries for May 1976 for Area One was zero. As can be seen, the slope and the intercepts are different (see Appendix X, Graph 3).

		<u>Slope</u>		<u>Intercept</u>
<u>Area One</u>	Pre - Y =	.280(x)	+	4.182
	Post - Y =	-.507(x)	+	6.377

Area Two in the pre-period indicated an increasing slope, hence reported residential burglaries were increasing. During the post-program initiation period the computed least squares regression line while different in slope and intercept from the pre-period, indicated that reported residential burglary was still on the increase, although the actual frequency of reported residential burglary was down. (see Appendix X, Graph 3.)

		<u>Slope</u>		<u>Intercept</u>
<u>Area Two</u>	Pre - Y =	1.989(x)	+	54.652
	Post - Y =	.371(x)	+	57.591

In summary, the only decreasing trend was experienced in Area One during the post program initiation period. This suggests that Area One (Ardmore and Enatai) which received the greatest amount of burglary prevention services, and maintained a high citizen participation rate, experienced

the greatest decrease in reported residential burglary frequency and rate.

It is not known to what extent, if any, displacement effects may have influenced the project outcome. The usual assumption about displacement is that it is most apt to occur in areas close to the experimental area, in this case Area One. As no specific residential burglary comparisons were made of those neighborhoods surrounding the Ardmore and Enatai areas, no inferences were made regarding the transference of residential burglary activities after the burglary prevention program was implemented.

#### IV. Summary and conclusions

This evaluation report has analyzed:

- (1) descriptive data covering the characteristics of reported residential burglary in Bellevue;
- (2) the extent of citizen involvement in the Bellevue burglary prevention project; and
- (3) the impact of the burglary prevention program on the reported residential burglary rates for Bellevue.

In summary, the study showed that:

- (1) Bellevue as a whole experienced a significant reduction in both rates and frequency of reported residential burglary; and

(2) the intensive participant neighborhoods (Ardmore and Enatai) experienced a greater reduction in both reported residential burglary rates and frequency than the rest of Bellevue.

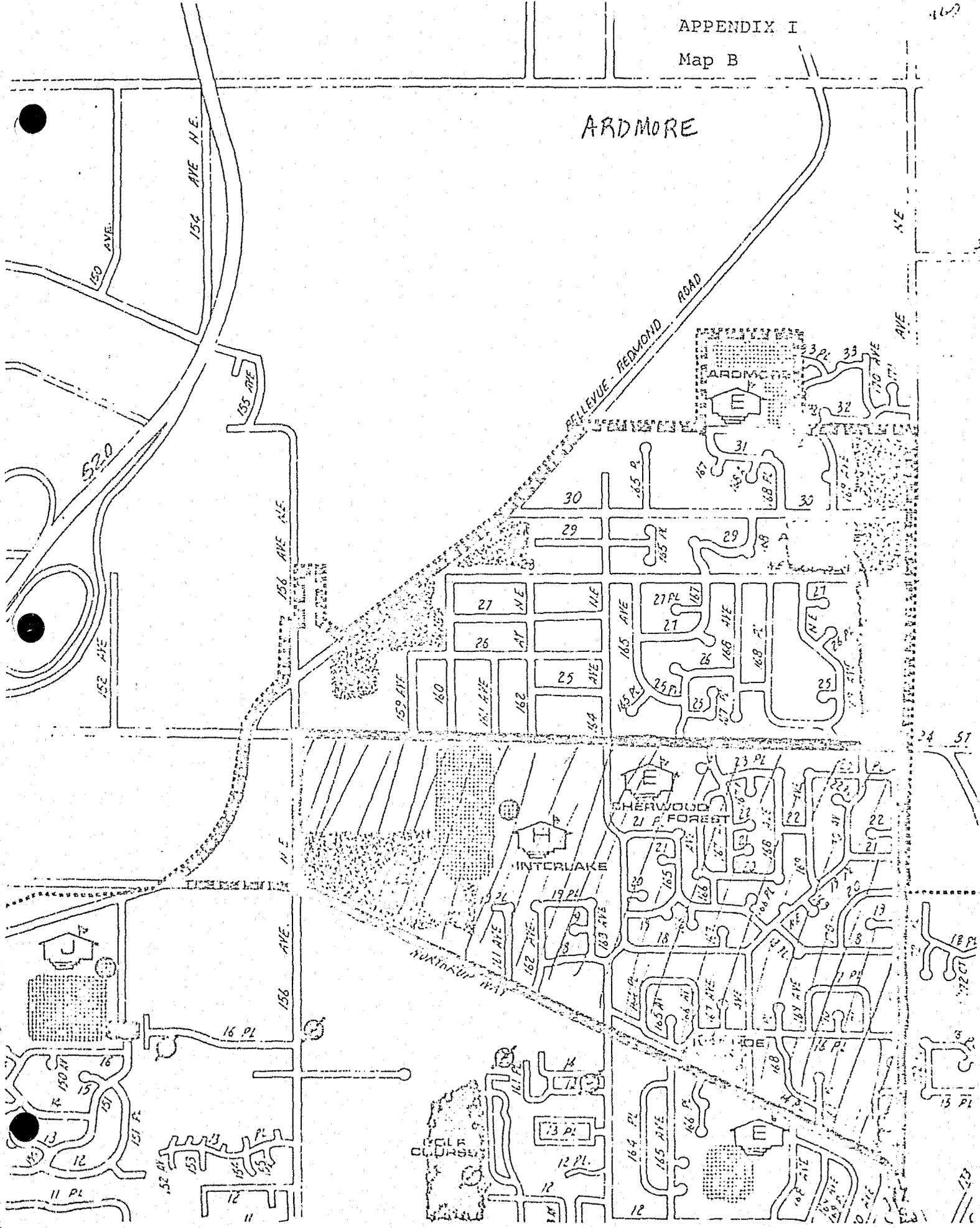
Furthermore, the actual decreases in reported residential burglary frequency and rates may actually be greater than those noted in this evaluation if residential burglary reporting rates increased as a result of the project.

While the decreases in Bellevue's reported residential burglary frequency and rates were significant, it was not possible to attribute the decreases to the burglary prevention program alone. Other factors may have partially accounted for the decreases. Other possible causes which may have contributed to the apparent decreases in reported residential burglary in Bellevue included the effects of statistical regression, and/or the combined effects of Bellevue's Team Policing strategies. Furthermore, it was not known to what extent, if any, burglary displacement effects may have influenced the project's outcome.

The qualifications notwithstanding, the data contained in this evaluation suggest that the program has been a success. It appears that crime prevention activities of this nature are worthwhile and therefore should be continued within the structure of Bellevue's Team Policing Program.



ARDMORE



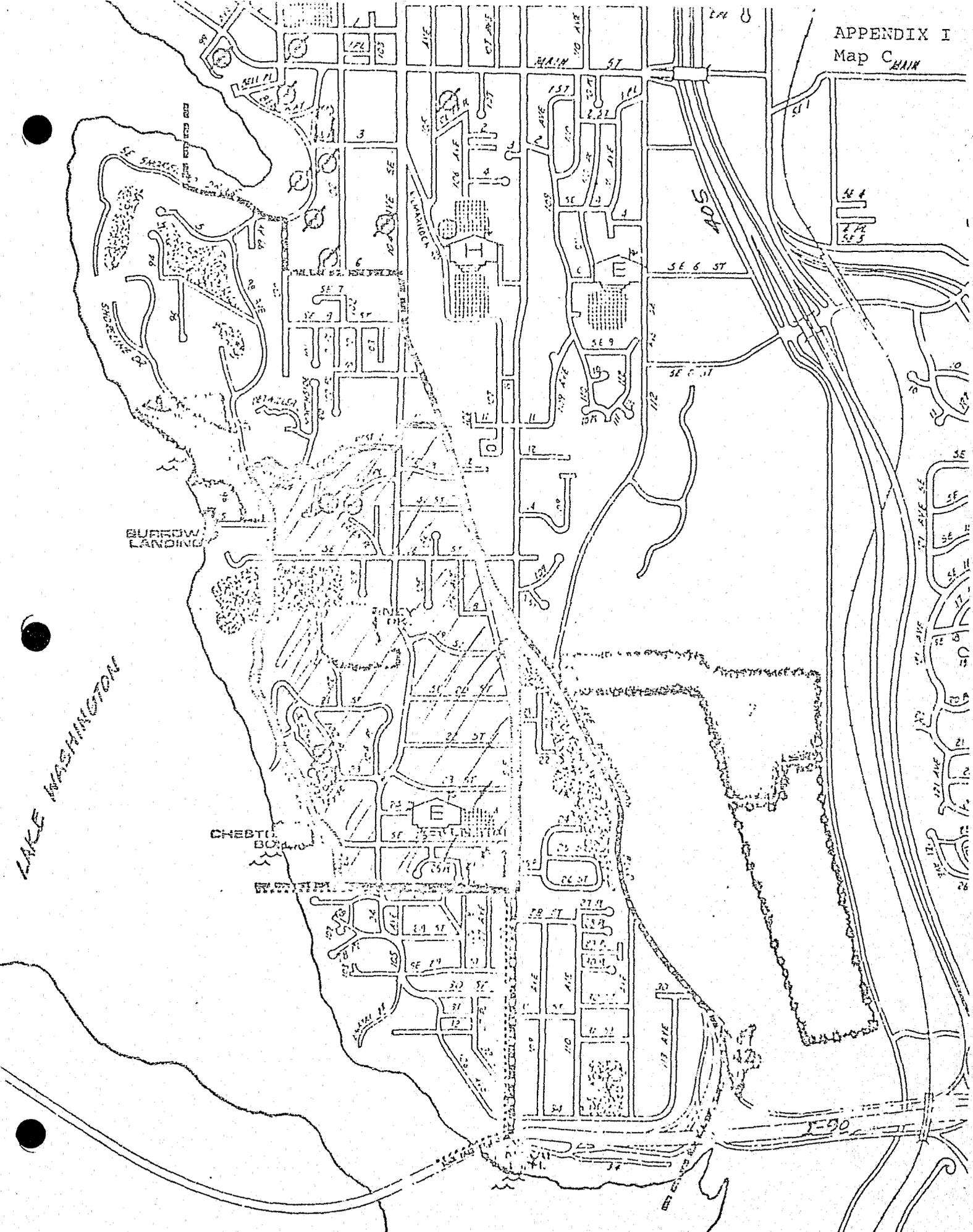
167

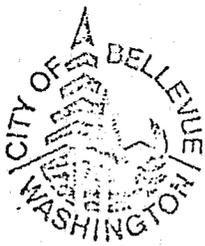
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24 57

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Bellevue  
Police  
Department Newsletter

Crime

Alert

October, 1975

This newsletter is published as a public service by the Police Department to keep you aware of the residential burglary problem in Bellevue.

January through September 1975, there has been a total of 674 residential burglaries in Bellevue.

Of these 45% were forced  
45% were non-forced (entry gained through unlocked door or window)  
10% method of entry was unknown or burglary was attempted without success

36% entry was gained at the rear of the house  
6% entry was gained at the side of the house  
27% entry was gained at the front of the house  
31% point of entry was unknown

Our statistics indicate your home may be burglarized ANY DAY OF THE WEEK.

62% occurred during daylight hours

During the month of September, there were 63 residential burglaries in Bellevue.

45% were forced  
54% were non-forced  
1% attempted or unknown

15% entry gained at rear of house  
9% entry gained at side of house  
26% entry gained at front of house  
49% point of entry unknown

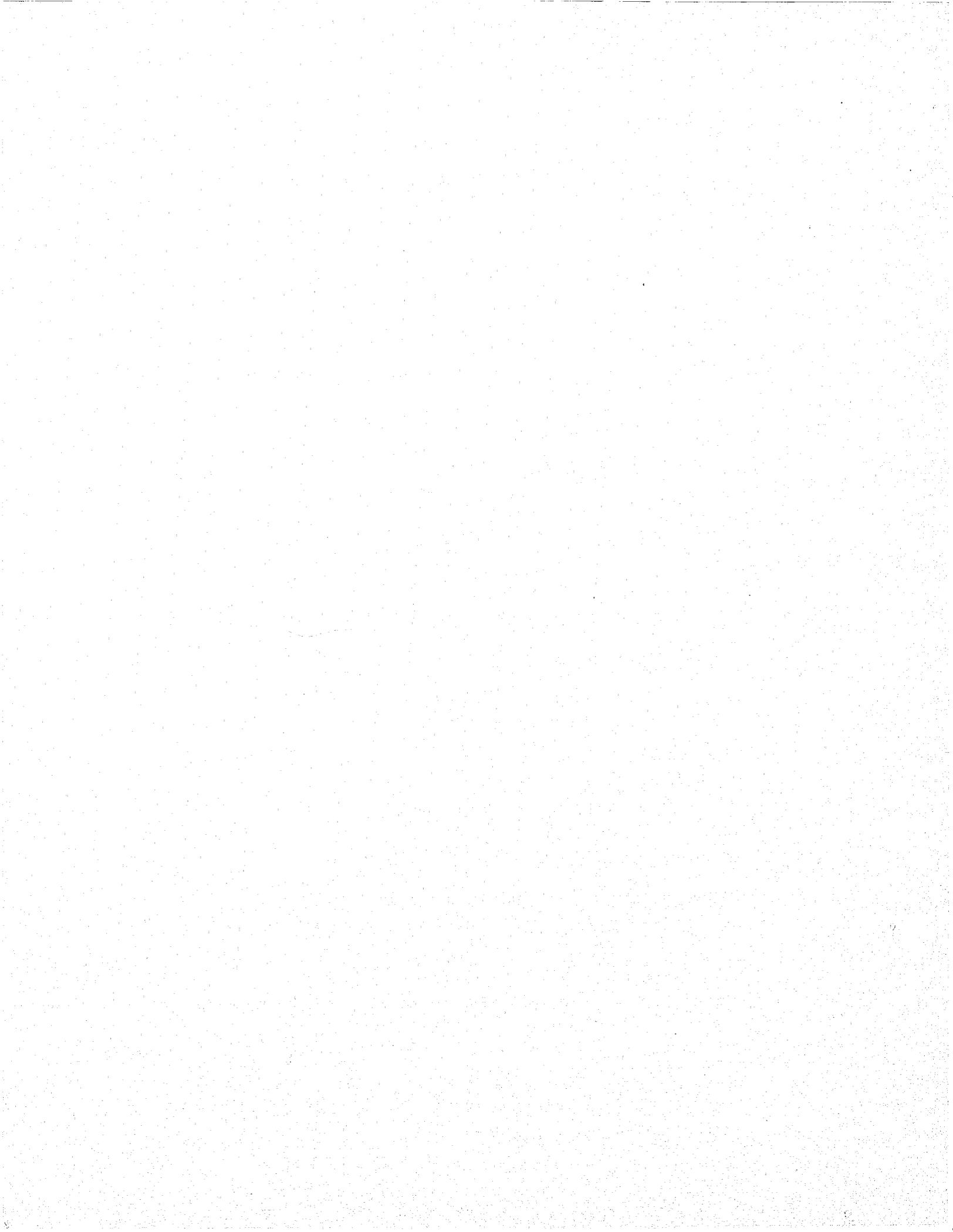
The property loss due to residential burglary during the first nine months of this year has been \$ 186,175.00

#### NO COST/Common Sense Prevention Techniques

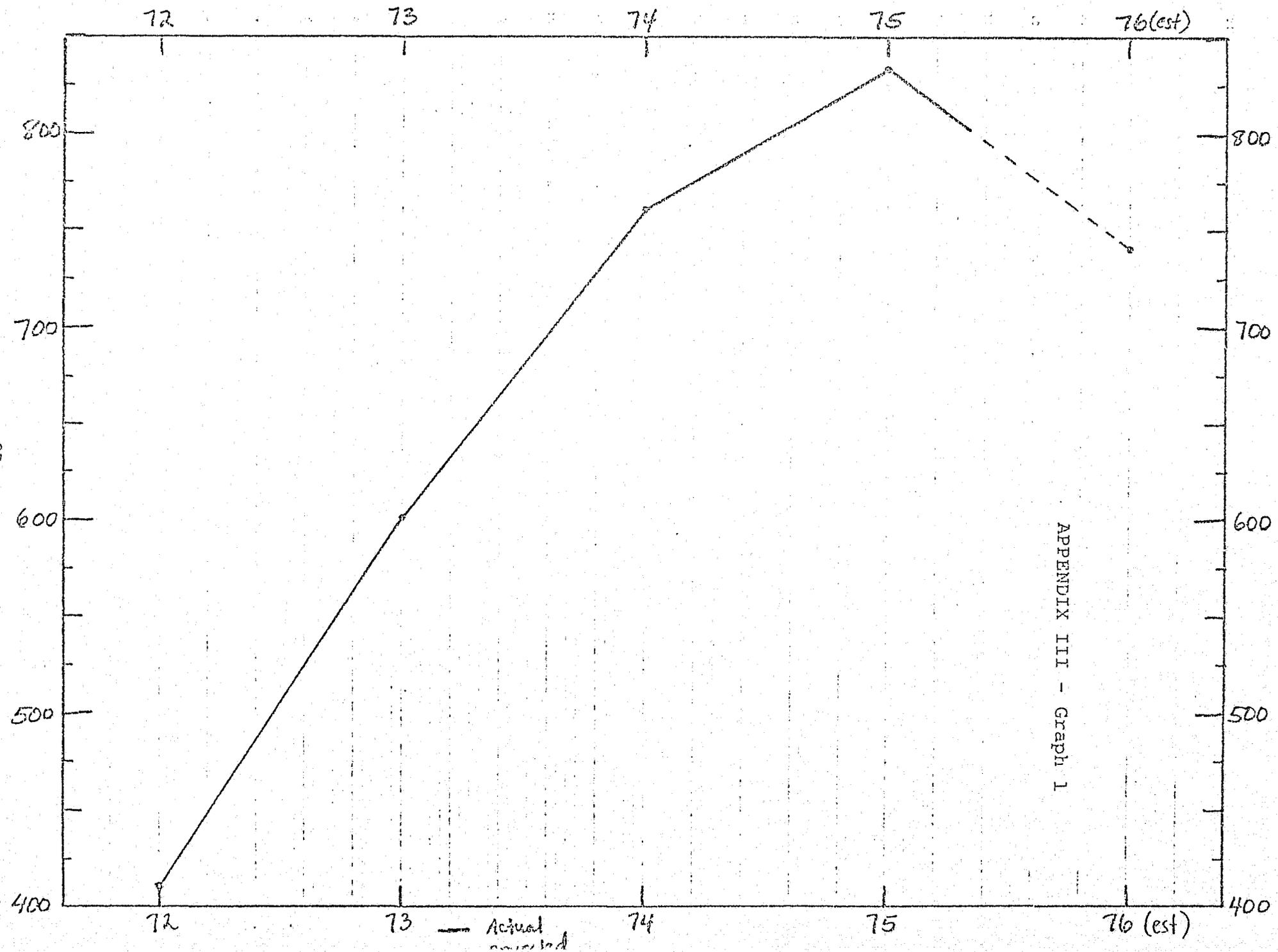
Recovered property which cannot be positively identified cannot be returned to the owner. To aid in the recovery of stolen property; record the serial number of valuable items: engrave property with your Washington State Driver's License number or take a color photograph of property which does not lend itself to being marked.

Engravers are available on loan at no cost through the Police Department. Remember, when you see suspicious activity in your neighborhood, report it immediately to the police.

Your best protection against burglary is to be a good neighbor.



TOTAL RESIDENTIAL BURGLARIES - BY YEAR 1972-1976



APPENDIX III - Graph 1

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TABLE A

Time of Day, Residential Burglaries  
in Bellevue, 1975

	<u>Number</u>	<u>Per Cent</u>
Day (6 a.m.-6 p.m.)	412	48.5
Night (6 p.m.-6 a.m.)	437	51.5
Total	849	100.0

TABLE B

Day of Week, Residential and Nonresidential  
Burglaries in Bellevue, December 1975

	<u>Residential</u>		<u>Nonresidential</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Monday	13	27.7	7	22.6
Tuesday	9	19.1	5	16.1
Wednesday	11	23.4	2	6.5
Thursday	4	8.5	5	16.1
Friday	2	4.3	4	12.9
Saturday	7	14.9	5	16.1
Sunday	1	2.1	3	9.7
Total	47	100.0	31	100.0



TABLE C

Method and Point of Entry, Residential and  
Nonresidential Burglaries in Bellevue,  
December 1975

	Force						Nonforce						Total	
	Door		Window		Other		Door		Window		Other			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Residential	12	26.1	16	34.8	3	6.5	8	17.4	3	6.5	4	8.7	46	100.0
Nonresidential	22	31.9	16	23.2	0		18	26.1	6	8.7	7	10.1	69	100.0

TABLE D

Cash Value of Property Stolen in Residential  
and Nonresidential Burglaries in Bellevue, December 1975

	<u>Mean</u>	<u>Median</u>	<u>Range</u>
Residential (N = 44)	\$509	\$212	\$9-2,522
Nonresidential (N = 21)	\$393	\$110	\$10-1,725

Type of Property Stolen. The most common items stolen in residential burglaries during December 1975 were home entertainment (stereos, televisions, etc.) and small office equipment (calculators). These items were taken in 19 of the 46 residential burglaries in which goods were stolen. When the type of property stolen in nonresidential burglaries was analyzed, no pattern was discerned; except, as expected, the type of property stolen appears to be related to the nature of the business or target (e.g., tires stolen from a gas station).



TABLE 2

Block Watch Participation Data by Neighborhood Area  
 May 1975 through April 1976

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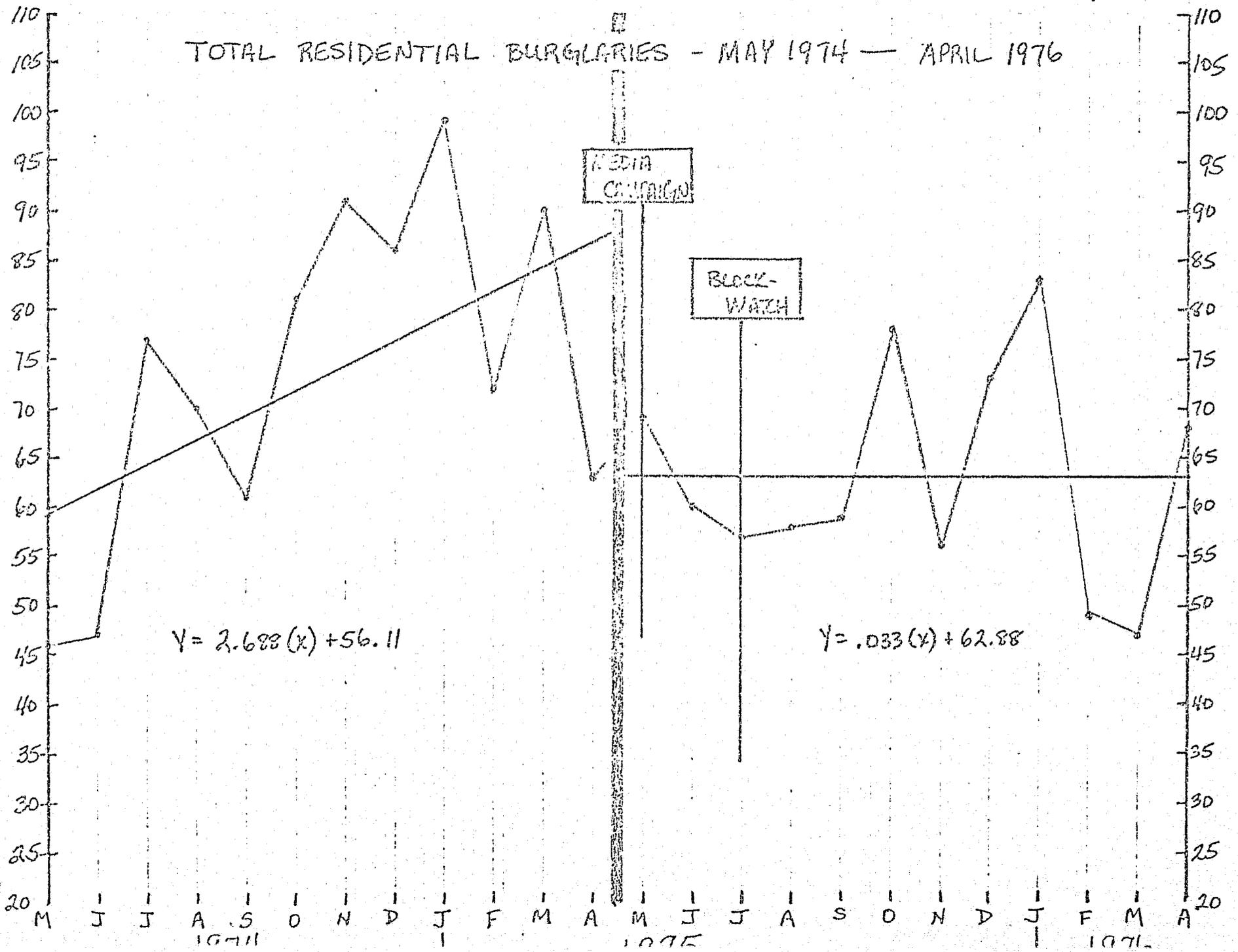
	<u># of Blockwatches</u>	<u># of Hslds. in Area in a Blockwatch</u>	<u>% of Hslds. in Area in a Blockwatch</u>
Area One	41	566	35.64%
Area Two	48	629	3.29%
Bellevue Total	89	1,195	4.59%

TABLE 3

Property Engraving Data by Neighborhood Area --  
 May 1975 through April 1976

---

	<u># of Hslds. Which Used Engravers</u>	<u>% of Hslds in Area Which Used Engravers</u>
Area One	400	25.14%
Area Two	129	0.53%
Bellevue Total	529	2.03%



APPENDIX VI - Graph 2

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TABLE 4

Total Reported Residential Burglary Rates - Bellevuet-test score

<u>PRE</u> (May 1974-April 1975)	<u>POST</u> (May 1975-April 1976)
$N_1 = 12$	$N_2 = 12$
$EX_1 = 883$	$EX_2 = 757$
$EX_1 = \text{rate} = 3.64$	$EX_2 = \text{rate} = 2.91$
$EX_1^2 = 11.6$	$EX_2^2 = 7.25$
$E (X_1 - \bar{X}_1)^2 = .551$	$E (X_2 - \bar{X}_2)^2 = .209$
$\bar{X}_1 = 0.30$	$\bar{X}_2 = 0.24$

$$S^2 = .035 \quad S\bar{X}_1 - \bar{X}_2 = .024 \quad t = 2.5 @ 22 \text{ df, } p .025$$

BURGLARY ARREST DATA

May 1974 through April 1976

	<u>Pre</u>		<u>Post</u>
May	9	May	10
June	9	June	16
July	15	July	10
Aug	22	Aug	15
Sept	7	Sept	16
Oct	7	Oct	22
Nov	16	Nov	19
Dec	3	Dec	20
Jan	6	Jan	21
Feb	28	Feb	15
Mar	26	Mar	12
Apr	14	Apr	9
Total	162	Total	185
$\bar{X}$	13.5	$\bar{X}$	15.4
Median =	11.5	Median =	15.5

TABLE 5

Bollevue Burglary Arrest Rates - t-test Score

PRE (May 1974-April 1975)      POST (May 1975-April 1976)

$N_1 = 12$

$N_2 = 12$

$EX_1 \text{ rate} = 226.86$

$EX_2 \text{ rate} = 295.89$

$\bar{X}_1 \text{ rate} = 18.91$

$\bar{X}_2 \text{ rate} = 24.66$

$EX_1^2 \text{ rate} = 5521.59$

$EX_2^2 \text{ rate} = 7734.81$

$E (X_1 - \bar{X}_1)^2 = 1232.81$

$E (X_2 - \bar{X}_2)^2 = 438.91$

$S^2 = 75.99$

$S\bar{X}_1 - \bar{X}_2 = 3.56$

$t = 1.66.7$  @ 22 df,  $p < .06$   
not statistically significant

## APPENDIX VIII

	<u>Ardmore</u>	<u>Enatai</u>	<u>Both (Ardmore &amp; Enatai)</u>	<u>Bellevue (Ardmore &amp; Enatai)</u>
Sample Pop.*				
74	2,252	1,700	3,952	59,988
75	2,302	1,731	4,033	61,967
Est. #/Household				
74/75	2.64	2.64	2.64	2.64
75/76	2.54	2.54	2.54	2.54
Est. # of Households				
74/75	853	644	1,497	22,723
75/76	906	681	1,588	24,396
# of Houses in Blockwatch	357	209	566	629
%	39.40%	30.69%	35.64%	2.58%
# of Burglaries				
74/75	46	26	72	811
75/76	28	9	37	720
Burglaries/100 Hslds.				
74/75	5.39	4.04	4.81	3.57
75/76	3.09	1.32	2.33	2.95
Burglaries/1000 Pop.				
74/75	20.43	15.29	18.22	13.52
75/76	12.16	5.19	9.17	12.86
Property Engraver Req.	235	165	400	129
% Households	25.94%	24.23%	25.14%	.53%

\* Populations have been adjusted to coincide with actual boundaries used in the project.

1 year = May through April

TABLE 7

Area One - Reported Residential Burglary Rates - t-test score

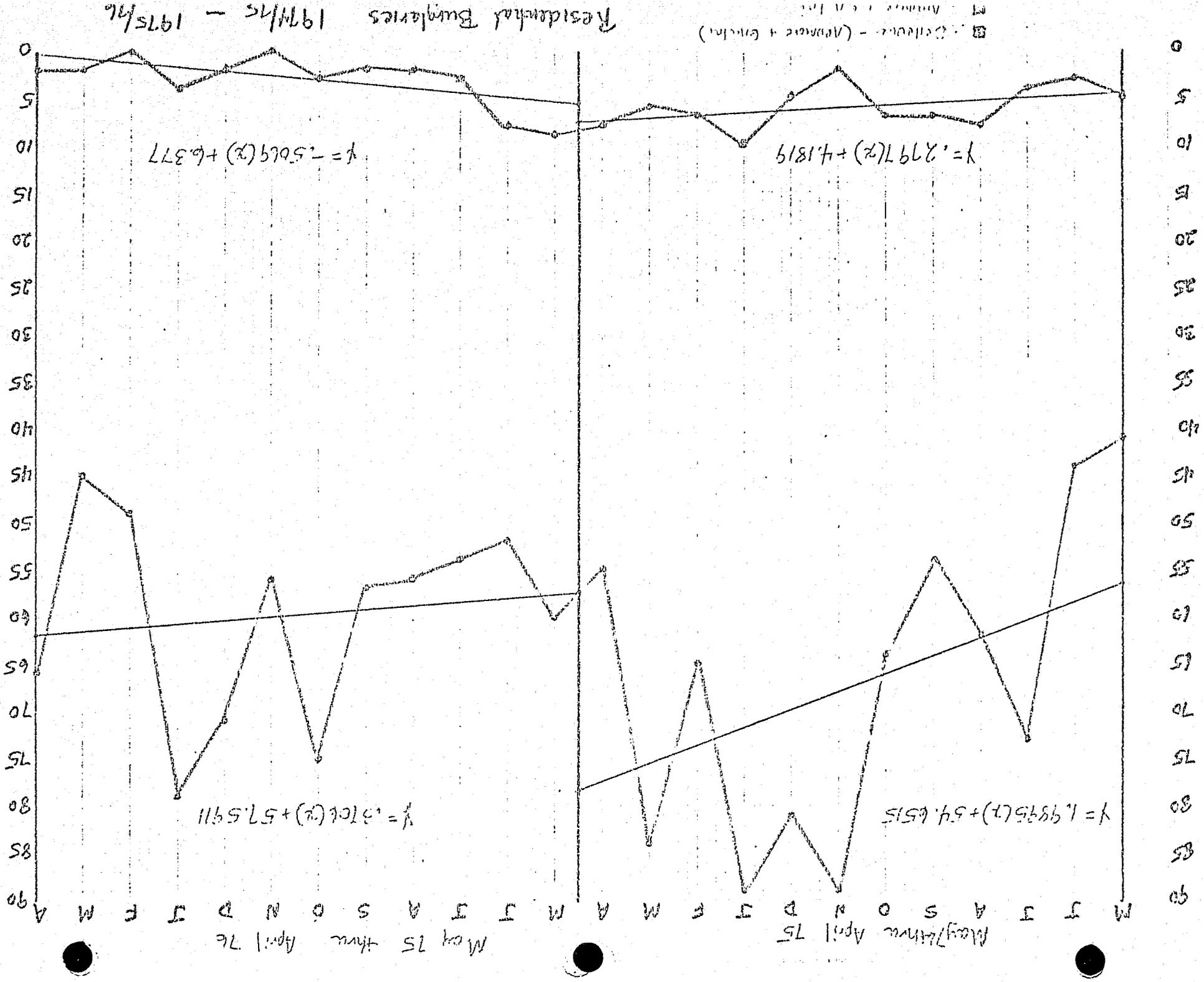
<u>PRE</u> (May 1974-April 1975)	<u>POST</u> (May 1975-April 1976)
$N_1 = 12$	$N_2 = 12$
$EX_1 = 72$	$EX_2 = 37$
$EX_1 \text{ rate} = 4.8096$	$EX_2 \text{ rate} = 2.3297$
$\bar{X}_1 = .4008$	$\bar{X}_2 = .1941$
$E (X_1 - \bar{X}_1)^2 = .1883$	$E (X_2 - \bar{X}_2)^2 = .2615$
$S^2 = .0204$	$S\bar{X}_1 - \bar{X}_2 = .0583$
	$t = 3.5454 @ 22 \text{ df, } p < .005$

TABLE 8

Area Two - Reported Residential Burglary Rates - t-test score

<u>PRE</u> (May 1974-April 1975)	<u>POST</u> (May 1975-April 1976)
$N_1 = 12$	$N_2 = 12$
$EX_1 = 811$	$EX_2 = 720$
$EX_1 \text{ rate} = 3.5691$	$EX_2 \text{ rate} = 2.951$
$\bar{X}_1 = .2974$	$\bar{X}_2 = .2459$
$E (X_1 - \bar{X}_1)^2 = .0598$	$E (X_2 - \bar{X}_2)^2 = .0207$
$S^2 = .0037$	$S\bar{X}_1 - \bar{X}_2 = .0207$
	$t = 1.5766 @ 22 \text{ df, } p > .05$ not significant

APPENDIX X - Graph 3



APPENDIX XI

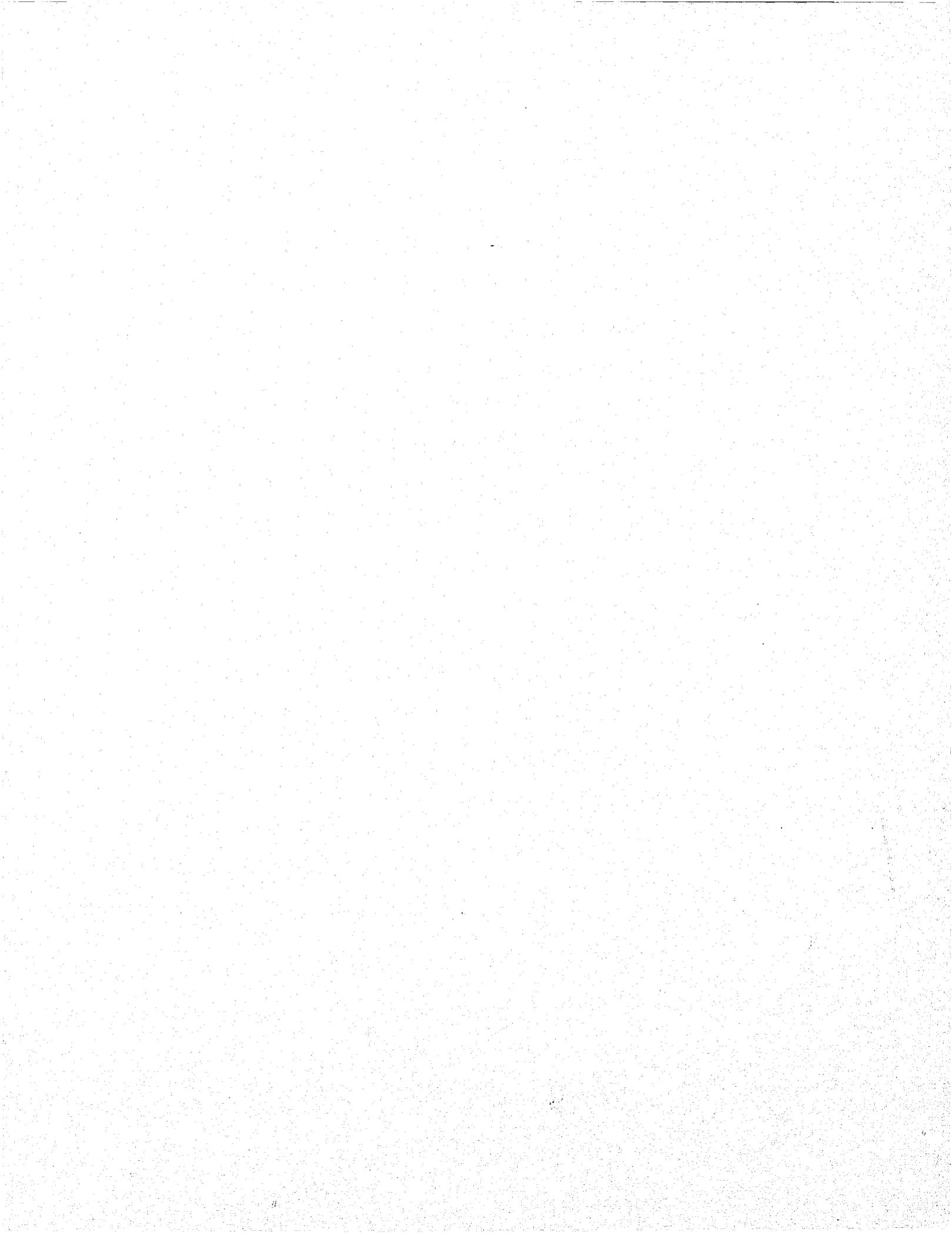
Reported Residential Burglaries Per Month

PRE May 1974 through April 1975

POST May 1975 through April 1976

	1. Ardmore		2. Enatai		3. Total 1 & 2		4. Bellevue (-3)	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST
May	4	9	1	0	5	9	41	60
June	2	6	1	2	3	8	44	52
Jul	2	3	2	0	4	3	73	54
Aug	6	1	2	1	8	2	62	56
Sep	2	1	5	1	7	2	54	57
Oct	5	3	2	0	7	3	74	75
Nov	2	0	0	0	2	0	89	56
Dec	5	1	0	1	5	2	81	71
Jan	4	1	6	3	10	4	89	79
Feb	4	0	3	0	7	0	65	49
Mar	4	2	2	0	6	2	84	45
Apr	6	1	2	1	8	2	55	66
Total	46	28	26	9	72	37	811	720
% Change	-39.1%		-65.4%		-48.6%		-11.2%	





**END**