

Crime Prevention in High-Rise Rental Apartments: Findings of a Demonstration Project

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This study examined the relationship between crime patterns in five high-rise apartments and the implementation of a crime prevention program incorporating both "Apartment Watch" and target-hardening efforts. The research design called for surveys of tenants both prior to and following the program. Supplementary data were obtained from police occurrence reports in an effort to detect changes in reported crime. Survey findings indicated that the program had been successful in making people aware of its existence, but not in recruiting tenants as active program participants. Crime was more often seen as a serious problem in the neighborhood. There was also an increase in the perceived likelihood that a neighbor would notice a break-in at a respondent's apartment. Examination of police data revealed an 82% reduction in the frequency of break and enters between the pre- and post-program periods. In contrast, no change in the frequency of offenses against vehicles occurred during this time.

Keywords: Apartment; crime prevention; environmental design; neighborhood watch; burglary

Introduction

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Over the past 15 years, there has been considerable interest in ecologically oriented studies and environmental criminology. Traditional methods for controlling crime have proven to be of limited effectiveness. This has led to the realization that alternative approaches to reducing crime are necessary. One of these alternatives has been crime prevention.

Crime prevention has taken many forms (Brantingham and Faust, 1976). Of particular interest to this study is crime prevention through environmental design. This method of crime prevention manipulates and/or modifies physical structures of the environment in order to reduce potential criminal opportunity (Newman, 1972; Pablan and Baxter, 1975; Gardiner, 1978; Clarke and Mayhew, 1980).

Although it is true that many have been critical of Newman's early work (Hillier, 1973; Kaplan, 1973; Bottoms, 1974; Reppetto, 1976; Mayhew, 1979), Newman's (1972) concept of "defensible space" has stimulated many research and demonstration projects aimed at reducing crime through environmental changes.

More recently, other researchers (e.g., Brantingham and Brantingham, 1975, 1978, 1981, 1984; Davidson, 1981; Rengert, 1980, 1981; Mayhew, 1981; Altman and Brown, 1981) have examined the relationship between crime patterns and such urban environmental characteristics as neighborhood and street layouts and building designs. Conspicuously absent from this list have been high-rise apartment buildings.

High-rise buildings have historically been regarded as difficult sites in which to implement community-based crime prevention programs. Among the reasons suggested for this difficulty are the "anonymity" of high-rise buildings (people often do not know and cannot even recognize fellow tenants), the transient nature of the populations of some buildings, and the fact that since their residences are rented rather than owned some high-rise tenants may be unwilling to invest their own time and/or money in improving the security of their homes.

Regardless of the reasons for the reported difficulty in mounting successful crime prevention programs in high-rises, there is a clear need for such programs. Many people live in high-rise buildings for much of their lives. Many elderly people find that high-rise apartments suit their needs for housing, offering limited space and low maintenance requirements.

Research on criminal victimization has established that, in comparison to single-family dwellings and low-rise apartments, high-rise apartments experience relatively low crime rates. Certain types of crimes are, however, more common. For example, theft from cars parked in underground garages. But, in general, residents of high-rise buildings are victimized relatively infrequently. One related problem is fear of crime, particularly among the elderly. Research has shown that, despite their relatively low victimization rate, elderly people are often more fearful of crime than are their younger neighbors. Given the popularity of high-rise apartments among the elderly, it may well be that fear of crime among apartment residents is a very real problem.

The site of the apartment crime prevention demonstration project described herein was the Heron Gate apartment complex located in a suburban section of southern Ottawa. Heron Gate is both owned and

managed by Minto, a locally owned firm that is Ottawa's largest rental landlord. Heron Gate was chosen as the site for this demonstration project because of Minto's willingness to actively participate and because Heron Gate is one of the relatively few large rental complexes located in the city of Ottawa.

The crime prevention project consisted of two sets of activities: The first was an "Apartment Watch" program intended to involve the tenants in efforts to reduce crime in their buildings. The second set of activities consisted of a number of "target-hardening" steps taken by the owners of the complex.

The research design for this project called for surveys of a sample of the tenants both prior to and following the implementation of the crime prevention program. Supplementary data were obtained from police occurrence reports in an effort to detect changes in the level of reported crime at Heron Gate that might reasonably be attributed to the crime prevention strategies.

The Heron Gate Apartment Complex

Heron Gate consists of five high-rise rental apartment buildings located within a larger development that includes both rental and condominium town houses. The smallest of the five high-rises contains approximately 111 rental units, whereas the two largest buildings each contain 254 units. The buildings range in height from 8 to 20 stories. Monthly rents (as of 1985) ranged from approximately \$400 (Can.) per month for the least expensive one-bedroom apartment up to \$600 per month for the most expensive three-bedroom apartment. These rental rates would be regarded as medium-priced for suburban Ottawa.

The Heron Gate apartment complex provided extensive underground parking facilities. In the case of all but one of the buildings, the parking spaces were distributed over a two-floor garage. There was sufficient parking underground for all tenants. Access to the garage for vehicles was gained via key-activated automatic doors. The level of illumination varied from section to section of the garage. Minto staff patrolled the underground parking areas during the evening and nighttime hours. There was also extensive outdoor parking that was also patrolled by Minto staff. Visitor parking was limited to specified areas that were well illuminated and also patrolled by Minto staff.

A casual inspection of the Heron Gate apartment complex revealed it to be a pleasant and well-maintained place to live. It was apparent that the property owners made considerable efforts in the areas of both maintenance and security.

Apartment Watch

The main contribution to the project made by the tenants of the buildings centered on the establishment and maintenance of an Apartment Watch program. This program was based on the Neighborhood Watch model that has been widely followed in non-high-rise residential areas.

To qualify for inclusion in the Apartment Watch program, 90% of the tenants had to join the program. A basic requirement for participation in the program was that the tenants agree to engrave their Social Insurance numbers on their valuables. They were also encouraged to apply a small sticker to their apartment door indicating that their valuables had been engraved. Participating tenants were also encouraged to read through the crime prevention information provided to them as part of the program and to be generally aware of how to prevent crime in and around the building and of the importance of being a watchful neighbor.

A staged process was followed in each building in an attempt to achieve the required 90% participation rate. Beginning in October 1986, meetings were held in each building. Notices were sent around to all tenants, advising them of the dates of these meetings and describing their agenda. Typically, the meetings involved a brief presentation by one or more members of the Apartment Watch Task Force on the objectives of the program, as well as a presentation by a member of the Ottawa Police Force on home and apartment security. At the end of these meetings, an effort was made to recruit an individual tenant to act as the Apartment Watch coordinator for that building. The principal duties of the coordinator were to recruit floor captains to be responsible for tenant sign-up on their floor and to generally make sure that the program was progressing as well as possible. For instance, a coordinator in one building prepared newsletters for the tenants regarding their progress toward achieving the 90% target. As well, this individual was responsible for keeping track of the inevitable turnover in tenants in order to ensure that the 90% rate was maintained.

The responsibilities of the floor captains were concerned mainly with signing up individual tenants and providing them with the engraver to mark their property. This job also involved a certain amount of record keeping to ensure that as many individuals on their floor as possible were active participants in the program. Many of these individuals went to considerable lengths in their efforts to sign up their neighbors. Included here were manning tables in the hall beside the elevator during high-traffic periods when they

could expect to contact a maximum number of their neighbors. Along with the coordinator, these individuals also provided a communications link between the tenants and building management, helping to keep Minto informed of ongoing problems in the buildings. Finally, the coordinators and floor captains distributed pamphlets and other crime prevention information materials to their fellow tenants.

According to the rules of the Apartment Watch program (modeled directly on those of Neighborhood Watch), when 90% of the occupied apartments in a building were signed up, a sign unveiling ceremony was held. The sign in question was a large sign placed prominently outside the building indicating that the tenants of the building were Apartment Watch participants.

Achieving the 90% participation target did not prove to be easy. In the short term, only one of the five apartment buildings at Heron Gate was able to meet this target, and after the sign unveiling, even this one building had difficulty maintaining the 90% level. Several explanations for this difficulty have been offered. Prominent among them are general apathy and lack of interest among the tenants and the difficulty in recruiting and retaining both coordinators and floor captains. Related to both of these concerns is the fact of tenant turnover. In the one building that did obtain the 90% target, it was estimated that over 40% of the apartments had changed hands during the first year of the program. Of course, the impact of this turnover was greatest when it affected coordinators and floor captains. Even among individuals who have not moved, it appears that "burnout" is a threat to the continuity of the program, as one would expect from any program involving volunteers.

Target Hardening

One general and pervasive effect of the Crime Prevention Demonstration Project was an increased awareness on the part of building superintendents of the need for them to be alert for and responsive to opportunities to reduce crime in their buildings. This might take the form of checking for proper operation of garage and exterior doors or of being watchful for loiterers in the hallways or lobbies of the buildings. More specifically, Minto made the following "target hardening" improvements to Heron Gate:

- Apartment doors were equipped with 1-inch dead-bolt locks and wide-angle viewers. Door frames were reinforced.

- The locking mechanism on the lobby doors was strengthened.
- Apartment numbers were removed from the lobby index board to prevent potential thieves from identifying vacant apartments by randomly trying many numbers. Following tenant complaints about problems with lost visitors and deliveries, the numbers were replaced. Any indication of tenant marital status or gender was, however, removed.
- Deadbolt locks on balcony doors and upgraded latches on lower floor windows were replaced at tenant request.
- Exterior lighting was increased.
- Shrubbery near windows was trimmed so as not to conceal potential burglars.
- Mailbox windows were blacked-in so that it would not be possible to identify apartments where the tenants were away due to an accumulation of mail.
- Lockers were strengthened and access to the locker room was restricted to specified hours.
- Signs were installed in the lobbies prohibiting soliciting in the building.
- The door to the laundry room was altered such that it could not be locked from the inside. The objective was to prevent a mugger or rapist from locking a victim inside the laundry room with him or her.

Given the extent of problems with theft from and damage to cars in the underground garage, a number of steps were taken to try to make the garage more secure. Specifically:

- The timers on the garage doors were set to keep them open for (a reduced) 30 seconds.
- Key-activated switches for garage access were installed.
- Signs warning that criminals would be prosecuted were installed in the garages.
- The garage door power supply was rendered tamperproof.
- The garage walls were (partially) whitewashed in order to eliminate dark corners where vandals might conceal themselves. This work was to be completed in subsequent years.

Although upgrading the security of the apartment doors represented a sizable investment in labor and materials (\$50 per unit), most of the other changes were accomplished at little extra expense. Many represented either one-time-only labor expenditures or alternations to maintenance procedures by Heron Gate Staff.

Findings

Presentation of the findings is divided into three main sections. The first section discusses the level of tenant awareness and participation in the program as reflected in the responses to the post-implementation survey of tenants. The second section presents a comparison of the pre- and postsurvey responses of tenants to questions that were presented in both surveys. The findings conclude with a presentation of police occurrence data for selected offenses covering the period of mid-1984 through the beginning of 1988.

Tenant Awareness of, and Participation in, the Apartment Watch Program

The postprogram survey of tenants posed several questions aimed at gauging the level of tenant awareness of and participation in the Apartment Watch program. Our findings on these issues were as follows:

- Eighty-four percent of tenants reported that they had heard of Operation Identification on the postsurvey. This figure represents an 8% increase from the findings of the preprogram survey.
- Among those who had heard of Operation Identification, 65% of the postsurvey respondents reported that their household participated in Operation Identification. The corresponding rate from the presurvey was 12%.
- Ninety-two percent of respondents on the postsurvey reported that they had heard of Neighborhood Watch or Apartment Watch. The presurvey figure was not significantly different.
- Among those who had heard of Neighborhood Watch or Apartment Watch, 71% of respondents on the postsurvey indicated that they were aware that Neighborhood Watch or Apartment Watch was operating in their apartment building.
- Among those who were aware that the program was operating at Heron Gate, only 47% of postsurvey respondents reported that their household participated in the Apartment Watch program. The corresponding figure from the presurvey was only 3%, reflecting the fact that the program in question was not in operation at the time of the preprogram survey.
- Among households participating in Apartment Watch, the specific activities that they were involved in as part of this participation included engraving

property (26%), attending meetings with neighbors (11%), watching neighbors' apartments while they are away (12%), and staying alert for strangers in the building (16%).

- Among all tenants responding to the postsurvey, 60% reported that they had received a crime prevention information package. Most of these packages had been delivered to the tenant's door or handed out in the lobby or at a meeting in the building.
- Sixty-three percent of respondents to the postsurvey reported being aware that meetings or lectures had been held in the building to discuss crime or security problems. Of these persons, approximately one-third had attended one or more of the meetings or lectures.

Taken together, these data presented a picture of a program that was quite successful in its efforts to make the Heron Gate tenants aware of its existence and activities. Unfortunately, the program was not as successful in recruiting tenants as active program participants. The comparatively low level of reported participation in Apartment Watch was consistent with the difficulties noted above in achieving the 90% sign-up target for qualification as an Apartment Watch building.

Comparison of Pre- and Postsurveys of Tenants

The great majority of the questions on the preprogram survey of tenants were repeated verbatim on the postsurvey. Data from the two surveys were combined into one file for analysis, and statistical tests were conducted to identify significant differences between the pre- and postsurvey response patterns. In the remainder of this section, we present data for all questionnaire items where a significant change between the pre- and postsurveys was observed:

- The perception that the neighborhood had a high amount of crime increased from 16% to 23%.
- The perception that the apartment building was an area with a low amount of crime changed from 50% to 30%, while the perception that it was an area with an average amount of crime shifted from 29% to 51%.
- The proportion of tenants reporting that there is a serious crime problem in their building increased from 23% to 35%. Most of this increase can be attributed to a change in the perceived frequency

and seriousness of vandalism and theft from motor vehicles.

- With respect to the level of crime in Ottawa, the proportion of tenants who view it as increasing dropped from 61% to 35%, while the proportion who see the rate as staying the same over the past year or two increased from 28% to 54%.
- With respect to changes in the level of crime at Heron Gate, 13% of postsurvey respondents saw the level as decreasing compared to 4% of presurvey respondents.
- When asked about the chances that a neighbor would notice if someone tried to break into their unit, 14% of presurvey respondents reported the chances as excellent or good. This figure increased to 21% on the postsurvey.
- When asked how safe a tenant would feel walking alone in their neighborhood after dark, the proportion reporting that they would feel either very safe or somewhat safe dropped from 76% to 56%.

Taken together, these data described a situation in which the changes over the course of the program were such that crime is more often seen as a serious problem in the neighborhood and in the buildings, but, paradoxically, where the longer-term trend is toward a decrease in crime levels both at Heron Gate and, more generally, in Ottawa. Support for the hypothesis that the efforts of the coordinators and floor captains should increase the level of watchfulness for one's neighbors was provided by the finding of an increase in the perceived chance that a neighbor would notice a break-in at a respondent's apartment.

It was perhaps to be expected that a broad scale crime prevention effort such as Apartment Watch would have the effect of making the tenants believe that crime in the complex is a more serious problem than they might previously have thought it to be. Although an unreasonably high level of fear or crime was clearly not to be desired, the impact of raising the tenants' level of concern to a realistic one may have led them to be more interested in participating in Apartment Watch than they might otherwise have been. As well, it may have led other tenants to take more precautions to both protect their own property and be aware of general security concerns in the building. Aside from these few limited impacts of the program on the survey responses, it was apparent that the impact of the program on tenants was relatively modest. Again, this ought not to be surprising given the high level of tenant turnover in the buildings and the low level of tenant participation in the program in all but one of the buildings.

Police Data for Selected Offense Types

With the assistance of the Ottawa Police Force, we were able to monitor data on all calls for police service originating at Heron Gate during the period of March 1985 to February 1988 inclusive. To present a clear comparison between the profiles of crime reported to the police prior to and following the implementation of the crime prevention efforts, we separated out the police data for two 12-month periods. The first period defined was March 1985 to February 1986 (preimplementation). The second period was March 1987 to February 1988 (postimplementation). *Table 1* presents total counts of each of a range of occurrence types reported during each of these 12-month periods.

Examination of *Table 1* reveals that the only substantial change in the frequency of crimes reported from the pre- to postcomparison periods concerned break and enters. There was, in fact, a dramatic drop from 44 per year to only eight per year. This change represented a reduction of 82% in the number of reported break and enters.

The reported frequencies of the other offense types remained largely unchanged from the pre- to postperiods. The only other potentially interesting changes concerned property damage (the totals for which changed from 39 to 50) and theft from autos (the totals for which changed from 100 to 90). However, since most damage reports involve vehicles, including many break-ins where nothing was taken, we were inclined to sum the totals for these two offense categories.

Table 1. Type and Frequency of Police Occurrence Reports Originating at Heron Gate during the Periods of March 1985 through February 1986 (Inclusive) and March 1987 through February 1988 (Inclusive)

Type of Occurrence	Frequency	
	3/85-2/86	3/87-2/88
Break and enter	44	8
Property damage (including cars)	39	50
Auto theft	18	19
Theft from auto	100	90
Other theft	21	22
Assault	7	3
Sexual offenses	4	2
Domestic disputes	4	10
Threats/harassing telephone calls	7	7
Other violent offenses	1	1
Other	3	4
Total	248	216

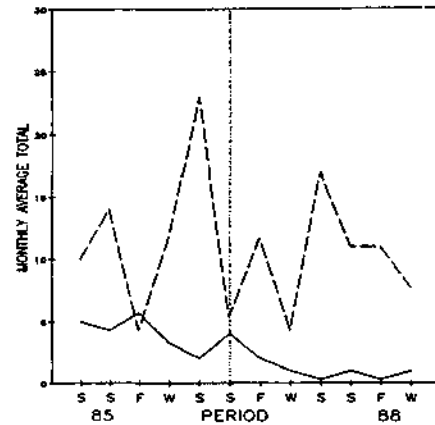


Figure 1. Monthly average numbers of reported break and enters and offenses against vehicles at Heron Gate from spring 1985 through winter 1988: (—) break and enters; (---) vehicle offenses.

Doing so yields combined totals of 139 (39 + 100) for the preperiod and 140 (50 + 90) for the postperiod. On the basis of these figures, we concluded that no change in the frequency of offenses against vehicles occurred during the study period.

For the purpose of tracking trends in crime data, only three types of offenses occurred with sufficient frequency to support any meaningful analysis. These were break and enters of apartments, theft from vehicles, and damage to vehicles. Given the close relationship between theft from and damage to vehicles (much of the damage occurred secondarily in an attempt to find something worth stealing in the vehicle), we have combined these two types of offenses into one category called "offenses against vehicles."

Figure 1 presents monthly average numbers of break and enters and offenses against vehicles from the spring of 1985 through the winter of 1988 inclusive. Data from individual months were averaged over 3-month "seasons" in order to smooth some of the exceptionally high and low monthly totals. We have somewhat arbitrarily identified the summer of 1986 as the start point for the crime prevention activities undertaken at Heron Gate. This "intervention point" is designated in *Figure 1* by a dotted line.

Examination of *Figure 1* reveals two main findings. The first is of a substantial change in break and enters over the period of study, from a monthly average of approximately five in early 1985 to an average of less than one through 1987. We believe that this drop is due, in large part, to the efforts of both Minto and the tenants to render the apartments more difficult to break into and, through the engraving activities, to

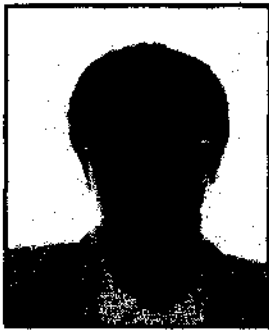
make the property in the apartments less attractive to potential thieves.

The picture presented in *Figure 1* with respect to offenses against vehicles is not so encouraging. Over the course of the project, the average rate of occurrence of those offense types appears largely unchanged. The most striking feature of these data is their variability, from a peak of 23 per month to a low of five. This reflects the dramatic impact on the monthly totals of "rashes" of vehicles offenses that often occur over the course of a single night. The fact that large numbers of vehicles are "available" to be broken into in the underground garages presents the opportunity for one or two individuals to generate what looks like a minor "crime wave" in a matter of a few hours.

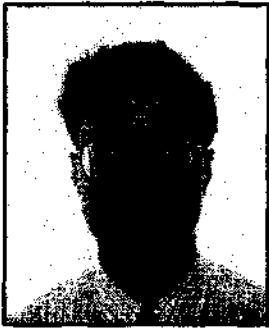
It is apparent that the steps taken to improve security in the garages (tighter access controls, signage, and brighter lighting) were not sufficient to prevent the offenses occurring there. It may have been the case that some of the offenses were the work of residents of the building. Short of providing 24-hour supervision of these garages, this is not a problem that lends itself to ready solutions.

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