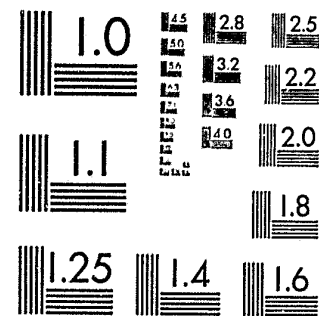


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PORTLAND POLICE BUREAU  
PATROL SUPPORT DIVISION  
CRIME PREVENTION DETAIL

EVALUATION OF THE HOME SECURITY PROGRAM  
A 3 YEAR FOLLOW-UP STUDY

March, 1983

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Commissioner of Public Safety

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**SUMMARY**

- Of 300 homes site-hardened in 1978, only 13 forced entry burglaries were reported during a 3 year follow-up period.
- A reduction of 62% in the forced entry burglary rate was found between the pre site-hardening 36 month period and the post site-hardening 36 month period.
- The 13 forced entry burglaries reported during the follow-up period represented an annual rate of 1.4 burglaries per 100 households. The City-wide forced entry burglary rate during this same time period was approximately 3.0 per 100 households.
- Windows were the points of entry in 7 of the 13 forced entry burglaries reported during the 3 year follow-up period. Doors were the entry points in the remaining 6 burglaries.
- An analysis of these 13 burglaries revealed that in a majority of the cases, the doors and windows were broken after site-hardening materials had prevented an easier entry into the homes.

## EVALUATION OF THE HOME SECURITY PROGRAM

### A Three Year Analysis of the Effectiveness of Basic Residential Site-Hardening Methods

The Portland Police Bureau offers crime prevention programs in four main areas: Elderly Victimization Prevention, Sexual Assault Prevention, Commercial Security and Residential Security. One of the major residential crime prevention programs in the area of Residential Security is the Home Security (Locks) Program. This program is a site-hardening project which provides free locks and security hardware installation to low-income homeowners in designated Portland neighborhoods.

In 1979, the Portland Police Bureau's Crime Prevention Detail began an evaluation of several hundred households which had been site-hardened during the previous year as part of the Home Security Program. Two evaluations<sup>1, 2</sup> of the program found a significant reduction in the burglary rate between pre and post site-hardening periods. Of interest, this degree of burglary reduction was found even though all of the households analyzed had not fully complied with all site-hardening recommendations. For example, some homeowners declined for aesthetic reasons to have expanded metal screen placed over their basement windows. For similar reasons homeowners occasionally elected not to have their ground level windows pinned.

The purpose of the present evaluation is to assess the burglary rates for homes during a three year period following site-hardening. This analysis will include only those households which fully complied with the program's site-hardening recommendations.

#### PROGRAM BACKGROUND

The Home Security Program is directed by the Portland Police Bureau's Crime Prevention Detail, however, funding for the program is provided by the Community Development Block Grant Program administered by the Department of Housing and Urban Development. The local agency responsible for the block grant program is the City of Portland Bureau of Community Development.

Program eligibility requirements as to homeowner's income, location of house, and related factors are the responsibility of the Bureau of Community Development. A number of criteria based on community demographics<sup>3</sup> are utilized in establishing these eligibility requirements. Currently, all or portions of 25 Portland Neighborhood Associations have been given Housing and Community Development (HCD) program designation which permits qualifying residents to participate in the Home Security Program.

Homeowners meeting these program requirements receive an initial Residential Security Survey (see Appendix for a copy of the Survey) as to the security needs of their homes. Site-hardening materials are then installed based on the Survey recommendations.

An average site-hardening job consists of installing two single cylinder deadbolt locks, pinning 7 - 8 windows, and placing expanded metal screen on 4 windows. In addition, hollow core doors which cannot be made otherwise secure are replaced with solid core doors. Recommendations are also made to the homeowner as to proper outside lighting and landscaping in order to reduce the number of windows and doors which are hidden from normal view.

Elderly citizens are the program's primary beneficiaries. For example, 75% (N=644) of those individuals receiving program services from July, 1981 to June, 1982 were elderly. 25% of the program participants were members of the minority community. 65% of the homes site-hardened during this time period were classified as having a "Female Head of Household", and 6% of the households indicated that the head of the household was disabled.

#### PROCEDURE

Home Security (Locks) Program "work completion" forms were reviewed for homes site-hardened during May - December, 1978. This time period was randomly selected. All households which fully complied with the site-hardening recommendations were selected (N=300).

Portland Police Bureau computer records (specifically the Columbia Region Information Sharing System, CRISS) were then checked for these 300 households. The time periods investigated were: (1) 3 years (25 - 36 months) prior to site-hardening date; (2) 2 years (13 - 24 months) prior to site-hardening date; (3) 1 year (1 - 12 months) prior to site-hardening date; (4) 1 year (1 - 12 months) after site-hardening date; (5) 2 years (13 - 24 months) after site-hardening date; and (6) 3 years (25 - 36 months) after site-hardening date. For each household, burglary record checks were based on the exact site-hardening date of that household in order to permit equal assessment periods for all 300 households.

#### RESULTS

Table 1 contains the number of reported forced entry burglaries for all 300 homes up to 1, 2, and 3 years prior to site-hardening and up to 1, 2, and 3 years following site-hardening. As seen in Table 1, a total of 13 forced entry burglaries were reported during the 3 year period following site-hardening. By contrast, 34 forced entry burglaries were reported during the 3 year pre site-hardening time period. This observed decrease of 62% in the burglary rate is probably not due to chance ( $z = 3.2, p < .05$ ).

**Table 1**  
Comparison of Reported Burglary Rates  
Before and After Site-Hardening

<u>Time Period: Up To</u>	<u>Number of Homes with One or More Forced Entry Burglaries</u>	<u>Number of Homes Not Burglarized</u>
3 years prior to site-hardening date	9	291
2 years prior to site-hardening date	11	289
1 year prior to site-hardening date	14	286
1 year following site-hardening date	6	294
2 years following site-hardening date	2	298
3 years following site-hardening date	5	295

The 13 forced entry burglaries reported during the 3 year follow-up period represent a yearly average of 1.4 burglaries per 100 households (or 1 in 71). By comparison, the City-wide forced entry burglary rate during this same time period was approximately 3.0 per 100 households (or 1 in 33).

The data found in Table 1 show that the reported forced entry burglary rate 3 years (25 - 36 months) after site-hardening increased compared to the rates found 2 years after participation in the program. This burglary increase translates into an increase of 0.7 forced entry burglaries per 100 households to 1.7 forced entry burglaries per 100 households. Comparable City-wide rates also increased during this time period (approximately 55%). However, the resulting third year period rate for the site-hardened homes was less than that for the City (1.7/100 households versus 4.3/100 households).

As stated in previous evaluations,<sup>1, 2</sup> this burglary rate decrease must be viewed in the context of two factors. The first factor is that many households request locks shortly after being victimized, thus the reported rate of burglary for this self-selected group could be artificially high preceding the installation of the locks (that is, the period of 1 - 12 months prior to site-hardening). For example, a previous study found that 56.5% of the households reporting crimes did so four months or less before the site-hardening.<sup>4</sup> A second factor of consideration is that studies<sup>5, 6, 7</sup> have indicated that, in most cases, the reporting rate for burglaries increases after participation in crime prevention activities.

With respect to the first factor however, data analysis (see Table 1) revealed that the number of reported forced entry burglaries up to 1, 2, and 3 years after the site-hardening date was also less than the number of reported burglaries up to 2 and 3 years prior to the site-hardening date. Related to the second factor, the reported rate of burglary following the lock installation could be more accurate than those reported rates found prior to the site-hardening. It should be noted that recent studies<sup>8</sup> have found that approximately 20% of residential burglaries in Portland are not reported. However, information<sup>6</sup> suggests that Portland citizens who participate in crime prevention activities by installing locks or other security devices report approximately 97% of forced entry burglaries to the police. In addition, the address file of the Portland Police Bureau's computerized records system probably underestimates crimes occurring during the evaluation period of 2 and 3 years prior to site-hardening. The above analysis, therefore, suggests that the reported burglary rates up to 2 and 3 years prior to site-hardening could be much higher than the 9 or 11 reported, while the rate following site-hardening is probably a more accurate reporting level.

Table 2 contains an analysis of the methods of entry used in the reported forced entry burglaries following site-hardening.

**Table 2**  
Analysis of Forced Entry Burglaries

<u>Time Period:</u>	<u>Method/Point of Entry</u>
1st Year after site-hardening	<ol style="list-style-type: none"> <li>1. Broke rear window and removed bars on window.</li> <li>2. Removed window screen and forced window (possibly unlocked).</li> <li>3. Broke window after failing to pry window open.</li> <li>4. Uncertain - possibly broke window in door, or through an unlocked second floor window.</li> <li>5. Broke away door around lock.</li> <li>6. Broke door jamb.</li> </ol>
2nd Year after site-hardening	<ol style="list-style-type: none"> <li>1. Broke door jamb.</li> <li>2. Broke window in door and crawled through (door had double cylinder deadbolt lock).</li> </ol>
3rd Year after site-hardening	<ol style="list-style-type: none"> <li>1. Kicked open front door.</li> <li>2. Broke door jamb.</li> <li>3. Broke window.</li> <li>4. Broke window after first attempting to enter via breaking glass in a door, however, a double cylinder deadbolt lock prevented initial entry.</li> <li>5. Kicked in rear door.</li> </ol>

The above analysis indicates that windows were the Points of Entry in 7 of these 13 burglaries, and doors were the entry points in the remaining 6 burglaries. In general, entry via the windows was gained by breaking the window glass. In 4 cases, site-hardening materials appeared to have caused the initial entry attempt to fail. Windows were then subsequently broken. None of these 7 burglaries involved a basement window. It should be noted that expanded metal screen is placed over basement windows as part of the site-hardening procedures.

Three of the 6 entries through doors involved broken door jambs. These entries appeared to be due to failure in the site-hardening materials installed. The homes were site-hardened in 1978. Since that time more effective site-hardening materials have been used in the Home Security Program to prevent the door jambs from being broken. In the remaining 3 burglaries involving door entries, the locks appeared to have held, but the doors gave way.

Two of the 13 forced entry burglaries occurred to the same household (1 burglary occurred during the 2nd year following site-hardening and a second burglary was reported during the 3rd year). In both cases, entries were gained by breaking windows after site-hardening failed to allow entry via a door. The remaining households reported only the single forced entry burglary during this follow-up period. Slightly less than one-half of these households reported burglaries prior to being site-hardened in 1978.

In summary, a review of reported forced entry burglaries indicated that the site-hardening program was having a positive effect on decreasing the burglary rates for the participating households. Of importance, this positive effect was found up to 3 years following site-hardening.

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4. Evaluation of the Home Security Program, Portland Police Bureau, Crime Prevention Unit, Portland, Oregon, 1979.
5. Evaluation of the City of Portland's Crime Prevention Bureau Program, Office of Justice Programs, Portland, Oregon, 1977.
6. An Evaluation of Crime Prevention in the City of Portland: Draft Report, Office of Justice Planning and Evaluation, Portland, Oregon, 1981.
7. Cirel, P., Evans, P., McGillis, D., and Whitcomb, D. An Exemplary Project: Community Crime Prevention, Seattle, Washington. Washington, D.C.: National Institute of Law Enforcement and Criminal Justice, U.S. Department of Justice, 1977.
8. 1982 Neighborhood Information Profiles Report, Office of Fiscal Administration, Services Research Division, Portland, Oregon, 1982.

Data Retrieval Operator for this project: Delores Gleich

**A P P E N D I X**

**Portland Police Bureau  
Residential Security Survey**

Date \_\_\_\_\_

Name \_\_\_\_\_ Age \_\_\_\_\_ Income \_\_\_\_\_

Address \_\_\_\_\_ Home Phone \_\_\_\_\_

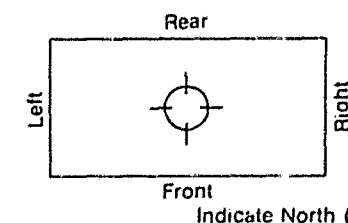
Work Phone \_\_\_\_\_

Owner/Mgr. \_\_\_\_\_ Phone \_\_\_\_\_

Single Family Residence  Apartment  Other  Number of floors \_\_\_\_\_

Prior Burglary No  Yes  Number of Times \_\_\_\_\_

Date of Burglary \_\_\_\_\_ Point of Entry \_\_\_\_\_



Number Key and Security Recommendations on Back

<p><b>Front</b></p> <p>Doors _____</p> <p>Locks _____</p> <p>Frame _____</p> <p>Strike Plate _____</p> <p>Windows _____</p>	<p><b>Right Side</b></p> <p>Doors _____</p> <p>Locks _____</p> <p>Frame _____</p> <p>Strike Plate _____</p> <p>Windows _____</p>	<p><b>Lighting/Landscaping</b></p> <p>Front _____</p> <p>Left Side _____</p> <p>Rear _____</p> <p>Right Side _____</p>
<p><b>Left Side</b></p> <p>Doors _____</p> <p>Locks _____</p> <p>Frame _____</p> <p>Strike Plate _____</p> <p>Windows _____</p>	<p><b>Basement</b></p> <p>Doors _____</p> <p>Locks _____</p> <p>Frame/ Strike Plate _____</p> <p>Windows _____</p> <p>Vent/Fuel _____</p>	<p><b>Miscellaneous</b></p> <p>Ladders _____</p> <p>Tools _____</p> <p>Bicycles _____</p> <p>Address Visible _____</p> <p>2nd Floor _____</p> <p>Crawl Space _____</p> <p>Alarms _____</p> <p>Smoke Detectors _____</p> <p>Property Engraving (Format OR _____ DL)</p>
<p><b>Rear</b></p> <p>Doors _____</p> <p>Locks _____</p> <p>Frame _____</p> <p>Strike Plate _____</p> <p>Windows _____</p>	<p><b>Garage</b></p> <p>O.H. Door _____</p> <p>Other Doors _____</p> <p>Locks _____</p> <p>Frame/Strike Plate _____</p> <p>Windows _____</p>	

**Comments** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

This report is advisory only and DOES NOT purport to list all hazards or the adequacy of present hazard controls.

Occupant _____	Officer/C.P. Rep. 9	BPST No. _____	District _____
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## RESIDENTIAL SECURITY RECOMMENDATIONS

1. All exterior doors should be of solid construction, a minimum of 1-3/4" thick.
2. All exterior doors with exposed hinge pins should have non-removable or welded pins.
3. All solid exterior doors should be equipped with a wide angle viewer (180° min scope) to allow occupant to view any visitor without opening the door.
4. All exterior doors should be secured with a double cylinder or single cylinder dead bolt lock, with a minimum 1" bolt throw and a steel cylinder guard.
5. All exterior doors with glass panels should use a double cylinder dead bolt lock, same specifications as #4. (when locking from the inside, leave the key in the lock in case an emergency exit is required). (See recommendation #6 also).
6. Glass may be replaced or covered with burglar resistant glazing, such as polycarbonate glazings (unbreakable plastic).
7. Door frames should be reinforced by adding shims between the door frame and studs where necessary.
8. Reinforced strike plates and strike boxes must be used with any good dead bolt lock. Use screws of sufficient length (2½" to 3") to reach into studding.
9. Sliding glass doors and windows should be equipped with an auxiliary dead locking device. Doors or windows which slide on the inside track may be secured with a charlie bar or broom handle laid in the track (should fit snugly). Two large screws placed in the upper track will prevent the door or window from being lifted out when in the closed position.
10. Double hung windows may be secured by drilling a hole on a downward slant through the upper corners of the inside sash and part way into the outer sash. Nails or metal pins placed in these holes will prevent forcing the window.
11. Garage doors may be secured by placing a case hardened padlock on the existing locking bar or roller track to prevent the garage door from being opened from the inside. Doors with panels less than ½" thick should be replaced or reinforced.
12. Basement windows should be secured with strong ornamental grills, screens or bars, (these should not be used if the area is used as a bedroom).
13. Lighting: Care should be given to provide adequate lighting to the exterior of the residence, particularly in areas offering concealment. The address should be illuminated during hours of darkness making it viewable from the street.
14. Landscaping: Avoid the placing of decor which may offer concealment to a potential burglar. Existing plants should be trimmed or removed to expose doors, windows and basement access.
15. Engrave all personal property with your drivers license number and record all serial numbers. Social Security numbers are not recommended, as federal law prohibits their disclosure. Post warning label in conspicuous places.
16. Alarms: Installation of an alarm system is a personal decision each resident must make, considering what is to be protected vs. the cost of the system. Multnomah County requires an alarm user permit for any alarm that is intended to solicit a police response. For information on types of alarm systems available contact the Crime Prevention Division or your Precinct Crime Prevention Officer. (See Below)
17. Smoke detectors should be located in the corridor giving access to the room(s) used for sleeping purposes.

East Precinct 248-5696

North Precinct 248-5720

Central Precinct 248-5637



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**END**