REPORT OF THE VIRGINIA STATE CRIME COMMISSION

# **Building Code Security Needs**

TO THE GOVERNOR AND THE GENERAL ASSEMBLY OF VIRGINIA



# House Document No. 12

COMMONWEALTH OF VIRGINIA RICHMOND 1989



## COMMONWEALTH of VIRGINIA

POST OFFICE BOX 3-AG **RICHMOND, VIRGINIA 23208** 

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MEMBERS:

FROM THE SENATE OF VIRGINIA: ELMON T. GRAY, CHAIRMAN HOWARD P. ANDERSON ELMO G. CROSS, JR.

FROM THE HOUSE OF DELEGATES: ROBERT B. BALL, SR., VICE CHAIRMAN V. THOMAS FOREHAND, JR. RAYMOND R. GUEST, JR. A. L. PHILPOTT WARREN G. STAMBAUGH CLIFTON A. WOODRUM

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ATTORNEY GENERAL'S OFFICE H. LANE KNEEDLER

October 18, 1988

The Honorable Gerald L. Baliles, Governor of Virginia, TO: and Members of the General Assembly:

> House Joint Resolution 64, agreed to by the 1988 General Assembly, directed the Virginia State Crime Commission to study the security needs of the Uniform Statewide Building Code. In fulfilling this directive, a study was conducted by the Virginia State Crime Commission. I have the honor of submitting herewith the study report and recommendations on Virginia's Building Code Security Needs.

Chairman

ETG: tes

**ENCLOSURE** 

## Members of the Virginia State Crime Commission

## From the Senate of Virginia:

Elmon T. Gray, Chairman Howard P. Anderson Elmo G. Cross, Jr.

## From the House of Delegates:

Robert B. Bàll, Sr., Vice Chairman V. Thomas Forehand, Jr. Raymond R. Guest, Jr. Speaker A. L. Philpott Warren G. Stambaugh Clifton A. Woodrum

## Appointments by the Governor

Robert C. Bobb Robert F. Horan, Jr. George F. Ricketts, Sr.

## Attorney General's Office

H. Lane Kneedler

## Subcommittee

## studying

Building Code Security Needs

## Members:

Delegate Robert B. Ball Sr., Chairman Senator Elmo G. Cross, Jr. Delegate V. Thomas Forehand, Jr. Reverend George F. Ricketts, Sr. Mr. Robert C. Bobb

## Staff:

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## I. Authority for Study

The current Virginia Uniform Statewide Building Code sets construction standards so as to ensure a building's safety but contains few standards which would secure a building from crime. National studies have demonstrated the success of reducing and preventing crime by constructing buildings less vulnerable to criminal intrusion. House Joint Resolution 64 of the 1988 General Assembly requests the Virginia State Crime Commission to study the security needs of the state's building code. This legislation was introduced by Delegate James F. Almand of Arlington at the request of the Virginia Crime Prevention Association.

§9-125 of <u>Code of Virginia</u> establishes and directs the Virginia State Crime Commission (VSCC) "to study, report, and make recommendations on all areas of public safety and protection". §9-127 of the <u>Code of Virginia</u> provides that "The Commission shall have duty and power to make such studies and gather information in order to accomplish its purpose, as set forth in §9-125, and to formulate its recommendations to the Governor and the General Assembly". §9-134 of the <u>Code of Virginia</u> authorizes the Commission to "conduct private and public hearings, and to designate a member of the Commission to preside over such hearings". The VSCC, in fulfilling its legislative mandate, undertook the Building Security Needs Study as requested by House Joint Resolution 64.

## II. Subcommittee Members Appointed

During the April 19, 1988 meeting of the Crime Commission, Senator Gray appointed Delegate Robert B. Ball, Sr. of Richmond to serve as chairman of the subcommittee on Building Code Secutive Needs. Members of the Crime Commission who served on the Subcommittee are:

Delegate Robert B. Ball, Sr. of Henrico, Chairman Senator Elmo G. Cross, Jr. of Hanover Delegate V. Thomas Forehand, Jr. of Chesapeake Reverand George F. Ricketts, Sr. of Richmond Mr. Robert C. Bobb of Richmond

## III. Scope of the Study

This study examines building security needs in Virgnia. The study was conducted by the Crime Commission with staff support from the Department of Criminal Justice Services (DCJS) and the Department of Housing and Community Development (DHCD) which administers the building code.

The subcommittee expresses its appreciation to Mr. Patrick Harris, Criminal Justice Analyst of DCJS; Mr. Curtis L. McIver, State Building Code Administrator; and Mr. Harold A. Wright, Executive Director of the Virginia Crime Prevention Association for their significant contributions to this study.

The Virginia Crime Prevention Association (VCPA) researched methods of crime prevention through improving building security and suggested that security become a part of the Uniform Statewide Building Code's general purpose as described in the Code of Virginia.

In addition the VCPA has put together a list of security requirements which it recommended be added to the Building Code. The subcommittee evaluated the security needs of the Virginia Statewide Building Code and considered the advantages and disadvantages of the proposals submitted by the VCPA.

## IV. Executive Summary and Recommendations

The full Crime Commission met on October 18, 1988 and received the report of the subcommittee. After careful consideration, the findings and recommendations of the subcommittee were adopted by the Commission. The Crime Commission subcommittee researched numerous studies conducted nationwide and heard testimony on crime prevention through building codes and environmental design. These studies and testimony demonstrated that incorporation of crime prevention into the construction phase of buildings can be very successful.

The Virginia Crime Prevention Association (VCPA) put together a list of security requirements which it recommended be added to the Building Code. These recommendations were put together with input from both law enforcement and fire safety officials and were influenced greatly by a former Arlington County building security ordinance, and were submitted to the Crime Commission for consideration in this study. (See Appendix B)

The VCPA's list of recommendations met with mixed reactions. In a well-attended public hearing on July 20, 1988, law enforcement agencies, fire service representatives, and building inspectors among others, testified. Law enforcement officials have shown unanimous support for the proposals. Fire safety officials approve of the recommendations but have expressed concern over continued focus on security and crime prevention. They are concerned that these recommendations may start a trend of future security requirements less sensitive to fire safety needs. As homes become more secure, they fear that fire officials may have more trouble entering a building during a fire and occupants may have more trouble exiting. These concerns may be alleviated if law enforcement and fire services work together in monitoring security standards.

Builders expressed concern over potential increased costs in construction resulting from the additional requirements. Additionally, building inspectors argue that the proposed security requirements would be too difficult to enforce.

After the public hearing, the VCPA revised its recommendations to alleviate some of the concerns raised and presented the revision at the final meeting of the subcommittee on September 1, 1988. Some of those assisting with the study who had expressed concern with the original set of recommendations welcomed the revisions but still had reservations.

After considering the current law, the other studies conducted in Virginia and nationwide, input from the public hearing and from others assisting with the study, the subcommittee was convinced that crime prevention through environmental design is a very important aspect of public safety. Indeed, research has shown that prevention of residential burglary reduces crimes of violence.

The Board of Housing and Community Development has specific building code proposals from the VCPA currently under consideration pursuant to the Administrative Process Act. The subcommittee strongly encourages the Board to

incorporate such crime prevention security requirements, as it deems feasible, into the Uniform Statewide Building Code. The subcommittee concluded that examining the intricacies of construction components was beyond the scope of this legislative study and is properly handled by the Board.

On the second issue, the VCPA requested the amendment of §36-99 of the Code of Virginia to place the word "security" in the provision describing the purpose of the Uniform Statewide Building Code. After careful consideration, the subcommittee was convinced that the current language which includes the word <u>safety</u> already enables crime prevention measures to be placed in the Building Code. Indeed, the Board is currently considering such measures. Therefore, the subcommittee did not recommend amending §36-99 of the <u>Code</u>.

## V. Work of the Subcommittee

The subcommittee held three meetings, including one public hearing. Additionally, research was conducted as to the current law and other published research was reviewed. Following is a brief summary of the information considered by the subcommittee.

## Applicable Laws

## A. Uniform Statewide Building Code:

The Building Code is contained in §\$36-97 through 36-119 of the Virginia Code. These sections set standards for the construction of buildings in Virginia. The dominant purpose of the Building Code is to "provide comprehensive protection of the public health and safety." Virginia Code §36-99, (see, VEPCO v. Savoy Construction Co., 224 Va 36 (1982)). The Building Code does not presently include crime prevention standards.

## B. Virginia Residential Landlord and Tenant Act:

The Landlord-Tenant Act is contained in Va. Code §55-248.4 through §55-248.31. This act outlines the landlord's duties to his tenants regarding safety. Traditionally, this act has not been interpreted to include a duty of care by the landlord for ciminal acts by unknown parties. The act does however provide some security standards.

## C. Chapter 500 of the 1988 Acts of the General Assembly:

## An Amendment to the Landlord-Tenant Act.

Delegate James Almand patroned House Bill 768 which passed into law as Chapter 500. This amendment to the Landlord-Tenant Act (specifically §55-248.4 and §55-248.13:1) adds various security requirements for the landlord to meet in order to provide tenants with secure residences.

## Parallel Studies and Reports Reviewed

1. INTRODUCTION TO CRIME PREVENTION (Virginia Crime Prevention Center)

As its title suggests, this publication introduces the layman to various methods of crime prevention. First, it outlines and defines the elements of crime prevention: anticipation, recognition, appraisal and action. Next, it identifies a home's points of entry and explains how intruders can gain access through each one. Suggestions are offered on how to help secure each point of entry. The Introduction's focus then shifts to businesses. Additional information relevant to crime prevention in a commercial setting is presented.

This publication is extremely helpful in understanding the types of locks available and which are efficient barriers to criminal intrusion.

2. REPORT OF THE STATE CRIME COMMISSION ON DEADBOLT LOCKS (Virginia State Crime Commission)

The General Assembly in SJR 160 of the 1975 session directed the Virginia State Crime Commission (VSCC) to "study the feasibility and necessity of requiring certain landlords to provide deadbolt locks and peepholes ... for their tenants." The VSCC made several findings:

- -65% of all burglary entry attempts were directed at doors.
- -85% of all burglaries were committed by inexperienced or semi-skilled burglars, most likely attracted by inferior or improperly applied locking devices.
- -Properly installed and used, deadbolt locks increased the time necessary to gain entry from five seconds to four minutes.
- -Double cylinder deadbolt locks which met the recommended requirements of the Richmond Police Department for residential security ranged in price from \$16.00 to \$37.00.
- -The majority of apartment buildings in Virginia did not provide deadbolt locks, but allowed them installed if the tenant bore the expense and left a key on file at the office.
- -Arlington County's unique ordinance required landlords to provide deadbolt locks on all apartment doors regardless of date of construction. This ordinance has since been overturned by judicial order.
- -Many deadbolt locks are poorly made and afford little protection. Examples are as follows:
- (1) "A deadbolt lock having a throw of less than one inch may be defeated by pushing the jambs and thereby spreading the frame and releasing the bolt from the strike hole.
- (2) Deadbolt locks made of cheap soft metals will not resist forced attacks with a hammer, pry bar or other heavy tool.
- (3) Locks lacking a free-turning solid hard metal cylinder guard can be pulled out of the door with a hammer or pry bar.

- (4) A deadbolt without a hard metal security roller is vulnerable to sawing through.
- (5) Cylinders can be removed to permit access to the interior of the lock if the deadbolt does not have a permanent-type cap for installation bolts.

-A HUD handbook on <u>Security Planning for HUD-Assisted Multifamily Housing</u> recommends that deadbolt locks have, "a throw of at least one inch, be constructed of case hardened steel, brass, zinc alloy or bronze ... (and) protuding cylinders should be avoided or protected by a spinner ring, a bevelled ring cylinder guard or escutcheon plate."

-For a deadbolt lock to be effective, the door in which it is installed must be able to resist attack. The VSCC recommended that minimum standards be established for door assemblies.

Concluding the study, the VSCC determined that a statewide regulation which would require landlords to provide deadbolt locks on all apartment doors would be unnecessary. The Commission recommended however, that localities with high burglary rated consider implementing such requirements by local ordinance.

3. REPORT TO THE SECRETARY OF TRANSPORTATION AND PUBLIC SAFETY, DECEMBER, 1984 (Crime Prevention through Environmental Design Committee or CPTED).

The Secretary of Transportation and Public Safety requested the Crime Prevention through Environmental Design committee to "study and identify recognized crime deterring planning, design and construction practices for use in the development or renovation of buildings and exterior/outdoor spaces." The committee compiled its findings and discussed its recommendations in its 1984 report to the Secretary. The committee made the following findings:

- (1) There is a general lack of awareness of crime prevention through environmental design (CPTED).
- (11) Few statutory incentives exist to encourage implementation of CPTED tactics. However, the number of civil suits brought by crime victims are increasing and the awards (averaging \$1,048,063 in 1982) may motivate some businesses to make their buildings more secure.
- (111) Law enforcement personnel are not usually involved in the planning and construction of buildings and neighborhoods for which they will provide services.
- (iv) There are few, if any, requirements concerning security in the educational and training processes which produce architects, designers, community planners and builders.
- (v) Available crime data collection and analyses are inadequate for the identification of physical designs which are particularly conducive to crime or particularly effective in deterring crime.

- (vi) Crime prevention and fire safety can be companion goals but the lack of coordination between interest groups representing each enhances their dichotomous appearance.
- (vii) The state government does not have a uniform CPTED policy applicable to state property or state employees. The absence of such policy at the government level is not conducive to private implementation of CPTED measures.
- 4. CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN: AN INTRODUCTORY HANDBOOK (Virginia Department of Criminal Justice Services)

This handbook was created by the CPTED committee as a result of its 1984 study described above. First, the concept of CPTED is defined: "CPTED is an attempt to reduce crime and fear in a target setting by reducing criminal opportunity and fostering positive social interaction among the legitimate users of that setting." The handbook outlines four approaches: movement control, surveillance, activity support and motivational reinforcement. It then recommends various tactics to prevent crime under each of these approaches. Listed below are some relevant recommended tactics:

## I. Movement Control Tactics

- (1) Reduce the number of entrances
- (11) Designate pedestrian access corridors
- (111) Provide keyed access to sub-environments
- (iv) Limit the number of apartments sharing a corridor
- (v) Control access from firestairs and emergency exits
- (v1) Fence all problem areas
- (v11) Strengthen access point hardware
- (viii) Convert streets to pedestrian use
- (1x) Close off residential streets
- (x) Locate vulnerable areas near sources of natural surveillance
- (x1) Control parking lot access by means of gates and passes
- (x11) Reduce bus-stop congestion
- (x111) Issue parking stickers
- (xiv) Lock store entrances during peak robbery hours
- (xv) Implement security surveys

## II. <u>Surveillances</u>

## A. Observation

- (1) Improve interior and outdoor lighting
- (11) Remove interior and exterior blind spots
- (111) Add windows to interior spaces
- (iv) Locate vulnerable areas near those which are actively used
- (v) Locate key personnel where they can supervise a specific area or activity
- (v1) Provide guard kiosks at major access points
- (vii) Install surveillance devices
- (viii) Encourage the removal of visual obstructions in streets and public areas
- (ix) Coordinate business hours
- (x) Initiate block watch programs
- (x1) Modify patrol levels and procedures

## B. <u>Identification</u>

- Implement a property-marking project
- (11) Install screening devices at entryways
- (111) Establish territorial domains
- (iv) Increase the visibility of detection devices
- (v) Schedule the use of sub-environments
- (v1) Require identification procedures

## C. Reporting

- (1) Provide call systems for remote locations
- (11) Provide toll free emergency telephones
- (111) Train individuals in crime reporting

## III. Activity Support Tactics

- (1) Create indoor and outdoor activity areas
- (11) Diversify land use along a commercial strip
- (111) Make special provisions for facilities that attract undesirables

## IV. Motivational Reinforcement Tactics

- (1) Develop minimum security standards
- (11) Encourage private security initiatives
- (111) Encourage authorities to maintain public areas
- (iv) Improve police-community relations and involve police in crime prevention media campaigns

The handbook also contains physical security guidelines developed by the Arlington County Police Department's Crime Resistance Unit and guidelines for community planning developed by the New River Planning Commission.

### VI. Resources

The following sources contributed their invaluable ideas and opinions to this study:

Virginia Crime Prevention Association

Department of Criminal Justices Services

Department of Housing and Community Development

Virginia State Police

Local Police Departments

Department of Fire Services

Department of Building Inspection

Local Fire Departments

Alexandria Planning Commission

Virginia Building Code Officials

APPENDICES

APPENDIX A

RELEVANT LEGISLATION

## 1988 SESSION **ENGROSSED**

## HOUSE JOINT RESOLUTION NO. 64

House Amendments in [] - February 16, 1988

Directing the Virginia State Crime Commission to study the security needs of the Uniform Statewide Building Code.

Patron-Almand

## Referred to the Committee on Rules

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WHEREAS, crime in the Commonwealth is of great concern to all citizens; and

WHEREAS, approximately 33,000 residential burglaries are reported annually in Virginia 12 with an estimated loss in stolen property of \$22 million; and

WHEREAS, in addition to the loss incurred by citizens in terms of stolen possessions, 14 damaged property and most importantly the loss of a sense of security, all citizens suffer 15 because of expenses incurred by the criminal justice system to investigate, arrest, 16 adjudicate and incarcerate residential burglars; and

WHEREAS, national studies have determined that while 30 to 40 percent of all 18 residential burglaries result from homeowners' failures to close and lock doors and 19 windows, consequently 60 to 70 percent of all residential burglaries involve the failures of 20 security hardware designed to protect the home; and

WHEREAS, the Commonwealth has had in effect for several years a Statewide Uniform 22 Building Code which sets construction standards to be met concerning health, safety and 23 welfare; and

WHEREAS, the existing Statewide Uniform Building Code contains few standards to be 25 met to ensure that adequate security is installed at the time of construction; and

WHEREAS, the International Association of Chiefs of Police adopted a resolution in 1984 27 recommending that "law-enforcement officials participate in the effort to reduce crime 28 through design and encourage construction and architectural professionals to join in 29 reducing property crime through designing and building facilities that reduce the opportunity for crime"; and

WHEREAS, the Commission of Accreditation for Law Enforcement Agencies has issued 32 crime prevention guidelines which require law enforcement agencies to provide: crime 33 prevention input into development and/or revision of zoning policies, building codes, fire 34 codes, and residential and commercial construction building permits; and

WHEREAS, state laws have been adopted pertaining to fire safety, highway safety, child 36 safety and other areas where the aim is to use state law to protect Virginians from costly and unnecessary harm; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Virginia State 39 Crime Commission is directed to study the security needs of the Uniform Statewide 40 Building Code. [The Department of Housing and Community Development shall assist the 41 Crime Commission in conducting the study.] The Commission may employ such means, 42 including the hiring of additional, temporary staff, as it deems necessary to complete this 43 study

The Commission shall complete its study and submit its recommendations, if any, no 45 later than December 1, 1988.

The costs of this study are estimated to be [ \$9,360 \$4,920] and such amount shall be allocated to the Virginia State Crime Commission from the general appropriation to the General Assembly

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## 1988 SESSION

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Clerk of the Senate

Clerk of the House of Delegates

## APPENDIX B

VIRGINIA CRIME PREVENTION

ASSOCIATION'S RECOMMENDATIONS

### RECOMMENDATIONS FROM

### VIRGINIA CRIME PREVENTION ASSOCIATION

## Security Requirements for the Virginia Uniform Statewide Building Code

In Virginia from 1983 through 1987, there were 152,457 reported residential burglaries or an average of 30,491 per year. The value of property stolen during residential burglary in those five years was \$103,125,534, an average loss per year of nearly 21 million dollars. The average loss per residential burglary was nearly \$676. The victim suffers other losses in addition to personal property being stolen. Quite often the cost of the damage committed by the thief during the burglary exceeds the value of the property which is stolen. Some victims lose time from work to handle problems such as repairs and insurance claims. But the greatest loss to the victim is that loss created by the fear of crime and anxiety because of the invasion of privacy which has taken place. Attached is an overview of burglary in Virginia 1983-1987.

Burglary is also the beginning point for many other crimes which take place in the home such as murder, rape, robbery and arson. Here there are many losses which are unmeasurable, such as the loss of a father to his family or the psychological problems which might confront the victim of rape.

Residential burglary also represents a considerable expense to law enforcement in terms of report-taking, investigation, arrest and court appearances. During the years of 1983 through 1987, there were an estimated 26,000 residential burglary arrests or an average 5,200 arrests per year. In 1986 there were 2,952 convictions for all burglary offenses. The cost of these arrested persons in terms of detention, pretrial, trial, sentencing, appeal, and commitment is substantial.

A July, 1987 report "Making Confinement Decisions" produced by the National Institute of Justice estimates the annual total cost for crime at nearly \$100 billion dollars. This figure includes all expenditures relating to crime. Relying on reports of nearly 43 million crimes annually from the National Crime Surevey, the cost of crime is about \$2,300 per crime.

These various cost estimates demonstrate that crime and in particular, residential burglary, takes a great toll on individuals and the criminal justice system. Any activity which reduces crime or more importantly the opportunity from crime to occur can benefit all of society.

Many law enforcement agencies throughout the county offer services which aim to enhance the security of homes and businesses by making recommendations for better locks, doors and windows systems. This is typically known as the Security Survey Program.

Several years ago Arlington County found that homes which had participated in the Security Survey Program experienced a burglary rate 75% less than those not participating, while the burglary rate for participating businesses was 72% less than those businesses not participating.

Many jurisdictions have gone one step further than making recommendations about security by having local or state building codes supplemented with requirements for security to prevent or deter crime.

Orange County, California adopted a security code for its local building code in 1979. A 1984 study found that "the chances of a burglar entering a home by force (except breaking a window) is seven times greater if that home was not constructed following the Building Security Ordinance Standards."

The Orange County security ordinance is reducing crime by making burglary more difficult. Few, if any, homes and businesses are built in Virginia that do not have locks on doors and windows, Unfortunately many burglaries occur because the locks, doors and windows fail to provide reasonable levels of security.

Many homeowners may presume that the locks, doors and windows on their home make them secure, until they have a burglary. The homeowner, once informed, can correct his home security deficiencies, However, the renter is normally dependent upon his landlord to provide adequate security.

The aim of adding security requirements to the Uniform Statewide Building Code is to ensure that adequate levels of security from criminal attack are built into residences and even businesses. Over the years building codes have been used to promote fire safety, structured safety, electrical safety, energy efficiency and handicapped access. Now is the time for the building code to also address the issue of crime and security.

To accomplish the following recommendations are made:

1. Include security as a part of the Uniform Statewide Building Code by amending section 36-99 of the Code of Virginia relating to the provisions of the Uniform Statewide Building Code to say in part:

"The provisions thereof shall be such as to protect the health, safety, <u>SECURITY</u>, energy conservation and water conservation and barrier-free provisions for the physically handicapped and aged."

The word security should also be added to the provisions of the Uniform Statewide Building Code anywhere its main objectives are addressed.

2. Include the following security requirements in the Uniform Statewide Building Code for residential construction.

### VIRGINIA CRIME PREVENTION ASSOCIATION

# MINIMUM RESIDENTIAL SECURITY RECOMMENDATIONS FOR THE

## VIRGINIA STATEWIDE UNIFORM BUILDING CODE

### 1. EXTERIOR DOORS

- 1.1 Solid Core Wood Doors Exterior swinging wood doors shall be solid core and shall be a minimum of 1 3/4 inches thick.
- 1.2 Metal Doors The thickness of the sheet metal used in the construction of a metal door shall be no thinner than 18 gauge.
- 1.3 Glass in Exterior Doors Glass used on exterior doors and in adjacent panels shall be double paned when located within 40 inches of a locking device.
- 1.4 French Doors or Double Doors The inactive leaf of double door shall be secured with a concealed flush mounted header and threshold bolt which penetrates the header and threshold 5/8 inches.

#### 2. SLIDING GLASS DOORS

- 2.1 The movable or sliding section of the door shall be on the inside of the fixed portion of the door.
- 2.2 The mounting screws for the lock casing shall be inaccessible from the outside.
- 2.3 Sliding doors shall be installed so that when the door is locked it cannot be lifted from the frame in the closed position.

#### 3. LOCKS

- 3.1 All exterior swinging doors should be equipped with a single cylinder deadbolt lock.
- 3.2 Deadbolt locks shall have: a solid tapered trim ring; a minimum bolt length of one inch, which when extended shall penetrate the strike plate by a least 3/4 inches; at least two 1/4 inch-diameter case-hardened steel mounting bolts that thread directly into the lock body; and a pin tumbler mechanism which incorporates a minimum of five pins.
- 3.3 A combination Dead Latch and Deadbolt, where both the bolt and latch can be retracted with a single action of the inside know, can be substituted provided it meets the approved criteria for deadbolt locks.

## 4. HINGES-DOOR FRAMES

4.1 Door frames which are exposed to the exterior shall be equipped with nonremovable hinges or a mechanical interlock to stop removal of the door from the exterior by removing the hinges.

- 4.2 In wood frame construction the open space between the door jam and studding shall have a solid filler extending not less than six inches above and below the hinge plate.
- 4.3 Hinge plates should be attached to wood with not less than three, three inch steel screws. Hinge plates, when attached to metal, shall be secured with not less than three machine screws.

## 5. STRIKE PLATES

- 5.1 Strike plates should be attached to wood with not less than four, three inch steel screws.
- 5.2 Screws securing the strike plate area shall pass through the strike plate, door frame, solid wood filler and enter the buck plate by a minimum of one-half of an inch.
- 5.3 The open space between the door jamb and studding should have a solid filler extending not less than twelve inches above and below the strike plate.

## 6. WINDOWS

6.1 Windows shall be secured with a locking device. Locking devices on wood double hung windows shall be secured with three-quarter inch #8 full threaded screws.

## 7. DOOR VIEWERS

7.1 Solid exterior doors shall be equipped with a door viewer with a field of vision of not less than 180 degrees.

## APPENDIX C

REPORT ON HOUSEHOLD BURGLARY BY

U.S. DEPARTMENT OF JUSTICE -

BUREAU OF JUSTICE STATISTICS



# Bureau of Justice Statistics Rulletin

# Household Burglary

A substantial proportion of violent crimes that occur in the home are committed during household burglaries. Three-fifths of all rapes in the home, three-fifths of all home robberies, and about a third of home aggravated and simple assaults are committed by burglars. During the 10-year period 1973-82, 2.8 million such violent crimes occurred during the course of burglaries, even though the vast majority of burglaries occur when household member is present.

#### ung burglary

Burglary, like many other crimes, has a precise legal definition that may vary among jurisdictions.

The definitions used in the National Crime Survey (NCS) differ somewhat from the definition used in the Uniform Crime Reporting program (UCR) of the Federal Bureau of Investigation. The UCR bases its classification upon a determination of the offender's intent. Because this concept is often difficult or impossible to establish in a victimization survey, the NCS replaces the test of intent with a test of whether the offender had the right to enter the residence.

The NCS defines burglary as unlawful or forcible entry of a residence, isually, but not necessarily, attended by theft, including attempted forcible entry. The entry may be by force, such is picking a lock, breaking a window, or ilashing a screen, or it may be through in unlocked door or an open window.

\*- long as the person had no legal right nter, a burglary has occurred.

urthermore, the structure entered need not be the residence itself for a nousehold burglary to have taken

The differences and similarities between the NCS and UCR are discussed in the first BJS bulletin, <u>deasuring Crime</u> (Pebruary 1981, NCJ-75710).

Household burglary ranks among the more serious felony crimes, not only because it involves the illegal entry of one's home, but also because a substantial proportion of the violent crimes that occur in the home take place during a burglary incident. Thus burglary is potentially a far more serious crime than its classification as a property offense indicates; for many victims, including those that avoid the trauma of personal confrontation, the invasion of their home on one or more occasions constitutes a violation that produces permanent emotional scars.

This study of burglary is based on 10 years of data from the

January 1985

National Crime Survey (NCS), the only national source of detailed data on the characteristics of individual felony crimes. During the 10 year period 1973-82, there were about 73 million incidents of household burglary.

Using the information presented in this report, concerned citizens and law enforcement officials will be able to develop a profile of households at risk of being burglarized. The crime prevention potential of such a risk profile is enormous.

Future BJS bulletins will address other felony crimes, better to assist individuals in minimizing their risk of victimization.

Steven R. Schlesinger Director

place. Illegal entry into a garage, shed, or any other structure on the premises also constitutes household burglary. In fact, burglary does not necessarily have to occur on the premises. If the breaking and entering occurred in a hotel or a vacation residence, it would still be classified as burglary for the household whose member or members were staying there at the time.

Three types of burglary can be distinguished:

- Forcible entry—in which force is used to gain entry (e.g., by breaking a window or slashing a screen).
- Attempted forcible entry—in which force is used in an attempt to gain entry.
- Unlawful entry—in which someone with no legal right to be on the premises gains entry even though force is not used.

During the 10-year period examined here, 73 million incidents of forcible

entry, attempted forcible entry, and unlawful entry took place. Unlawful entry accounted for 45% of all burglaries, forcible entry made up 33%, and attempted forcible entry accounted for 22% of all burglaries (table 1). These and other data derived from the Bureau's National Crime Survey (NCS) provide a detailed description of the crime of household burglary.

Table 1. Househo	old burglaries,	1973-19	82
Type of burglary	Number	Per- cent	Average annual rate <sup>a</sup>
Total	73,308,000	100%	94.6
Forcible entry Unlawful entry Attempted forcible entry	24,251,000 32,956,000 16,100,000	33 45 22	31.3 42.5 20.8

Note: Detail may not sum to totals because of rounding.

\*\*Rate per 1,000 households.

## **Findings**

Not every household burglary fits the common view of burglary: intrusion by a stranger, by force or stealth, with intent to steal property. In reality, a substantial percentage of household burglaries are committed by persons related to or known by the victims, and in a large number of burglaries the victims report that there was no theft or attempt to steal property.

Information about offenders was available for about 10 percent of all burglaries. Slightly less than half of these burglaries were known to have been committed by strangers (table 2). Spouses or ex-spouses committed 7%; other relatives, 4%; and acquaintances, 25%. The percent distribution of offenders for completed forcible entry and for unlawful entry were quite similar. Attempted forcible entry had a far higher proportion of strangers and persons of unknown relationship than either of the other two burglary types.

## Characteristics of households victimized by burglary

Race of household head. Elack households were forcibly entered (including attempts) much more frequently than white households, but they were unlawfully entered at roughly the same rate (table 3). Households of other races (Native Americans, Asians, and Pacific Islanders) had burglary rates comparable to those of white households.

Family income. Families with incomes under \$7,500 a year had the highest overall burglary rates during the 10-year period. Among other income groups, there was little difference in the rate at which households were forcibly entered. For unlawful entry, however, households with incomes over \$25,000 had a higher rate than any others except those with incomes under \$7,500.

Tenure and number of units in structure. Households in owner-occupied residences had lower rates for each type of burglary than households in rented quarters. Households in single-family houses, whether owned or rented, had lower burglary rates than households in multi-unit dwellings. The households most susceptible to burglary (especially to forcible entry) were in buildings with three to nine dwelling units.

Table 2. Relationship to offenders in household burglaries, 1973-82

	Percent of incidents					
Offender characteristics	Burglary total	Forcible entry	Unlawiui entry	Attempted for all the entry		
Total burgiaries in which offender	<del></del>					
characteristics were obtained	100.0%	100.0%	100.0%	٠		
Spouse/ex-spouse	7.5	7.5	10.0	1.8		
Other relatives	3.9	5.6	3.9	2.2		
Acquaintances	25.0	25.5	28.9	15.6		
Known by sight only	5.8	5.8	5.8	4.9		
Strangers	47.8	44.1	45.1	57.6		
Offender identity uncertain	10.3	11.5	6.4	17.9		
Percent of all burglaries in which						
offender characteristics were obtained	9.4	6.9	11.0	10.1		

Note: Detail may not sum to totals because of rounding.

Table 3. Burglary incident rates, 1973-62 average yearly rates, by household characteristics

		Rate per 1,0	00 households	
Household characteristics	Burglary total	Forcible entry	Uniawful entry	Attempted forcible entry
All households	94.6	31.3	42.5	20.8
Race of household head				
White	89.6	27.9	42.4	19.2
Black	137.1	59.7	44.0	33.3
Other	96.3	32.0	40.8	23.4
Family income				
Less than \$7,500	111.9	37.2	49.7	25.1
\$7,500-\$14,999	90.1	30.5	38.9	20.7
\$15,000-\$24,999	84.7	26.4	40.0	18.2
\$25,000 or more	90.5	28.6	44.2	17.7
Tenure				
Owned or being bought	76.5	24.9	35.8	15.8
Rented	127.0	42.8	54.5	29.6
Number of units in structure				
1	86.0	28.5	39.8	
2	108.0	37.9	45.1	
2 3	112.9	42.9	44.5	
4	128.1	42.9	50. <b>0</b>	35.1
5-9	133.3	47.0	51.3	35.0
10 or more	105.6	33.6	45.2	26.8
Mobile homes	82.7	28.4	36.1	18.1
Other than housing units	170.1	22.3	133.6	14.2
Place of residence <sup>a</sup>				
Urban	113.5	43.7	41.7	28.1
Suburban	83.3	26.8	37.7	18.8
Rurai	68.1	17.7	36.0	12.4

Note: Detail may not sum to totals because of rounding.

\*\*Based on only nonseries, nonescalating burglaries—see text.

Households in buildings with 10 or more units were forcibly entered at a rate closer to that for households in 2-unit buildings than to that for households in multi-unit buildings of intermediate size. It is possible that the larger number of neighbors and the greater traffic in buildings with 10 or more units, as well as the higher security measures offered in many such buildings, have a deterrent effect on forcible entry.

Persons living in group quarters, such as nontransient hotel rooms and dormitories, had unlawful entry rates that were 2 1/2 to 3 times higher than the rates for households. On the other hand, their forcible entry rates were lower than those for other households.

Place of residence.<sup>4</sup> Urban, suburban, and rural households differ greatly in

rates of forcible entry (either attempted or completed). Urban households had the highest rates; rural households, the lowest. There was much less difference among urban, suburban, and rural households in the rate at which they were unlawfully entered.

Ninety-five percent of both forcible entries and unlawful entries and 99% of all attempted entries took place at the respondent's residence. The rest occurred at a vacation home, hotel, or motel at which household members were staying at the time of the burglary.

<sup>&</sup>lt;sup>2</sup>The National Crime Survey is designed to collect offender information only for incidents during which a household member was present.

The data are inadequate to examine each of the other races separately.

<sup>&</sup>lt;sup>4</sup>The comparison of burglary rates by a residence is based on published NCS data rather than on the complete NCS file (including escalated and series burglaries) used for the rest of the report because of missing place—of-residence data on the complete file.

Seasonal fluctuations. Burglary occurred more often in the warmer months than in the colder months, though this pattern was more proniced for unlawful entry than for pleted or attempted forcible entry jure 1). A possible explanation for the larger seasonal fluctuation in unlawful entry is the greater tendency to leave windows and doors open during the warm months, creating an opportunity for easy entry.

Time of day. A greater proportion of the victims of forcible entry than the victims of unlawful entry or attempted forcible entry could identify the period of day in which the intrusion took place

Percent distribution of each type of burglary by month of commission Forcible entry by month Percent of incidents 10 -April Oct Unlawful (no-force)entry by month 10 -Attempted forcible entry by month 10 -April July Oct Figure 1

(table 4). The distribution of incidents in which the time of occurrence was known was about evenly divided between day and night for each type of burglary, although victims reported that a greater proportion of attempted forcible entries than of other types occurred between midnight and 6 a.m.

Theft and property damage. The vast majority of all forcible entries and unlawful entries involve actual or attempted theft of household property (table 5). Such is not the case, however, for attempted forcible entry. An attempted theft was reported in only 14% of all such incidents and a completed theft in only 3%. It is likely that many victims, having only evidence of an attempted entry, such as damaged locks or broken windows, declined to speculate on the intent of the persons who tried to gain entry to their home.

The distribution of burglaries

Table 4. Percent of burgiaries by time of occurrence, 1973-82 Percent of incidents Attempted Time of occurrence total entry entry forcible entry 100.0% Total 100.0% 100.0% 100.0% Daytime 6 a.m.-6 p.m. 35.5 38.6 27.6 Nightime 6 p.m.-midnight 22.1 18.9 16.1 19.9 Midnight-6 a.m. 12.1 11.7 9.9 17.2 7.6 Night but don't know when 7.9 7.9 8.6 19.8 29.3 26.8 Not known and not available Note: Detail may not sum to totals because of rounding.

	Percent of incidents					
Type of crime	Burglary total	Forcible entry	Unlawful entry	Attempted forcible entry		
Involving theft	62.9%	77.2%	81.9%	2.7%		
Involving attempted theft	7.1	6.2	4.2	14.3		
Involving property damage	41.7	72.6	7.1	66.0		

	Percent of incidents			
Characteristics	Forcible entry	Unlawful entry	Attempted forcible entry	
Total	72.1%	39.6%	34.1%	
Value of stolen property				
No monetary value	52.0	27.3	•	
Less than \$10	48.4	13.8	39.5	
\$10-49	51.0	17.3	31.5	
\$50-249	68.0	43.4	51.7	
\$250-999	86.6	68.7	75.7	
\$1,000 or more	93.2	71.9	62.0	
Relationship to offenders				
Spouse/ex-spouse	79.6	63.7	79.5	
Other relative	86.6	73.3	94.0	
Well known	72.9	55.7	72.0	
Casual acquaintance	70.6	59.1	80.8	
Known by sight only	76.9	59.4	63.3	
Stranger	80.0	63.9	67.1	
Offender identity uncertain	78.6	55.4	61.6	
Offender identity unknown	71.6	36.9	30.2	
Extent of burglery				
Violent <sup>b</sup>	83.6	70.3	82.4	
Not violent	71.7	37.9	33.0	
Presence of a household member in home during burglary				
At least one present	77.2	59.3	60.1	
No one present	71.8	36.5	28.8	

b Burglaries that involved a crime of rape, robbery, or assault.

involving property damage presents no surprises; a majority of both attempted and completed forcible entries involved property damage, while only a small percentage of unlawful entries did.

Reporting to police. The probability that a burglary will be reported to the police is related to various aspects of the burglary: the kind of intrusion, who committed it, whether a household member was present, whether a violent crime was committed during the burglary, whether anything was stolen, and, if stolen, the value of the property.

Forcible entries were reported to the police almost twice as often as unlawful entries, and just over twice as often as attempted forcible entries (table 6).

Burglaries committed by relatives (excluding spouses and ex-spouses) were reported to the police more frequently than burglaries committed by acquaint-ances, strangers, or unknown offenders. The high reporting rate of burglaries by relatives may be a function of the way home intrusion by relatives is perceived by the victims.

The victimized household would almost always consider an intrusion by a stranger or an unknown offender to be a crime, but it is likely that many cases of home intrusion by a relative are not considered a crime or are thought too private to discuss with anyone, including a survey interviewer. If so, then the home intrusions reported to the survey would primarily be the ones that the victims felt warranted police intervention.

Burglaries in which a household member was also the victim of a violent crime were reported to the police to a greater extent than those in which a household member was present but not violently victimized; these latter, in turn, were reported more frequently than burglaries that took place when no one was home. The increases in reporting by household members present during the incident and household members violently victimized during burglary incidents were greatest for attempted forcible entry and least for completed forcible entry.

The higher reporting rates for burglaries in which a household member was present but not violently victurized than for burglaries with no one present may be because the victims felt there was a greater possibility that the police could do something when the offender had been observed.

For each burglary type, the percentage of incidents reported was

Table 7. Percent distribution of reasons for not reporting burgianes to the police, 1973-82

		Percent of inc	cidents not repo	rted
Reasons for not reporting	Burglary total	Porcible entry	Unlawful entry	Attem forcib
Nothing could be done	39.3%	36.0%	40.0%	40.2×
Did not think it was important enough	28.3	21.5	27.7	33.5
Police wouldn't want to be bothered	10.8	14.6	9.6	10.8
Didn't want to take the time	2.7	3.7	2.6	2.3
Private matter	8.8	11.2	11.1	3.0
Didn't want to get involved	1.1	1.7	1.0	0.8
Fear of reprisal	1.3	1.8	1.4	0.6
Reported to someone else	7.7	7.3	7.4	8.6
Other reasons	29.9	34.0	27.8	31.2

Note: Because some respondents gave more than one answer, reasons may total more than 100%.

Table 8. Presence of household members and violent crimes during burgianes, 1973-82

				Percent o	f inciden	ts		<del> </del>
	Burgl	ary total	Porc	ible entry	Unlay	rful entry		lempted ble entry
Burgiaries	All bur- glaries	Burglary with household member present	Total	Burglary with household member present	Total	Burglary with household member present	Total	Burglary with household member present
Total	100.0%		100.0%		100.0%		100.0%	
With household member present Involving violent	12.7	100.0%	8.7	100.0%	13.6	100.0%	16.7	100.0%
crime	3.8	30.2	3.0	34.4	5.2	38.6	2.2	13.0

		Percent of violent burglaries				
Number of violent burglaries	Total violent burglaries	Total	Porcible entry	Unlawful entry	Attempted forcible entry	
Total	2,761,000	100.0%	26.1%	61.3%	12.6%	
Rape	281,000	100.0	34.8	62.5	2.7*	
Robbery	786,000	100.0	33.8	60.5	5.9	
Aggravated assault	623,000	100.0	21.8	56.0	22.2	
Simple assault	1,071,000	100.0	20.8	64.5	14.7	

directly related to the value of property stolen; few incidents were reported when the value of the loss was low, and reporting increased as the value of the loss increased. When the value of the loss was \$1,000 or more, more than 90% of all forcible entries were reported to the police.

Burglary victims who did not report the crime to the police most often said "nothing could be done" to explain why the incident was not reported (table 7). "Did not think it was important enough" was also a frequent reason for not reporting, although more so for attempted forcible entries than for completed forcible entries or unlawful entries.

## Violent crime occurring during burglaries

One of the greatest fears that people have concerning burglary is the

possibility that a burglar may inflict physical harm on a household member who happens to be present during the incident.

NCS data indicate that these fears are well-founded. A household member was present during only 9% of all forcible entries, 14% of all unlawful entries and 17% of all attempted forcible entries (table 8). However, in these cases a violent crime was committed during a third of the forcible entries, during almost two-fifths of the unlawful entries and during one-seventh of the attempted entries.

During the 10-year period studic the 2.8 million violent crimes that committed in the course of attemp or completed household burglaries involved about 3% of the completed forcible entries, 5% of the unlawful entries and 2% of the attempted forcible entries each year (table 9).

#### Trends

Unlawful entry without force was e only type of burglary that showed discernible trend across the 10-year od, 1973-82 (figure 2). Its rate wed a moderate decrease from 47 incidents per 1,000 households in 1973 to 39 per 1,000 in 1982. Both completed and attempted forcible entry rates remained substantially the same throughout the period, although in 1982 forcible entry showed its lowest rate for the 10-year period.

The somewhat declining trend in unlawful entry may be evidence that people are becoming more careful about locking their doors and windows to prevent these crimes. If people are taking more precautions in keeping their homes secured, one would expect to find the decline in the unlawful entry rate that NCS data show. However, other factors may have contributed to the observed trend.

No evidence could be found in the data that the increasing prevalence of security devices (such as burglar alarms and sophisticated locks, etc.) has had any effect on the amount of forcible entry. The rates for both attempted and completed forcible entry remained tremely stable between 1973 and

he lack of evidence that burglar alarms have affected the burglary rate should not be interpreted as proof that such devices are not effective. It merely indicates that the survey data shed no light on this subject. There are other possible explanations for the unchanging forcible entry trend. For example, burglars may be avoiding homes with alarms and protective devices located in communities with active crime prevention in favor of less protected buildings and neighborhoods. If so, then the precautions that some people have taken would result in a shift of the location of the offenseswhich would not be reflected in the crime statistics-rather than a decrease in the amount of crime-which would appear in the data.

## Methodology

The classification procedures used to produce the annual NCS estimates of time levels and rates published in the test, Criminal Victimization in the ed States, classify a crime active most serious attribute.

a household burglary that also involved rape is counted as a rape. The burglary component of the incident is not included in the estimate of bur-

glaries. This is done so that every

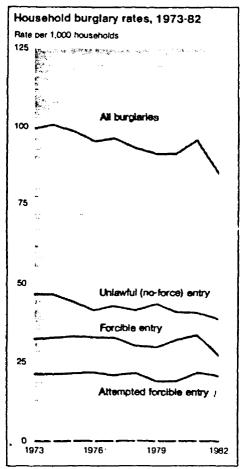


Figure 2

criminal incident is counted only once according to its most serious element, in order to simplify the estimation and analytic process.

This report, because it focuses on burglaries, employs an alternative classification procedure: Any criminal incident that had a burglary component was counted as a burglary. The estimates in this report also include series incidents (with each counted as only one incident) normally excluded from estimates in annual NCS publications. These make up about 4% of all forcible entries and 5% of all unlawful entries. For these reasons the estimates in this report are higher than those in other NCS publications. Even excluding these violent burglaries and series incident burglaries, the estimates in this report differ only slightly from those in other NCS reports because of the use here of an incident weight rather than a household weight. The incident weight was used because of the inclusion of crimes counted as personal crimes under the usual classification procedure.

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analysis, edits them. Marilyn
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assisted by Millie J. Baldea, Tina
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January 1985, NCJ-96021

<sup>&</sup>lt;sup>5</sup>A discussion of the measurement of series victimizations is found in the BJS technical report, Criminal Victimization in the U.S., 1979-80 Changes, 1973-80 Trends (July 1982, NCJ-80838).

Weighting of survey data is discussed in Appendix III of Criminal Victimization in the U.S., 1982, (December 1984, NCJ-92827).