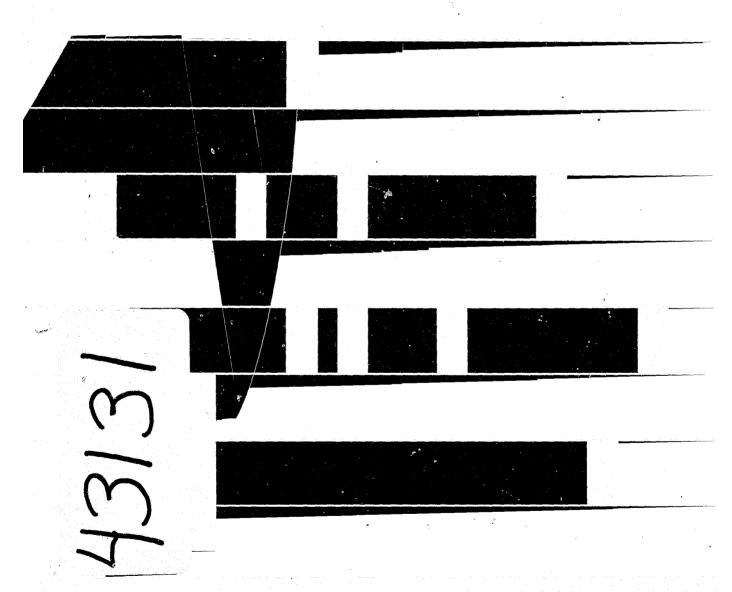
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# Crime-Specific Analysis

An Empirical Examination of Burglary Offense and Offender Characteristics





U.S. DEPARTMENT OF JUSTICE Law Enforcement Assistance Administration National Criminal Justice Information and Statistics Service
UTILIZATION OF CRIMINAL JUSTICE STATISTICS

ANALYTIC REPORT 12

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Utilization of Criminal Justice Statistics Project ANALYTIC REPORT 12

# CRIME-SPECIFIC ANALYSIS: An Empirical Examination of Burglary Offense and Offender Characteristics

by CARL E. POPE Research Analyst

CRIMINAL JUSTICE RESEARCH CENTER Albany, New York

This project was supported by Grant No. 75-SS-99-6001, awarded to the Criminal Justice Research Center, Albany, New York by the Statistics Division, National Criminal Justice Information and Statistics Services, Law Enforcement Assistance Administration, U.S. Department of Justice, under the Omnibus Crime Control and Safe Streets Act of 1968, as amended; the project, entitled "Utilization of Criminal Justice Statistics," is being directed for the Criminal Justice Research Center by Michael J. Hindelang and monitored for LEAA by Sue A. Lindgren. Points of view or opinions stated in this document are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice.

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U.S. DEPARTMENT OF JUSTICE

Law Enforcement
Assistance Administration

National Criminal Justice Information and Statistics Service

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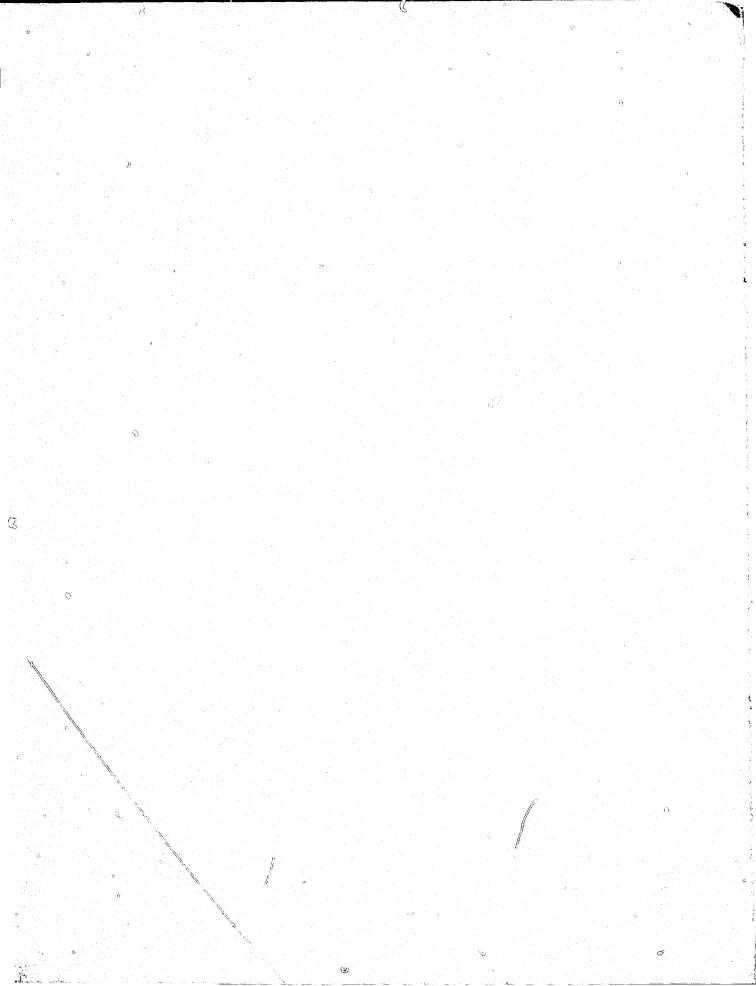
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THE UTILIZATION OF CRIMINAL JUSTICE STATISTICS Project was funded initially in 1972 by the National Criminal Justice Information and Statistics Service of the Law Enforcement Assistance Administration. One primary aim of the project is the production of annual editions of the Sourcebook of Criminal Justice Statistics, a compilation of available nationwide criminal justice statistical data. A second aim has been and continues to be an examination of the utility that a variety of criminal justice statistical data bases have for addressing questions of practical and theoretical interest in the field.

One product of that examination is a series of analytic reports, of which this volume is one. These reports, written by research staff members of the Utilization of Criminal Justice Statistics Project, all have a common theme: the discussion of a central criminal justice topic using an exemplary or innovative criminal justice data base. Each report in the series not only discusses substantive findings in regard to particular issues, but also considers the qualities and limitations of the data, as well as techniques and problems of analysis, in relation to the substantive findings.

At a time when criminal justice statistics development is extensive, and often expensive, these analytic reports focus attention on one often overlooked function of criminal justice statistics—the analysis of current issues and questions based on available data. In fact, the utilization issue is perhaps as important as any in the area of criminal justice statistics. It often happens that data are collected—usually at great expense—without subsequent efforts to utilize such data to address the pressing problems that confront criminal justice. This series of Analytic Reports explores the problems and prospects inherent in the application of various sources of criminal justice statistical data to issues of interest and concern to agency personnel, planners, researchers, and the public alike.

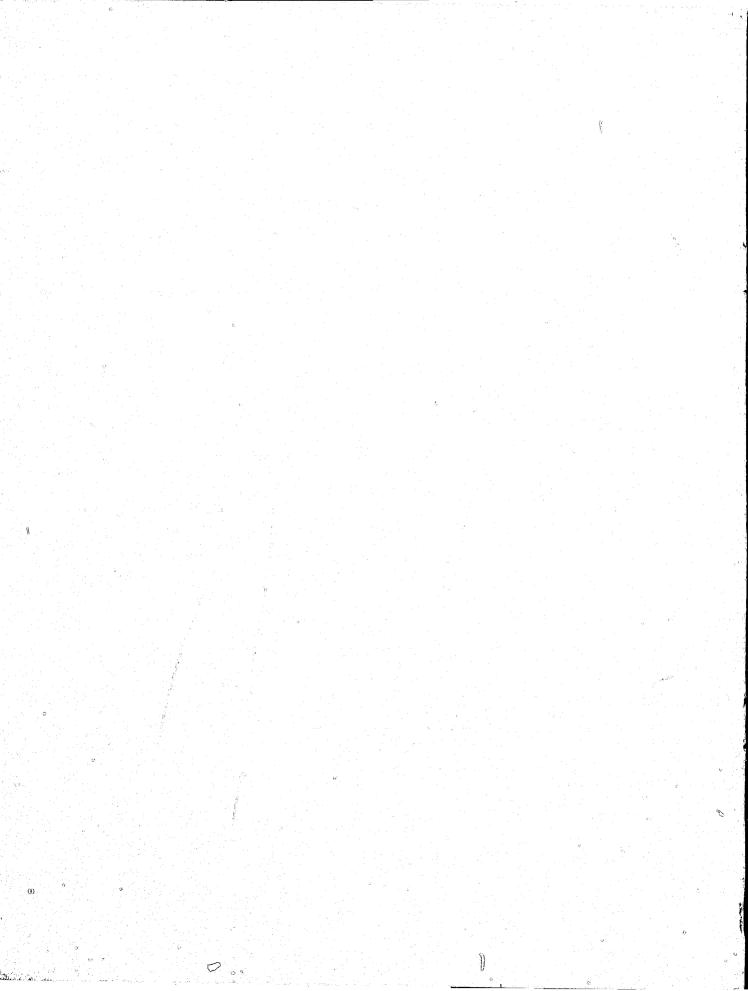
MICHAEL J. HINDELANG
Project Director



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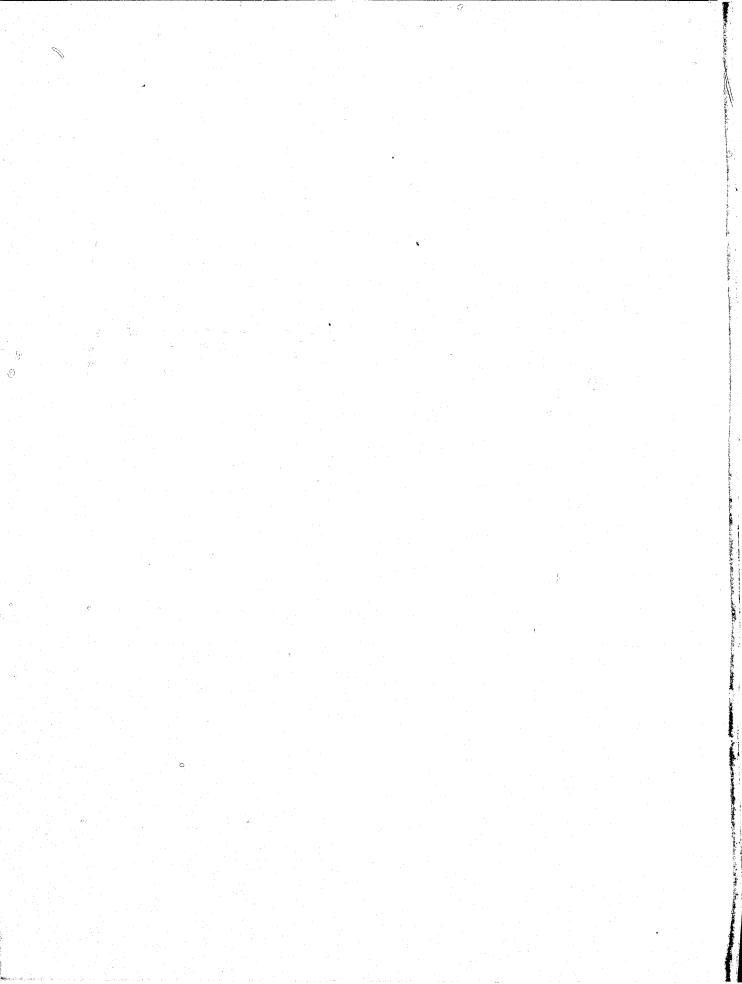
#### **PREFACE**

THIS IS the third of three reports focusing upon various characteristics and patterns associated with the crime of burglary. The overall objective of the series is basically threefold: first, to examine the characteristics of reported burglary incidents and their interrelationships; second, to explore both the social and legal characteristics of those individuals apprehended for the crime of burglary; and third, to specify the extent to which various offense and offender characteristics are related. The first report provided an extended discussion of the data base that is used throughout the series and reviewed research findings pertaining to burglary incidents. Noting the limitations of much of the research that deals with the crime of burglary, this report undertook a detailed analysis of various incident characteristics including such factors as the type of structure burglarized, the amount of property stolen, methods used to gain entry, and the like. This analytic method was continued in the second report, which examined such factors as the age, race, sex, and previous criminal history of those arrested for the commission of burglary offenses. Analysis also focused upon the initial police decision to release the suspect without a complaint being filed or to file a complaint, which leads to prosecution.

The findings of these two reports lent support to previous research focusing on the crime of burglary. That is, relationships among incident characteristics were discovered to be quite similar to those found in other studies, whether official data or victim survey techniques were used. Distinct relationships were evident for both offense and offender characteristics, indicating that many of the correlates of burglary are not randomly distributed but instead show evidence of being patterned events.

Although research on violent and personal crime has demonstrated the existence of patterned relationships among offense and offender characteristics in crimes such as homicide, rape, and robbery, different types of burglary offenders have rarely been correlated with distinct types of burglary incidents. Certain offense and offender relationships have been found, but overall patterns were not distinctive. This report examines the empirical link between offense and offender characteristics in an attempt to determine whether and to what extent certain types of burglary offenses were committed by certain types of offenders.

Carl E. Pope School of Social Welfare Criminal Justice Program University of Wisconsin Milwaukee, Wisconsin 1976



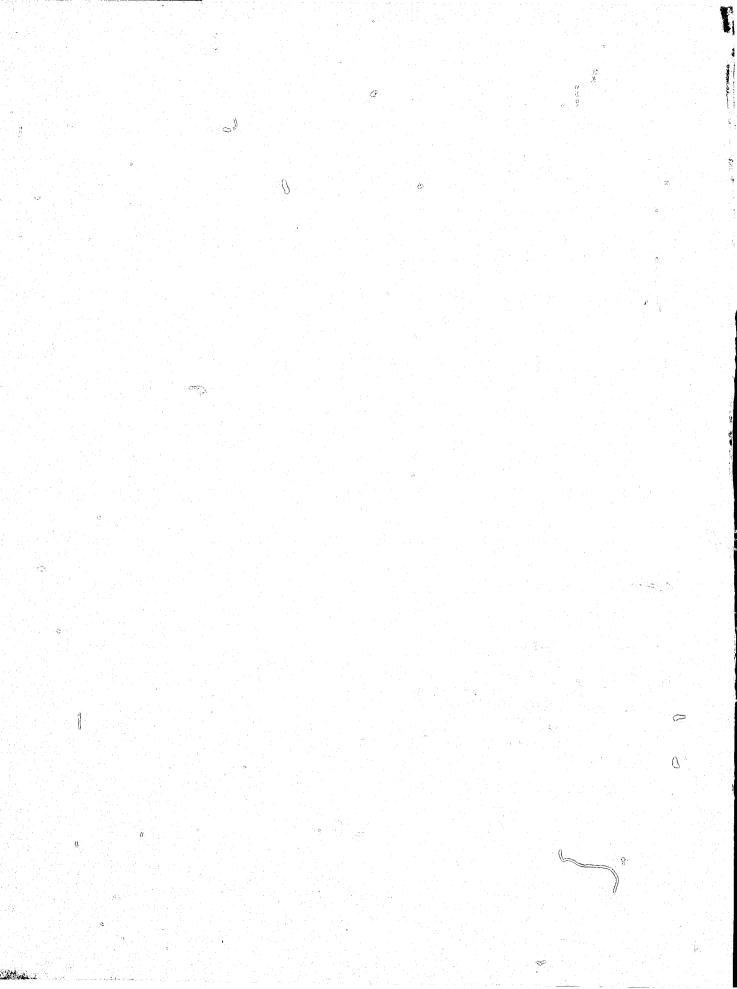
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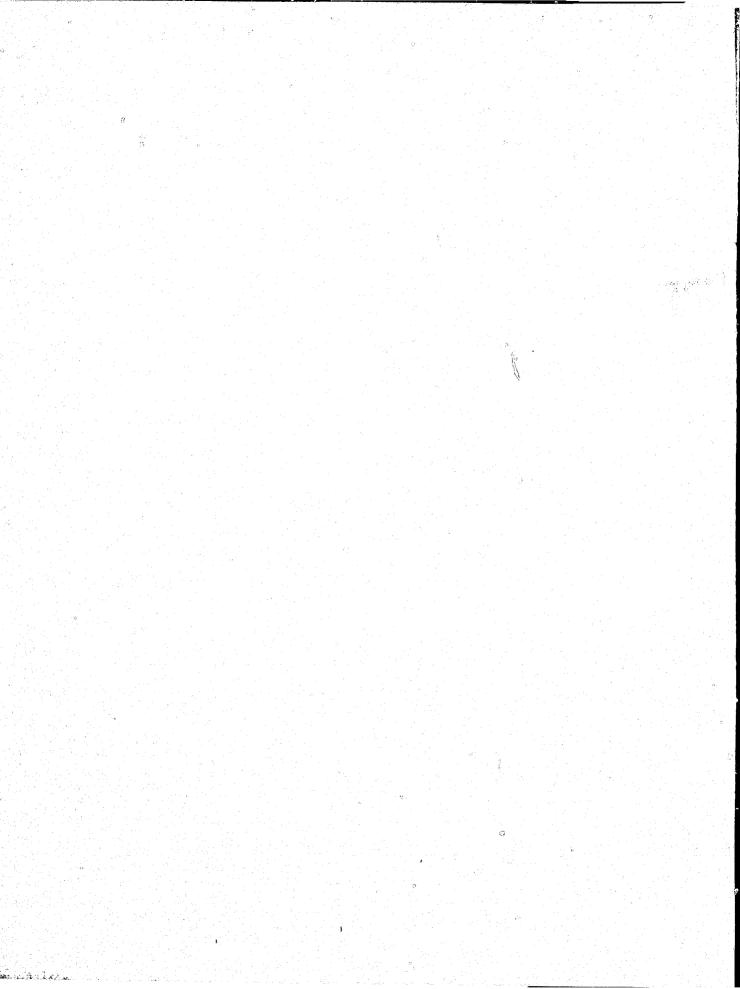
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## Highlights of the Findings

IN THIS REPORT, the characteristics of burglary incidents that occurred in six separate police jurisdictions over a 1-year period were examined. The focus here was on a patterned link between burglary offense and offender characteristics. That is, an attempt was made to determine whether certain types of burglary offenders committed certain types of burglaries. Females were substantially more likely than males to burglarize nonresidential structures, using little or no force to gain entry. Black/other offenders were more likely than white offenders to use a tool, make forcible entries and damage property. Those 18 years of age and older were more likely than those younger to commit burglaries at night and during the winter. Aside from some minor relationships, however, burglary was not found to be a patterned event—that is, certain types of burglary offenders did not tend to commit particular types of burglaries.



#### **CRIME-SPECIFIC ANALYSIS:**

# An Empirical Examination of Burglary Offense and Offender Characteristics

#### Introduction

A PRIMARY OBJECTIVE of this report is to examine the relationship between burglary incidents and individuals apprehended for these burglaries. In other words, are certain kinds of burglaries committed by certain kinds of burglars? The research question and subsequent findings represent the culmination of an analysis begun in two earlier reports (Pope, 1977, 1977a). The data in these reports indicated, for example, that arrested juvenile offenders (those 17 years of age or younger) tended to commit burglaries less than 1 mile of their residences and in the company of others, and that arrested female offenders were more likely to commit burglaries outside the areas of their residences and with other persons. A number of burglary incident characteristics were also found to be related. For example, residential burglaries were more likely than nonresidential burglaries to involve financial loss and to occur during the daylight hours and on weekdays.

These findings illustrate that the characteristics of burglary offenders as well as burglary incidents exhibit certain patterns. Knowledge of burglary is incomplete, however, without knowing if or how these patterns intersect. That is, by knowing something about burglary incidents, does one also know something about those offenders who were involved in the incidents and vice versa?

Before proceeding with the analysis of patterned relationships in the commission of burglary, a few preliminary remarks are in order. As noted above, this report is a continuation of two previous works focusing on incident and offender characteristics in burglary. Although the data base is briefly described in this report, a more detailed discussion can be found in the two earlier reports. Furthermore, the procedures used to analyze the data in this report are

at times quite complex and mathematically sophisticated. An attempt has been made to limit the complexity of the presentation by minimizing the technical discussion and briefly summarizing the procedures. Emphasis is focused on the conceptual rather than technical aspects of this undertaking. A summary of the major findings of the three reports begins on page 41.

# Interrelationship Among Crime Characteristics

As Wolfgang observed in his classic study of homicide,

Most previous research has examined either the victim or the offender. In the present work, analysis has been made of both victims and offenders, separately, as distinct units, but also as mutually interacting participants... It is one type of analysis to consider victims as a social group and offenders as another social group, it is quite a different and more refined type of analysis to consider specific victim-offender relationships, and to find race, sex, age, and other patterns among them (1958:319).

By examining these victim-offender patterns, Wolfgang contributed both substantive and theoretical knowledge about homicide and other violent crimes. Although homicide was generally found to be an unplanned act, a number of empirical uniformities were noted. In two-thirds of the cases analyzed, alcohol was present in the victim, the offender, or both (Wolfgang, 1958:322). Wives were substantially more likely to be slain by their husbands than vice versa (Wolfgang, 1958:325). Approximately one-fourth of all homicides were found to be victim precipitated, in that the victim had some

hand in his own death, for example, by initiating an altercation (Wolfgang, 1958:325). Furthermore, certain characteristics were found to be associated with victim-precipitated homicides, leading Wolfgang to conclude:

The roles and the characteristics of the victim and the offender are reversed, and the victim assumes the role of determinant. This study has been one of the first to provide significant empirical data to support von Hentig's assertions about the contribution of the victim to the genesis of his own victimization (1958:326).

The characteristics of those individuals predominantly involved in the killing of others laid the foundation for Wolfgang's theory about the existence of a subculture of violence. Those persons were hypothesized to share certain values and norms that conflict with those of the larger culture, so that forces leading toward an eventual homicide would be expected and homicide would be seen as a normal reaction by members of the subculture. For example, whereas persons internalizing the norms of the larger culture may simply shrug off an insult, subcultural members would be more likely to respond with physical aggression. In an examination of rape events in Philadelphia, Amir also found the existence of significant patterns in the relationship between the victim and offender. Again, rape offenders exhibited distinct characteristics in relation to those incidents in which they were involved. These findings lent further support to the subculture of yiolence theory. As Amir stated: "Of course, it is always people who commit rape, but the rate of rape is conditioned by the cultural norms and social organization or disorganization of the group to which they belong" (1971:320).

Without such analyses of both incident and offender characteristics, much less would be known about homicide and rape. Furthermore, many erroneous theories concerning such acts, for example, that blacks disproportionately kill or rape white victims, would still be accepted by many as fact. Without the empirical analysis initiated by Wolfgang, knowledge about and implications of victim-precipitated crime would still be untested conjecture, as would the existence of a subculture of violence. More recently, Normandeau's (1968) examination of interrelated patterns in robbery has suggested a refinement of the subculture of violence hypothesis. Normandeau notes:

There is no trace among the arrested robbers (Negroes or whites) in our study of a large class of robbers with long previous records of violence. They are not a special class but are primarily thieves who occasionally, though rather rarely, use force to achieve their objectives. The display of violence in this context is on the whole an isolated episode (1968:309).

Therefore, robbery offenders may be better characterized as falling into a subculture of theft rather than of violence.

Aside from the theoretical knowledge drawn from studies such as those just noted, practical implications are also apparent. If violent offenders are somehow conditioned or molded by subcultural contacts, such as peer group role models, then treatment or rehabilitation programs focusing on the individual offender are likely to prove futile if the total social environment is not considered. If an individualized treatment program is applied to such offenders, either in an institution or other setting, any rehabilitative effects are likely to be nullified when the offender must once again adapt to the subcultural environment in of der to survive. In an article focusing on classification of offenders for treatment purposes, Warren notes the following about offenders who identify with the subculture:

The essential characteristics of this type of offender is that the individual, although developing "normally" in most respects, has internalized the value system of a deviant subculture (1971:253).

Warren then recommends two levels of treatment, one aimed at stopping the antisocial behavior and the other directed toward changing the content of the offender's value system. The latter approach might involve a broadening of the offender's self image by providing a strong identity model representing the values of the larger culture. Regardless of the merits of such an approach, the point is simply that empirical findings may provide the foundation for a program of planned change.

Unfortunately, analysis of the patterning of property offenses is far behind similar research on violent and personal crimes. As noted in earlier reports, little information currently exists concerning the characteristics of burglary offenders, especially as they relate to burglary incidents. Although Reppetto (1974) constructed profiles of offender characteristics, they were based primarily on personal interviews with adjudicated burglars.

Furthermore, these profiles were formed on singular defining characteristics and were found to overlap substantially. Scarr's (1973) profiles or typologies are even less compelling, because they were based upon impressions gained from criminal justice functionaries. In neither case are the distinctions made among burglary characteristics empirically grounded. Thus, answers to many questions about the nature of burglary are still unclear. The findings reported later represent an effort to provide some of these answers by undertaking an empirical analysis of the correlates of burglary offenses and offenders, and their patterning.

#### **Analytic Format**

The data utilized to examine the patterning of offense and offender characteristics were derived from a crime-specific burglary program conducted by the California Council on Crime and Justice. Burglary data were compiled in six separate police jurisdictions and covered a 1-year period from April 1972 to May 1973. Information was provided on both characteristics of the incidents (e.g., type of target, time of day, method of entry) and on characteristics of offenders who were apprehended during the course of the project (e.g., race, age). Overall, the data contain much more information on both offenses and offenders than do data that are normally appended to police incident report forms; it thus provides a solid basis for the present undertaking.2

1The six agencies involved in the California burglary project included the San Francisco, Oakland, Los Angeles, and San Diego Police Departments plus the Los Angeles and Orange County Sheriffs' offices. The reader is referred to the first report in this series for a more detailed discussion of the data base (Pope, 1977a).

<sup>2</sup>For both offense and offender information, a distinct crime report number was appended to the original coding form, which provided a means of linking together offense and offender characteristics. Thus, if an offender was apprehended for a burglary offense committed in one of the target areas during the course of the project, the offender was provided with the same crime number as the incident itself. Since it was possible that more than one offender was involved in a particular incident or that one offender committed a number of burglaries, it was necessary to repeat each information field to provide for multiple offenses and offenders. That is, if more than one offender was involved in a burglary incident, burglary offense information was repeated for each offender. Similarly, if more than one offense was associated with a particular offender then the offender information was repeated. The end result was a matched data set of 1,196 cases in which each ofAlthough it might have been possible to discern interrelated patterns by cross-tabulating each offense variable by each offender variable, such a process is often inefficient and wasteful of information. The use of bivariate cross-tabulation, for example, would effectively preclude the simultaneous consideration of numerous variables that may interact with one another. The earlier analysis indicated that some variables evidence a highly interrelated structure.

In light of the limitations of analytic techniques such as those noted above, a viable alternative for maximizing the amount of information in the data would be to establish dimensions (subsets of interrelated variables) of both offense and offender characteristics and then classify various cases (entities) on the basis of these dimensions. The rationale behind this procedure is actually quite simple. The process begins by forming separate offense and offender dimensions of mutually colinear variables, i.e., those that are highly related to each other. Next, those cases exhibiting similar patterns across these dimensions are grouped together. The end result is an empirical typology of both offenses and offenders that can then be cross-classified to assess the degree to which the various patterns are related.

A hypothetical example may help to clarify the process. Consider the relationship between two possible offense and offender types. Offense type A consists of daytime burglaries of residences in which no force was used to gain entry and the value of the property stolen was minor. Type B includes nighttime burglaries of commercial establishments in which entry was gained via the roof and the amount of loss was substantial. Offense type A may be considered a burglary of opportunity, whereas type B shows evidence of sophistication and planning. Individuals subsumed under offender type A may be juvenile males with prior drug arrests who were on parole at the time of their arrest. Offender type B may include adult males who have a history of prior burglary arrests and work in groups. Offenders classified under type A evidence a drug-survival orientation; type B offenders exhibit qualities of the semiprofessional burglar. The labels attached to each type are, of course, provisional.

fender was linked to each incident and vice versa. Although the procedure introduces a certain degree of error, any biasing effects should be minimal because we are primarily concerned with the correlates of individual offense and offender characteristics.

Cross-classification of the offense and offender types would test the accuracy of the labels. For example, if "burglaries of opportunity" are committed by those showing characteristics of "drug survival" and if few "semiprofessional burglars" are found to commit such offenses (because they are more likely to commit planned burglaries in which profits are relatively lucrative), then the conceptualizations of the types will have survived an important test. If, on the other hand, the types have no predictive validity. then the theory implied in conceptualization of the types is falsified. Of course, in practice, types are first constructed empirically, and conceptualization occurs only after predictive validity has been established (or in the process of determining the utility of the types). If the types prove to be nonpredictive, conceptual or theoretical extensions are doomed a priori.

### Methods of Dimensional Analysis

Because the first task in the process outlined above is to establish empirical dimensions of mutually colinear variables on which cases may later by typed, cluster analysis would seem to be an appropriate method for accomplishing this objective.<sup>3</sup>

<sup>3</sup>Both factor and cluster analysis are appropriate techniques for reducing data to a manageable subset. There are, however, some crucial differences in procedure. A major difference between the two techniques lies in the mathematical procedures used to reach a final solution and the manner in which dimensions are extracted. Factor analysis derives dimensions (factors) based upon the total data set; cluster analysis, on the other hand, derives dimensions (clusters) based upon a subset of variables that are mutually colinear. These mutually colinear subsets of variables are used to reproduce (maximize the variance in) the original correlation matrix rather than dimensions defined by the complete set of variables. Similarly as Bailey observes:

In cluster analysis we draw boundaries so that each object is in one (but only one) group. Thus we meet the typological requirements of exhaustiveness and mutual exclusiveness. In factor analysis we place a factor through a cluster of vectors; each object is represented by a vector and each vector represents a condensation of the vectors. The set of factors is not mutually exclusive and exhaustive. An object can belong to (load positively on) more than one factor because the object's variance is divided between factors (1975:62).

If the individual factors are not mutually exclusive, then objects that are later typed (grouped) on the basis of those factors may form overlapping types. Because it is desirable that both offense and offender types be as independent as possible so that cross-classification will produce meaningful results, the cluster analytic solution would seem to be the more appropriate procedure.

Although the general technique of clustering originated in the early thirties, computational difficulties coupled with the lack of digital computers hampered its development. Within the last 20 years, however, a multitude of clustering procedures have proliferated in such diverse areas as psychology, anthropology, and biology. At the present time, therefore, a researcher desiring to apply clustering techniques to data has a wide variety of methods from which to choose.

The general method of clustering utilized in this study was developed by Tryon and Bailey (1970) under the name of "cumulative communality key cluster analysis." As Tyron and Bailey note: "Cluster analysis is the general logic, formulated as a procedure, by which we objectively group together entities on the basis of their similarities and differences" (1970:1). The method extracts clusters of variables (V-analysis) or objects (0-analysis) that are as general as possible and in which those entities making up a cluster are highly intercorrelated. The process defines clusters that are as independent of each other as possible. By this method, more of the information contained in the data can be used than could be used in prior crime-specific studies that relied almost exclusively on tabular analysis. Rather than considering only two or three variables at one time, all relevant data were explored and homogeneous groupings of attributes extracted.

#### Incident Data

Table 1 provides a listing of those burglary incident characteristic variables entered into the clustering routine. These data represent 1,196 incidents for which corresponding offender information was also available. In the first report in this series, the distributions of all burglary incident characteristics were examined and discussed. Here, only those incidents that were cleared by the arrest of an offender are of concern, thus allowing for the examination of offense and offender patterns. Table 1 shows each characteristic dichotomized into mutually exclusive categories for those incidents cleared by arrest.

<sup>4</sup>These data comprise the matched set of 1,196 offense and offender cases derived by the procedure discussed in footnote 2. Because these data represent those incidents cleared by the arrest of the offender, frequency distributions may differ from those noted for all the burglary incident data (N=8,137) as discussed in the first report (Pope, 1977a). Because clustering was done with the former data set, it would seem appropriate to present the frequency distributions for those incident cases cleared by arrest.

TABLE 1 Characteristics of burglary incidents cleared by arrest

[Percent]

Characteristics <sup>a</sup>	Case di	stribution <sup>(</sup>
Day of week:		
Weekday	69	(777)
Weekend	31	(355)
Time of day:		
Day	43	(437)
Night	57	(570)
Type of structure:		
Residential	61	(729)
Nonresidential	39	(467)
Point of entry:		
Door	61	(678)
Window	39	(439)
Use of force to gain entry:		
No force	44	(506)
Force	56	(651)
Outcome:		
Attempted	5	(62)
Completed	95	(1,134
Use of tool to gain entry:		
No tool	47	(539)
Tool	53	(606)
Loss:		,,,,,,,
No loss	37	(368)
Loss	63	(622)
Damage occurred:		
No damage	46	(538)
Damag₹	54	(626)
Type of property stolen:		
Money or hard salable items	65	(577)
Other	35	(318)
Method of detection:		
Return of victim	51	(606)
Other	49	(587)
Extent of street lighting:		
Street lights within 100 feet	68	(794)
No street lights within 100 feet	32	(378)
140 attoor uitura mitritti i no teer	V-	(5, 5)

#### TABLE 1 concluded

[Percent]

Characteristics <sup>6</sup>	Case distribu				
Lighting with respect to point of entry		(405)			
Point of entry lighted	35	(405)			
Point of entry not lighted	65	(751)			
Visibility of point of entry:					
Point of entry visible	65	(757)			
Point of entry not visible	35	(400)			
Extent of alarm systems:					
Premises without alarms	84	(1,008)			
Premises with alarms	16	(188)			
Functioning of alarm systems:					
Alarm operated	49	(91)			
Alarm did not operate	51	(94)			
Security Inspection conducted:					
Security inspection	14	(161)			
No security inspection	86	(1,013)			
Target area:					
Northern California	37	(445)			
Southern California	63	(751)			
Dog on premises:					
Dog present	8	(59)			
Dog not present	92	(678)			
Serial numbers etched on property:					
Identifying serial numbers	9	(50)			
No identifying serial numbers	91	(672)			

<sup>a</sup>The first report in the series (Pope, 1977a) contains a detailed discussion of these characteristics and the procedures used to arrive at each dichotomy. The more extended presentation, however, is not essential for understanding the analysis undertaken in this report.

<sup>b</sup>The total number of cases for each variable may vary because of missing cases.

Overall, the distribution of cases among these variables is quite similar to those observed for the entire data set. (See Pope, 1977a.) For example, attempted burglaries account for 5 percent of all burglaries and 5 percent of those cleared by arrest. Similarly, 44 percent of all reported burglaries and 43 percent of those cleared by arrest occurred during the daylight hours.

However, the first report of this series showed that some of these variables were highly related to whether the offense was cleared. For example, burglaries resulting in no financial loss were substantially more likely to be cleared (whether by the arrest of an offender or other means) than were burglaries resulting in a financial loss. Eighteen percent of all reported burglary incidents evidenced no financial loss compared with 37 percent of those incidents cleared by arrest. Seventy percent of all

incidents cleared by arrest fall into the two lower-median income categories and only 35 percent fall into the two higher categories. Similarly, for median education completed, 7 percent of the incidents are included in the highest education category compared with 36 percent in the lowest education category. However, overall, Table 2 reveals a greater percentage of cases distributed in the higher income and educational categories when compared with the entire data set (N=8,137) (Pope, 1977).

TABLE 2 Distribution of burglary incidents cleared by arrest, by census tract characteristics

- 21	-		_		4
- 13	Pe	rc		nŧ	1

Census tract	Case distribution					
characteristics	Low	Lo	w-medium	Medium-high	High	, Total <sup>a</sup>
Median family income	33.5 (396)		31.6 (374)	23.4 (277)	11.4 (135)	99.9 (1,182)
Percant of labor force that is female	14.8 (175)		35.6 (421)	31.8 (376)	17.8 (210)	100.0 (1,182
Median educational level	35,5 (403)		34.8 (395)	22.6 (256)	7.1 (80)	100.0 (1,134)
Percent of population that is black	16.0 (189)		27.5 (325)	24.9 (294)	31.6 (373)	100.0 (1,181
Percent of homes that are owner-occupied	27.3 ⊴(315)		28.3 (326)	26.1 (301)	18.2 (210)	99.9 (1,152

<sup>a</sup>Totals may not add to 100.0 percent because of rounding.

reported burglaries involved residential structures, but only 61 percent of all burglaries cleared by the arrest involved residential structures. Other differences should be noted between those cases cleared by arrest and the larger data set. The former include a greater percentage of burglaries in which no force was used to gain entrance, no tools were utilized, and no property damage resulted.

Table 2 presents the distribution of burglary incidents by census tract characteristics for those cases cleared by arrest. Similar to the total data set, most of the cases fall into the lower education and income categories, and into areas with a high percentage of black population. Approximately 65 percent of the

## Results of the Cluster Analysis<sup>5</sup>

Analysis of these data resulted in three empirically and conceptually distinct offense dimensions consisting of the use and amount of force to enter a premise, the characteristics of the target area

<sup>&</sup>lt;sup>5</sup>Because the logic and procedures for cluster analysis can be quite complex, the discussion focuses primarily upon conceptual rather than empirical tasks. For a more detailed presentation the reader is referred to *Cluster Analysis* by Tryon and Bailey (1970).

(census tract), and the type of structure burglarized.6 Cluster analysis of the total 8,137 reported burglary incidents was also undertaken to compare the results with those obtained from the cases cleared by arrest.7 The data were randomly divided into two groups for cluster analysis. The results of the cluster analysis for both halves indicated three dimensions conceptually similar to those found for incident cases cleared by arrest. Thus, dimensions of burglary incidents were found to be constant across all data, whether cleared by arrest or not. Thus, these results support the overall reliability of the cluster solution.

For each case a composite cluster score<sup>8</sup> was computed on each of the three offense dimensions, which were labeled Force, Area, and Structure (Table 3). Scores were then grouped into similar profile patterns thereby forming distinct types. This process—known as object cluster analysis (or 0-analysis)—resulted in seven distinct, mutually exclusive incident types (I-types) as indicated in Table 3. Thus, I-type 1 includes those cases characterized

<sup>6</sup>The defining variables for each cluster dimension were as follows: first dimension—property damage occurring during the burglary, force used to enter structure, tool used; second dimension—median family income, median years education completed, percentage of homes owner-occupied, percentage of the population that is black; third dimension—burglar alarm system, type of structure burglarized.

7Often, questions arise concerning the reliability of cluster solutions. That is, some argue that cluster analysis capitalizes on chance variation and, therefore, solutions are likely to differ when used on similar data collected in different areas or for different time periods. If data are longitudinal in nature, one check on the reliability of cluster solutions would simply be to repeat the analysis at different points in time. Results can then be compared across time periods. Another reliability testing technique often used in social science research is that of split-half, that is, randomly dividing the data into two groups and then comparing the results in both groups. In order to provide some overall measure of the reliability of the cluster solution, it was decided to apply a split-half technique because the total data set contained a sufficient number of burglary incident cases (8,137) to support such a method.

<sup>8</sup>Although there are numerous ways to obtain cluster scores, the procedure decided upon was a simple sum scoring method. As Tryon and Bailey note:

The most meaningful weight matrix is the simple sum type... where the standard scores on a subset of variables form a composite score on that dimension; each variable participating in the composite does so with a weight of 1.00; the nondefining remaining variables contribut() a weight of .00. On common sense grounds this form of weighting makes dimensions easier to interpret than the case in which the variables show graded weights (1970:175).

by no force used to gain entry, relatively disadvantaged social areas, and nonresidential targets. In contrast, I-type 6 includes those burglaries in which force was used to enter residential structures in socially advantaged areas. Incident-type 7 contained the highest percentage of cases (32 percent) and incident-type 2 the lowest (4 percent). Homogeneity estimates, which simply measure how well the data "fit" the profiles of the objects in each 0-type, were generally quite high, indicating that the cases falling in each type exhibited very similar profile patterns. The closer the homogeneity estimate to value 1.000, the more alike the members of the profile are. A zero value would indicate that those objects in each core 0-type are completely unalike in their score profiles. In other words, their score profiles would be randomly distributed.

Offender variables were next entered into the variable cluster routine. The dichotomized values of these variables were:

- 1. Northern California/southern California
- 2. 17 years or younger/18 years or older
- 3. White/black-other
- 4. Male/female
- 5. Reasonable cause/other type of arrest
- 6. Single offender/multiple offenders
- 7. Burglary less than 1 mile from offender's residence/burglary 1 mile or more from offender's residence
- 8. Released by the police (complaint not filed)/held for prosecution (complaint filed or suspect transferred to the jurisdiction of another agency)
- No prior record of any kind/prior arrest record
- 10. Not under supervision/under supervision
- 11. No prior drug arrests/prior drug arrests
- 12. No prior burglary arrest record/prior burglary arrest record

Only one dimension of mutually colinear offender variables was derived. This dimension reflected the overall previous criminal history of apprehended burglary offenders. In addition to this dimension, two conceptually important variables were also included as dimensions. On the basis of previous analysis, an arrestee's race and the number of offenders involved in the incident were selected as the two variables most likely to discriminate among cases in

<sup>&</sup>lt;sup>9</sup>This dimension included the following variables: prior criminal record, prior burglary record, offender's age, criminal status at the time of arrest, and prior drug arrests.

TABLE 3 Cluster analysis solution for burglary incident characteristics

Type of burglary	Number of burglary	Percent of burglary	Homogeneity across attribute	Incid	ent cluster dime	nsion <b>s</b>
incident	incidents	incidents	dimensions	Force <sup>8</sup>	Area <sup>b</sup>	Structure <sup>C</sup>
I-Type 1	89	7.95	.9000	Low	Low	High
I-Type 2	48	4,29	.7788	Low	High	Low
I-Type 3	194	17,34	.8728	Low	High	High
I-Type 4	77	6.88	.8373	High	Low	Low
I-Type 5	277	24.75	.8529	High	Low	High
I-Type 6	79	7.06	.8704	High	High	Low
I-Type 7	355	31.72	.8572	High	High	High

<sup>&</sup>lt;sup>a</sup>This dimension includes property damage occurring during the burglary, force used to enter structure, and use of a tool.

the later 0-analysis. <sup>10</sup> The three offender dimensions thus consisted of the criminal history of burglary offenders, race (whether white or black/other), and the number of offenders involved in the incident (whether single or multiple offenders).

0-analysis of the data resulted in eight distinct criminal types (C-Types). C-Type 1, for example, included burglary offenders who had no prior record, were white, and worked alone; on the other hand, C-type 8 included black/other offenders who had prior records and worked in groups. Table 4 shows the overall homogeneity coefficients were quite high, indicating that cases within each of the C-Types displayed quite similar patterns across the three offender dimensions.

By using the above cluster analytic methods, a large body of burglary data could be reduced to a more manageable form, thus simplifying the analytic task. Aside from the large number of variables, most of which were nominally scaled, it was quite difficult to determine dependent and independent variable relationships. That is, for the most of the incident

characteristics it was not theoretically meaningful to differentiate between whether the variables were dependent or independent. The temporal order for many of these variables, for example, would be quite difficult to determine. Cluster analysis made the reduction of the complexity of the data possible by creating sets of multi-dimensioned nominal variables and then determining how cases distributed themselves among the resulting categories or sets.

Because the resulting I (incident) and C (criminal) types were derived from a matched data set, it is possible to include each type as a new variable in the analysis. Using these respective types as variables, a bivariate cross-tabulation can be produced that, aside from being conceptually clear, includes many of the complex relationships found among variables in the original data set. By cross-tabulating types of offenses with types of offenders it is possible to determine the extent to which the characteristics are interrelated.

#### Findings (Cluster Analysis)

The analytic findings reported in this section begin with an examination of the relationship between the offense and offender types that were derived earlier.<sup>11</sup> Tabular results presented here

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<sup>&</sup>lt;sup>b</sup>This dimension includes median family income, median years education completed, percent of owner-occupied homes, and percent of population that is black.

<sup>&</sup>lt;sup>C</sup>This dimension includes burglar alarm systems and the type of structure burglarized.

<sup>10</sup>The second and third dimensions each consisted of single defining variables. For the second variable race was utilized because, overall, it was less substantially correlated with the defining variables of cluster one, and therefore, thought to be a good discriminator. The third dimension was defined by the number of offenders in the incident, which was also correlated less with the definers of dimension one than were the other offender variables.

<sup>11</sup>The major findings are summarized and discussed on page 41.

TABLE 4 Cluster analysis solution for burglary offender characteristics

	Number of	Percent of	Momogeneity Percent of across		der cluster dime	r dimensions	
Type of offender	burglary offenders	burglary offenders	attribute dimensions	Criminal history <sup>8</sup>	Raceb	Crime partners <sup>C</sup>	
C-Type 1	122	10.20	.9787	Low	Low	Low	
C-Type 2	410	34.28	.9863	Low	Low	High	
C-Type 3	58	4.85	.9727	Low	Hlgh	Low	
C-Type 4	190	15.89	.9819	Low	High	High	
C-Type 5	116	9.70	,9682	High	Low	Low	
C-Type 6	147	12.29	.9651	High	Low	High	
C-Type 7	63	5.27	.9620	High	High	Low	
C-Type 8	90	7.52	.9676	High	High	High	

<sup>&</sup>lt;sup>a</sup>This dimension includes prior criminal record, prior burglary record, offender's age, criminal status at the time of arrest, and prior drug arrests.

show empirically whether and to what extent composite offense characteristics are related to offender characteristics. The remainder of this section is devoted to an analysis of the relationship between the cluster types and other incident characteristic variables such as the amount of financial loss and type of property stolen, variables that were excluded from the cluster analysis process. Singular attribute variables such as age, race, and sex are also examined with respect to the remaining incident and offender variables. Overall, these findings provide a comprehensive picture of those patterned relationships associated with the crime of burglary.

Table 5 presents the joint relationship between the seven offense I-Types and the eight offender C-Types. Both row and column percentages are shown in order to assess the degree to which these types are interrelated. The overall results displayed in Table 5 are informative but not as substantial as might be expected. If row or column percents that exceed the marginal percent distribution by 10 percent points were accepted as a criterion for establishing a substantial relationship, 12 only one relationship could then be considered substantial.

Although some interesting patterns are suggested in Table 5 the cross-tabulation of offense and offender types evidenced no predictive utility from one set to the other. That is, on the basis of these findings it must be concluded that there is no overall interrelationship between the eight offender types and the seven offense types.

# Type of Offender and Type of Property Stolen

In an effort to examine further the underlying nature of burglary, the offense and offender types were each cross-tabulated with the type of property stolen and the amount of financial loss as a result of the burglary. Table 6 provides information about the joint relationship between the eight offender C-Types and the type of property stolen. These data show that among the various offender types currency is most likely to be stolen during burglaries committed by white offenders who work alone and have no previous criminal record (C-Type 1), followed by those white offenders who work alone and have a prior record (C-Type 5). The proportion of cases in the former group (41 percent) compared with the

bThis dimension includes white versus black/other offenders.

<sup>&</sup>lt;sup>C</sup>This dimension includes single versus multiple offenders.

<sup>&</sup>lt;sup>12</sup>In the previous two reports a 10 percent point difference was utilized to evaluate the magnitude of observed relationships. That is, if a percent difference was 10 percent points or greater, then the relationship was considered substantial. If

the relationship showed less than a 10 percent point difference, it was not considered substantial. For a more detailed discussion of this procedure see Pope (1977a).

TABLE 5 Type of burglary incident, by type of offender

[Percent]

Type of burglary incident	C-Type 1 No criminal record White Single offender	C-Type 2 No criminal record White Multiple offendors	C-Type 3 No criminal record Black/other Single offender	C-Type 4 No criminal record Black/other Multiple offenders	
I-Typa 1					
Low force	9 <sup>a</sup>	33	9	23	
Low status area	7 <sup>b</sup>	7	15	11	
Nonresidential structures	(8)	(29)	(8)	(20)	
I-Type 2	5				
Low force	13	35	4	21	
High status area	5	4	4	6	
Residential structures	(6)	(17)	(2)	(10)	
I-Type 3					
Low force	9	41	3	20	
High status area	16	21	9	22	
Nonresidential structures	(18)	(80)	(5)	(39)	
I-Type 4					
High force	7	18	4	25	
Low status area	4	4	6	. 11	
Residential structures	(5)	(14)	(3)	(19)	
I-Type 5					
High force	12	28	7	20	
Low status area	28	20	33	31	
Nonresidential structures	(32)	(78)	(18)	(54)	
I-Type 6					
High force	9	34	5	. 4	
High status area	6	7	7	2	
Residential structures	(7)	(27)	(4)	(3)	
I-Type 7					
High force	11	41	4	8	
High status area	34	37	26	17	
Nonresidential structures	(39)	(145)	(14)	(30)	
Total	10	35		16	
	100	100	100	100	
	(115)	(390)	<b>(54)</b>	(175)	
<sup>a</sup> Row percent.		1			
<sup>b</sup> Column percent.					

total proportion of cases in which money was taken (20 percent) yields a difference of 21 percent points. Earlier, these two offender groups were found to be

randomly distributed across the seven offense types. (See Table 5.) If these offenders tend not to specialize in particular types of burglary but rather respond

**TABLE 5 concluded** C-Type 5 C-Type 7 C-Type 8 C-Type 6 Criminal record Criminal record Criminal record Criminal record Plack/other Total White White. Black/other Multiple offenders Single offender Multiple offenders Single offender 10 8 5 100 5 7 12 5 4 8 (9) (89) (4) (7) (4) 2 10 4 10 100 1 4 4 6 4 (5) (48)(1) (2) (5) 10 4 100 9 14 17 12 8 17 (18) (20)(7) (7) (194) 10 16 8 13 100 9 8 11 12 7 (12)(77) (8) (6)(10) 9 100 10 6 9 19 27 28 29 25 (28)(26)(16)(25)(277)10 22 6 10 100 8 12 9 9 7

(5)

4

25

(14)

5

100

(57)

as opportunities present themselves, it is logical that they would prefer currency because it is easy to remove from the premise and can be used im-

(17)

14

36

(50)

12

100

(/39)

(8)

10

36

(37)

9

100

(104)

mediately.

(8)

8

31

(27)

8

100

(86)

Hard salable items such as televisions, stereos, appliances, and similar commodities are shown to be

(79)

100

32

(356)

100

100

(1,120)

TABLE 6 Type of offender, by type of property stolen

[Percent] Type of property stolen Soft Hard Items Jewelry/ salable salable 1 from itemsb items<sup>8</sup> Drugs **Firearms** Total Type of offender Money furs safe C-Type 1 No criminal history 41° 38 3 0 100 4 12 3 21<sup>d</sup> 6 White 12 7 17 4 Ó 10 Single offender (33)(3) (10)(31)(2) (2)(0)(81)C-Type 2 No criminal history 2 23 9 8 51 7 100 1 White 42 26 31 50 36 100 34 38 (6) (261)Multiple offenders (59)(23)(22)(132)(17)(2) C-Type 3 0 No criminal history 16 11 16 51 0 5 100 Black/other 7 5 0 4 0 5 (37)Single offender (6)(4) (6)(19)(0)(2)(0)C-Type 4 0 0 No criminal history 16 5 14 56 9 100 Black/other 13 11 21 17 0 23 0 16 (126)Multiple offenders (20)**⊕(6)** (18)(71)(0)(11)(0)C-Type 5 Criminal history 28 7 9 51 3 3 0 100 White 13 9 7 17 4 O 9 Single offender (20)(5)(6)(36)(2)(2)(0) (71)C-Type 6 Criminal history 8 8 9 64 2 9 0 100 White 5 15 11 15 17 19 0 13 Multiple offenders (9)(100) (8) (8)(64)(2)(9)(0) C-Type 7 **Criminal history** 6 6 15 71 0 3 0 100 Black/other 6 6 0 2 0 1 Single offender (2) (2)(5) (24)(0)(1) (0)(34)C-Type 8 Criminal history 66 0 5 O 100 12 6 12 Black/other 5 10 0 6 0 11 9 Multiple offenders (8) (4) (8) (44)(0) (3) (3)(67)Total 20 7 11 54 2 6 0 100 100 100 100 100 100 100 100 100

0

(156)

(55)

(84)

(421)

(12)

(47)

(2)

(777)

<sup>&</sup>lt;sup>a</sup>For example, clothing and furniture.

bFor example, televisions and stereos.

<sup>&</sup>lt;sup>C</sup>Row percent,

dColumn percent.

targets of offender C-Types 6, 7, and 8. All of these types share some similar characteristics in that they include offenders who have previous criminal records. Other characteristics include white offenders who work in groups (C-Type 6), black/other offenders who work alone (C-Type 7), and black/other offenders who work in groups (C-Type 8).

# Type of Offender and Amount of Financial Loss

In an earlier report, a relationship was observed between the amount of loss and probability of clearance: burglaries in which no financial loss occurred were substantially more likely to be cleared than those in which a financial loss resulted (Pope, 1977a). Furthermore, a substantial relationship was noted between the amount of financial loss and whether or not the crime was cleared: burglaries resulting in small losses were most likely to be cleared. An examination of the relationship between the eight offender types and whether or not a financial loss occurred revealed that this variable was substantially related to two of the C-Types (tables not presented). Burglaries resulting in a financial loss included a disproportionate percentage of offenders in C-Type 2 (white offenders who work in groups and have no prior record). Those in C-Type 7, however (black/others who work alone and have a prior record) were most likely to be involved in burglaries in which no financial loss resulted (table not presented).

Table 7 provides a more detailed examination of the data for cases involving a financial loss of some type. There is a tendency for financial loss to increase as one moves from C-Type 1 to C-Type 8. The \$110 to \$149 category accounted for the greatest proportion of C-Type 1 cases (white offenders who work alone and have no previous record). The proportion of C-Type 1 cases in this group is 34 percent; the proportion of all cases cleared by arrest in this group is only 18 percent. Offenders found in C-Type 8 (black/others who work in groups and have previous records) are disproportionately clustered in burglaries with reported losses of \$1,000 or more. Offender types associated with the most frequent loss category, \$200 to \$499, include white offenders who work either alone or in groups and have previous criminal histories (C-Types 5 and 6). Although striking, this relationship is not surprising. Offenders involved in burglaries resulting in larger amounts of financial losses all share one common characteristic, a previous criminal history. It

could be argued, for example, that those with criminal experience (measured by previous arrests and/or convictions) are more likely to know which items are of most value and also to have established connections for the disposal of expensive goods. Those without criminal sophistication, which includes those 17 years or younger, may be more likely to steal currency or inexpensive items that can be easily disposed of.

#### Type of Offense and Type of Property Stolen

Type of property stolen and amount of financial loss were also cross-tabulated with the seven offense types to determine if similar relationships might exist for incident characteristics. Table 8 presents the joint relationship between the seven offense types and the type of property stolen. Examination of this table reveals that those offenses included in I-Types 4, 5, and 7 accounted for a large proportion of the category involving theft of currency. However, the proportion of cases for each incident type that involves the theft of currency does not vary dramatically among the I-Types. The largest proportion of cases within each I-Type is accounted for by the theft of hard salable items. It is interesting to note that each I-Type contains approximately the same proportion of the category "hard salable items" (e.g., home entertainment equipment). The proportion of cases in each of the I-Types in the hard salable items category do not exceed the proportion expected (54 percent) by more than 3 percent points. Thus, the theft of such items is not characteristic of any one type of burglary.

# Type of Offense and Amount of Financial Loss

In Table 9 the seven offense types are cross-tabulated with the amount of loss occurring during a burglary. Financial losses are relatively uncommon for the first three burglary offense types. In fact, offense Type 2 (nonforcible residential burglaries in high status areas) evidenced no reported financial losses. Separate examination of the seven offense types by financial loss versus no financial loss underscored this trend (table not presented). For those cases in which information about a financial loss was reported, the first three offense types were substantially more likely to involve no financial losses. These were all cases in which little or no force was used to gain entry. Overall, data in Table 9 show

TABLE 7 Type of offender, by amount of financial loss

[Percent]

	Amount of financial loss							
Type of offender	\$9 or less	\$10 to \$49	\$50 to \$99	\$100 to \$199	\$200 to \$499	\$500 to \$999	\$1,000 or more	Total
C-Type 1				0				
No criminal history	16 <sup>a</sup>	34	10	12	10	12	5	100
White	15 <sup>b</sup>	20	11	9	6	8	5	11
Single offender	(11)	(23)	(7)	(8)	(7)	(8)	(3)	(67)
C-Type 2	100				10 mg 1 mg			
No priminal history	22	23	10	14	16	11	5	100
White	68	46	34	36	31	25	18	37
Multiple offenders	(50)	(52)	(22)	(33)	(36)	(25)	(11)	(229)
A								
C-Type 3		_	40				_	
No criminal history	7	7	19	11	19	30	7	100
Black/other	3	2	8	3	4	8	3	4
Single offender	(2)	(2)	(5)	(3)	(5)	(8)	(2)	(27)
C-Type 4								
No criminal history	5	15	9	21	23	13	15	100
Black/other	5	11	11	19	16	11	19	13
Multiple offenders	(4)	(12)	(7)	(17)	(19)	(11)	(12)	(82)
C-Type 5	Parker of							
Criminal history	3	15	12	25	28	12	7	100
White	3	8	11	17	15	7	6	10
Single offender	(2)	(9)	(7)	(15)	(17)	(7)	. (4)	(61)
C-Type 6								<i>1</i>
Criminal history	6	11	11	6	30	23	14	100
White	7	8	14	6	21	19	19	14
Multiple offenders	(5)	(9)	(9)	(5)	(25)	(19)	(12)	(84)
C-Type 7								
Criminal history	0	9	13	0	47	00	40	400
Black/other	0	2	5	9 2	17 3	39	13	100
Single offender	(0)	(2)	(3)	(2)	(4)	9 (9)	5 (3)	4 (23)
	<b>\</b> _/	<b>,-</b> /	1-7	1-/	***		,0,	(23)
C-Type 8			40	40		o.=	20	
Criminal history	0	8	10	16	8	25	33	100
Black/other	0	4	8	9	3	12	25	8
Multiple offenders	(0)	(4)	(5)	(8)	(4)	(12)	(16)	(49)
Total	12	18	11	15	19	16	10	100
	100	100	100	100	100	100	100	100
	(74)	(113)	(65)	(91)	(117)	(99)	(63)	(622)

aRow percent. bColumn percent.

0

Type of burglary incident, by type of property stolen

[Percont]

	Type of property stolen							
Type of burglary incident	Money	Jewelry/ furs	Soft salable items <sup>a</sup>	Hard salable items <sup>b</sup>	Drugs	Firearms	items from safe	Tota
I-Type 1							· 2	
Low force	13 <sup>C</sup>	8	21	47	4.	8	0	100
Low status area	5 <sup>d</sup>	7	13	6	17	9	0	7
Nonresidential structures	(7)	(4)	(11)	(25)	(2)	(4)	(O)	(53
I-Type 2								ov.
Low force	17	14	- 11	57	0	0	0 .	100
High status area	4	9	5	5	0	0	0	5
Residential structures	(6)	(5)	(4)	(20)	(0)	(0)	(0)	(35
I-Type 3				in the second				
Low force	11	9	26	49	3	1	0	100
High status area	7	15	27	11	25	2	Ö	12
Nonresidential structures	(10)	(8)	(23)	(44)	(3)	(1)	(0)	(89
I-Type 4		=	-					
High force	29	2	3.	56	0	11	0	10
Low status area	12	2	2	8	0	15	0	8
Residential structures	(18)	(1)	(2)	(35)	(O)	· (7)	(0)	(63
I-Type 5								
High force	19	4	10	57	2	7	1	100
Low status area	24	15	23	27	25	30	100	25
Nonresidential structures	(37)	(8)	(19)	(11)	(3)	(14)	(2)	(19
i-Type 6								
High force	23	7	7	54	0	10	0	10
High status area	10	9	6	9	0	15	0	9
Residential structures	(16)	(5)	(5)	(38)	(O)	(7)	(0)	(71
I-Type 7				Jan Pili				
High force	23	9	8	54	<sup>1</sup> 2	5	0	100
High status area	39	44	24	34	33	30	Ŏ	35
Nonresidential structures	(61)	(24)	(20)	(143)	(4)	(14)	(0)	(266
Total	20	7	11	54	2	6	0	100
	100	100	100	100	100	100	100	100
	(115)	(55)	(84)	(416)	(12)	(47)	(2)	(771

aFor example, clothing and furniture. bFor example, televisions and stereos. CRow percent. dColumn percent.

C-17 1000

that the amount of reported financial loss is associated less with structural characteristics of burglary than with offender characteristics. That is, the relationships reported here are less substantial and more evenly distributed than those reported in Table 7.

#### Offense/Offender Types and Sex of **Apprehended Offenders**

The relationship between both the offense and offender types and sex of the apprehended burglary

TABLE 9 Type of burglary incident, by amount of financial loss

[Percent]

Type of burglary incident <sup>a</sup>	Amount of financial loss							
	\$9 or less	\$10 to \$49	\$50 to \$99	\$100 to \$199	\$200 to \$499	\$500 to \$999	\$1,000 or more	Total
I-Type 1	_							
Low force	Op	0	57	0	0	43	0	100
Low status area	OC	0	6	0	0	. 3	0	1
Nonresidential structures	(O)	<b>(</b> 0)	(4)	(O)	(0)	(3)	(O)	(7)
I-Type 3								
Low force	0	O	0	0	33	33	33	100
High status area	0	Q s	0	0	1	. 1	2	1
Nonresidential structures	(0)	(0)	(O)	(0)	(1)	(1)	(1)	(3)
I-Type 4								
High force	0	14	14	21	14	25	11	100
Low status area	0	7	12	14	7	15	10	9
Residential structures	(0)	(8)	(8)	(12)	(8)	(14)	(6)	(56)
I-Type 5 High force	9	23	14	15	17	13	10	100
Low status area	23	23 37	39	30	27	24	30	30
Nonresidential structures	(17)	(42)	(25)	(27)	(31)	(23)	(19)	(184)
I-Type 6	- 1 (S)						•	
High force	<b>4</b> ().	4	13	21	24	24	10	100
High status area	4	4	14	16	14	17	11	11
Residential structures	(3)	(3)	(9)	(14)	(16)	(16)	(7)	(68)
I-Type 7								
High force	18	20	6	12	20	13	10	100
High status area	73	53	29	40	52	41	48	49
Nonresidential structures	(54)	(60)	(19)	(36)	(61)	(39)	(30)	(299
Total	12	18	11	14	19	16	10	100
	100	100	100	100	100	100	100	100
	(74)	(113)	(65)	(89)	(117)	(96)	(63)	(617

all-Type 2 (nonforcible residential burglaries in high status areas) evidenced no reported financial loss.

Row percent.

Column percent.

offenders was also examined. Separate tables are not presented because few differences were noted; rather the major findings are summarized in the text. Multiple offender groups containing both male and female offenders were likely to be white. Females exhibited no previous criminal histories and generally engaged in multiple offender burglaries. Males, on the other hand, frequently worked alone and were likely to have a previous criminal record of some type. The distribution of male and female of-

fenders among the six remaining offender types proved to be quite similar. An examination of the offense I-Types showed that females tended to commit nonresidential burglaries in socially advantaged areas and were as likely as not to use force to gain entrance. Males, in comparison to females, were substantially more likely to commit burglaries of nonresidential structures using force in areas that were socially disadvantaged (table not presented).

# Offense/Offender Types and Distance From Residence to Burglary Site

Certain types of offenders commit burglaries close to their residences (table not presented). Those who committed burglaries less than 1 mile from their residence included both white and black/other offenders who had no previous criminal histories and worked in groups. Similarly, those who burglarized targets 1 mile or more from their homes included three offender types all evidencing previous criminal records. Other distinguishing characteristics included white offenders who worked singly or in groups and black/other offenders who worked in groups. Few relationships were found between distance from offender's residence to burglary target and the seven offense types. A moderate relationship, however, was apparent between this distance and both offender C-Type 2 and C-Type 5. Offenders who committed burglaries characterized by minimum force to gain entry, high status target areas, and residential structures, traveled 1 mile or more. Those who traveled less than 1 mile tended to burglarize nonresidential structures in low status areas using substantial force to gain entry.

## Offense/Offender Types and Temporal Characteristics

In a similar manner, day of the week and time of the day during which the burglary occurred were also examined in relation to the seven offense types and eight offender types. The data showed no relationship between either weekday or weekend and the seven offense types (table not presented). That is, each type of burglary was equally likely to occur on the weekend as during the week. Time of day, however, did show some relationship to the seven offense types. Those burglaries most likely to occur during the daytime hours included the following types: forcible entry burglaries of residential structures in low status areas (I-Type 4), and forcible entry burglaries of residential structures in high status areas (I-Type 6). The following relationships were found between time of day and offender types: black/other offenders who worked in groups and had no prior record (C-Type 4) were more likely to commit burglaries during the weekend, and black/other offenders who worked singly and who had a prior record (C-Type 7) were more likely to commit burglaries during the weekday. This latter group was also more likely to burglarize during the night.

# Summary of Offense/Offender Typological Analysis

The findings presented here generally did not support a strong relationship between the characteristics of burglary offenders and the types of burglary they commit. This lack of patterning was forcefully illustrated when the seven offense types were cross-tabulated with the eight offender types. Although some patterns were suggestive, they could not be considered substantial.

Because it was quite possible that the offerse and offender types might be related to other variables that had not been included as definers of the types, a more extensive analysis was undertaken. The eight offender C-Types were found to be substantially related to the amount of loss reported to the police. An offender's previous criminal history was the most important factor in determining financial loss; that is, those who had a previous criminal history were most likely to commit burglaries in which reported financial losses were quite high. Although certain offense and offender types were found to be associated with categories of specific variables, there were no substantial overall relationships.

# Analysis of Demographic Characteristics

There are still relationships that have not been explored (e.g., between sex of the burglary offender and temporal characteristics of reported burglary incidents). It may prove informative to examine some of the bivariate relationships between variables in order to refine earlier findings based on cross-tabulation of the offense and offender types. Hence, the following tables examine the joint relationship between the sex, race, and age of apprehended burglary offenders and various incident characteristics.

#### Sex

In Table 10, arrestee's sex is cross-tabulated with the temporal characteristics of those burglary

TABLE 10 Temporal characteristics of burglary incidents, by sex of apprehended offenders

[Percent]

Temporal	Sex		
characteristics	Male	Female	Total <sup>a</sup>
Time:			
Day	42	58	43
	(381)	(56)	(437)
Night	58	42	57
	(529)	(41)	(570)
Total	100	100	100
	(910)	(97)	(1,007)
Day:			
Weekday	67	80	69
	(694)	(83)	(777)
Weekend	33	20	31
	(334)	(21)	(355)
Total	100	100	100
	(1,028)	(104)	(1,132)
Season:			
Winter	28	27	28
	(305)	(30)	(335)
Spring/autumn	33	45	34
	(359)	(49)	(408)
Summer	39	28	38
	(422)	(31)	(453)
Total	100	100	100
	(1,086)	(110)	(1,196)

incidents that were cleared by arrest. Female offenders were substantially more likely than their male counterparts to commit burglaries during the weekday as opposed to the weekend. Eighty percent of the female offenders burglarized during the weekday compared with 67 percent of the male offenders. Similarly, female offenders (58 percent) were also substantially more likely than males (42 percent) to burglarize structures during the daylight hours. With respect to the season of the year during which these burglary incidents were reported, Table 10 shows that those burglaries cleared by arrest were substantially more likely to be reported during the summer months than during the winter months (38

percent versus 28 percent). For all burglary incidents that occurred during the project period, there was no difference with regard to the season of the year during which they were reported to the police. It may, however, be that the activity and interaction among people that occurs during the summer results in the discovery of burglaries that are in progress; therefore, burglaries are more likely to be reported to the police, which possibly results in more apprehensions. The proportion of males apprehended for burglaries committed during the summer months was greater than the proportion of females apprehended during these months (39 percent and 28 percent, respectively).

Prior record was subsequently introduced as a control variable to determine whether these initial relationships would change when the prior records of each group were similar. The data revealed that for those who had no prior record, females were still substantially more likely than males to commit burglaries on the weekdays during daylight hours, but for those with a prior record, sex showed no relationship to the part of the week during which burglaries occurred. The relationship observed be-

tween sex and time of day was not altered when both groups had a prior record, and no changes occurred in the correlation between month of reporting and sex when prior record was introduced as a control variable (table not presented).

Table 11 provides data on the methods employed in burglary incidents and the sex of apprehended offenders. Findings reported here are quite striking. Female burglars were substantially more likely to enter structures through the door than

TABLE 11 Methods employed in burglary incidents, by sex of apprehended offenders

[Percent]

	Se		
Method	Male	Female	Totala
Door	59	77	61
	(594)	(84)	(678)
Window	41	23	39
	(414)	(25)	(439)
Total	100	100	100
ivia	(1,008) ø	(109)	(1,117
No force	40	78	44
	(420)	(86)	(506)
Force	60	22	56
	(627)	(24)	(651)
Total	100	100	100
	(1,047)	(110)	(1,157
Tool	44	74	47
	(458)	(81)	(539)
No tool	56	26	53
	(578)	(28)	(606)
Total	100 n	100	100
	(1,036)	(109)	(1,145)
No damage	43	79	46
	(452)	(86)	(538)
Damage	57	21	54
	(603)	(23)	(626)
Total	100	100	100
	(1,055)	(109)	(1,164)

<sup>&</sup>lt;sup>a</sup>Total number of cases for each variable may vary because of missing cases,

6

were male burglars, and were consistently associated with lesser amounts of force than were males. That is, females were substantially more likely than their male counterparts to commit burglaries characterized by no force, no tools, and no damage to property. For example, although 79 percent of the burglaries committed by females involved no

damage to the property of others, only 43 percent of those burglaries committed by males involved no damage. Introduction of prior record as a control variable did not alter these relationships.

As the data in Table 12 indicate, female offenders (59 percent) were more likely to burglarize nonresidential structures than were their male coun-

TABLE 12 Selected characteristics of burglary incidents, by sex of apprehended offenders

[Percent]

		Sex	_
Characteristics	Male	Female	Tctal <sup>a</sup>
Type of structure:			
Residential	63	41	61
	(684)	(45)	(729)
Nonresidential	37	59	39
	(402)	(65)	(467)
Total	100	100	100
lotai	(1,086)		
	(1,000)	(110)	(1,196
Loss:			
No loss	37	32	37
	(330)	(30)	(360)
	*		
Loss	63	68	63
	(558)	(64)	(622)
Total	100	100	100
	(888)	(94)	(982)
Type of property stolen:	, .		
Money or hard salable items	69	32	64
	(543)	(34)	(577)
		Z.	••
Other	31	68	36
	(247)	(71)	(318)
Total	100	100	100
	(790)	(105)	(895)
Outcome:			
Attempted	6	1	5
	(61)	(1)	(62)
	1017	<b>***</b>	, <del>( - ,</del>
Completed	94	99	95
	(1,025)	(109)	(1,134
Total	100	100	100
	(1,086)	(110)	(1,196

<sup>&</sup>lt;sup>a</sup>Total number of cases for each variable may vary because of missing cases.

terparts (37 percent). Furthermore, females were somewhat more likely than males to commit burglaries in which a financial loss of some type resulted and were substantially more likely to steal commodities other than currency or hard salable items. These items were found to be those of the soft salable variety including furniture, bedding, and the like. Burglaries committed by male offenders were substantially more likely to result in attempts compared with those committed by female offenders. Again, the relationships in Table 12 continued when the prior records of each group were similar (table not presented).

#### Race

Table 13 compares the temporal characteristics of reported burglaries with the race of apprehended offenders. Unlike earlier findings on the relationship between time and an arrestee's sex, the temporal aspects of burglary were not associated with the racial characteristics of burglary offenders. Both white and black/other offenders were equally likely to commit burglaries on a weekday and during the daylight hours. Furthermore, no differences were noted among black/other and white offenders concerning the season of the year during which the

TABLE 13 Temporal characteristics of burglary incidents, by race of apprehended offenders

The second secon

[Percent]

Temporal			lace	
characteristics		White	Black/other	Total <sup>a</sup>
Time:				
Day		43	44	43
		(280)	(157)	(437)
Night		57	56	57
		(370)	(200)	(570)
				100
Total		100 (650)	100	100 %
<del>Plantage of the state of the s</del>	· · · · · · · · · · · · · · · · · · ·	(650)	(359)	(1,007)
Day:	•		Book and	
Weekday		71	65	69
		(518)	(259)	(777)
Weekend		29	35	31
		(215)	(140)	(355)
Total		100	100	100
, otal		(733)	(399)	(1,132)
		· · · · · · · · · · · · · · · · · · ·		
Season: Winter		00	05	28
AAttiret		30 (235)	25 (100)	(335)
		(200)	(100)	(000)
Spring/autumn		35	32	34
		(278)	(130)	(408)
Summer		35	43	38
	and the second s	(282)	(171)	(453)
Total		100 (795)	100 (401)	100
		(180)	(401)	(1,196)

<sup>&</sup>lt;sup>a</sup>Total number of cases for each variable may vary because of missing cases.

TABLE 14 Methods employed in burglary incidents, by race of apprehended offenders

Method	White	Race Black/other	Totai <sup>a</sup>
Door	66	51	61
	(483)	(195)	(678)
Window	34	49	39
	(253)	(186)	(439)
Total	100	100	100
	(736)	(381)	(1,117)
No force	49	33	44
	(376)	(130)	(506)
Force	(51	67	56
	(393)	(258)	(651)
Total	100	100	100
	(769)	(388)	(1,157)
No tool	52	38	47
	(396)	(143)	(539)
Tool	48	62	53
	(370)	(236)	(606)
Total	100	100	100
	(766)	(379)	(1,145
No damage	51	37	46
	(392)	(146)	(538)
Damage	49	63	54
	(382)	(244)	(626)
Total	100	100	100
	(774)	(390)	(1,164

burglaries were reported. Although white offenders were somewhat less likely than black/other offenders to commit burglaries that were reported during the summer months, this relationship is not substantial according to the 10 percent difference criterion. Only one relationship changed when prior record was utilized as a control variable. For those with no prior record, black/other offenders were more likely than white offenders to commit burglaries on the weekend, but no differences were noted when both groups had a prior record of some type.

Black/other offenders were substantially more likely than the white offenders to commit burglaries in which force was used to gain entry, a tool was utilized, and damage occurred to the property of the victim (Table 14). Sixty-seven percent of the black/other offenders compared with 51 percent of the white offenders committed burglaries in which force was employed. Black/other burglars (49 percent) were also substantially more likely than white burglars (34 percent) to enter structures through the window rather than the door. For those who had a

TABLE 15 Selected characteristics of burglary incidents, by race of apprehended offenders

=s ' ' a		****	Race	<del></del>	
Characteristics		White	Blac	k/other	Totala
Type of structure:					
Residential		61		61	61
		(484)	(	245)	(729)
Nonresidential		39		39	39
		(311)	(	401)	(467)
Total		100		100	100
	100	(795)		646)	(1,196)
_oss:					
No loss		33		43	37
110 1030		(221)		139)	(360)
	*.	(==:,		,00,	(000)
Loss		67		57	63
		(441)	(	181)	(622)
*					
Total		100		100	100
		(622)	(	320)	(982)
Type of property stol	en:		<del> </del>		
Money or hard sa	en. Jahla itams	63		67	64
money or mara so	ilabio itolila	(383)		194)	(577)
		(000)		10-1/	(3,7)
Other		37		33	36
		(223)		(95)	(318)
Total		100		100	100
		(606)		289)	(895)
Outcome: Attempted		4		7	5
Attomptod		(35)		(27)	(62)
		(00)	•		(5-7)
Completed		96		93	95
		(760)		374)	(1,134)
		the second			
Total		100		100	100
		(795)		401)	(1,196)

<sup>&</sup>lt;sup>a</sup>Total number of cases for each variable may vary because of missing cases.

prior record, black/other offenders were somewhat more likely than white offenders to use a tool and damage property in order to gain entrance, although these relationships were not substantial. For those with no prior record, however, black/other offenders were substantially more likely than white offenders to commit burglaries characterized by tools and property damage (table not presented).

There was no difference between black/other and white offenders concerning the type of structure burglarized. As Table 15 indicates, 61 percent of both black/other and white offenders selected residential targets. This relationship continued regardless of prior criminal record, as did the relationship between race and financial loss. Forty-three percent of those burglaries perpetrated by black/other offen-

TABLE 16 Temporal characteristics of burglary incidents, by age of apprehended offenders

Temporal	Ag	0	
characteristics	17 or younger	18 or older	Total <sup>a</sup>
Time:			
Day	49	38	43
	(247)	(190)	(437)
Night	51	62	57
	(258)	(312)	(570)
Total	100	100	100
	(505)	(502)	(1,007
Day:	• .		
Weekday	66	71	69
	(378)	(399)	(777)
Weekend	34	29	31
	(192)	(163)	(355)
Total	100	100	100
	(570)	(562)	(1,132
Season:			
Winter	23	34	28
	(138)	(197)	(335)
Spring/autumn	37	31	34
	(225)	(183)	(408)
Summer	41	35	38
	(247)	(206)	(453)
Total	100	100	100
	(610)	(586)	(1,196

<sup>a</sup>Total number of cases for each variable may vary because of missing cases.

ders resulted in no financial loss compared with 33 percent for white offenders. Black/other offenders were slightly more likely than white offenders to steal money or hard salable items, but there was only a 4 percent point difference. Black/other offenders were also somewhat more likely than their white counterparts to engage in burglaries resulting in attempts only, a relationship that became substantial when neither group had a prior record (table not presented).

#### Age

Data in Table 16 show that those 17 years of age or younger and those 18 years of age or older were

equally likely to commit burglaries on the weekends (66 percent and 71 percent, respectively). Juvenile offenders, however, were substantially less likely than adult offenders to burglarize during the night. Fifty-one percent of the juvenile offenders committed burglaries at night compared with 62 percent of the adult offenders. Although adult offenders (34 percent) were substantially more likely than juvenile offenders (23 percent) to commit burglaries that were reported to the police during the winter months, juveniles were more likely to commit burglaries that were reported during the spring/autumn and summer months. The relationships observed here could reflect that those 17 years of age or younger are more likely to be attending school dur-

ing the week and thus less likely to be out during the evening hours on school days. They are, however, likely to have free time to engage in burglary after school, on the weekends, and during the summer and spring/autumn months.

The data reported for the methods of entry show slight but not substantial relationships between juvenile and adult offenders. Fifty-seven percent of the burglars 17 years of age or younger entered structures through the door compared with 64 percent of the burglars 18 years or older (Table 17). Furthermore, juveniles were slightly more likely

than adults to commit burglaries in which no force was used to gain entry, no tool was used, and no property damage resulted.

Although those 17 and younger were slightly more likely than their older counterparts to burglarize nonresidential structures, this relationship was not substantial (Table 18). Sixty-eight percent of the juvenile offenders committed burglaries that resulted in financial losses compared with 59 percent of the adult offenders. When only those juvenile offenders with no prior adult record were considered, however, this relationship did prove to be

TABLE 17 Methods employed in burglary incidents, by age of apprehended offenders

[Percent]

Method	17 or younger	ge 18 or older	Totala	
Door	57	64	61	
	(326)	(352)	(678)	
Window	43	36	39	
	(242)	(197)	(439)	
Total	100	100	100	
	(568)	(549)	(1,117)	
No force	47	41	44	
	(273)	(233)	(506)	
Force	53	59	56	
-orda	(311)	(340)	(651)	
	(011)	(840)	(051)	
Total	100	100	100	
Total	(584)	(573)	(1,157)	
<del>arania de la composição de</del>		(0.4)	(.,,	
No tool	50	44	47	
	(294)	(245)	(539)	
Tool	50	56	53	
	(291)	(315)	(606)	
Total	100	100	100	
	(585)	(560)	(1,145)	
No domago	50	42	46	
No damage	(298)	42 (240)	(538)	
	(250)	(640)	(555)	
Damage	50	58	54	
-unugo	(297)	(329)	(626)	
	, , , , , , , , , , , , , , , , , , ,	. \ <del></del> /	V/	
Total	100	100	100	
	(595)	(569)	(1,164)	

<sup>&</sup>lt;sup>a</sup>Total number of cases for each variable may vary because of missing cases.

TABLE 18 Selected characteristics of burglary incidents, by age of apprehended offenders

	Age				
Characteristics	17 or younger	18 or older	Totaiª		
Type of structure:		1			
Residential	59	63	61		
	(358)	(371)	(729)		
			•		
Nonresidential	41	37	39		
	(252)	(215)	(467)		
Total	100	100	100		
	(729)	(467)	(1,196)		
Loss:					
No loss	32	41	37		
	(157)	(203)	(360)		
Loss	68	59	63		
	(334)	(288)	(622)		
Note that the second of the s	400	400	400		
Total	100 (491)	100 (491)	100 (982)		
	(491)	(491)	(902)		
Type of property stolen:					
Money or hard salable items	63	66	64		
	(294)	(283)	(577)		
Other	37	34	36		
Other	(170)	(148)	(318)		
	(170)	(140)	(0,0)		
Total	100	100	100		
	(464)	(431)	(895)		
Outcome:		<del></del>			
Attempted	4	6	5		
The second secon	(25)	(37)	(62)		
			(32)		
Completed	96	94	95		
	(585)	(549)	(1,134)		
Total	100	100	100		
	(610)	(586)	(1,196)		

Tiotal number of cases for each variable may vary because of missing cases.

quite substantial. Sixty-nine percent of the juveniles and 55 percent of the adults, respectively, engaged in burglaries in which a financial loss was reported (table not presented). Juvenile and adult offenders were about equally likely to steal money or hard salable items and to engage in burglaries that resulted in attempts only.

These data indicate that, although some relationships exist between offender and incident characteristics, most relationships are not strong and few could be considered substantial by a 10 percent difference criterion. The strongest relationships between offense and incident characteristics were observed for sex; these were followed by race, and age.

### Summary and Discussion

This report examined the extent to which the characteristics of burglary incidents and the characteristics of persons apprehended for their commission were related. Previous reports specified the nature and interrelationships of characteristics within each set.

Other studies focusing on violent and personal crime have shown that offenders and victims often form an interactive pattern in which certain kinds of offenders are likely to prey on certain kinds of victims and to exhibit distinct methods of attack. In a study of rape, for example, Amir discovered that older offenders preferred victims who were generally about 5 or 10 years younger (1971:55). Wolfgang found that choice of weapons and methods used to inflict death differed according to the race and sex of the offender (1958:32). Such studies have demonstrated that the correlates of violent crimes like homicide, rape, and robbery are not randomly distributed but rather are highly structured events as evidenced by the relationship between both the offender and his victim.

Although burglary is generally considered to be impersonal because the target is property rather than a human being, similar patterns might be evident. That is, it was generally supposed or hypothesized that burglary offenders who differ in age, race, sex, and other characteristics would exhibit preferences in the structures they burglarize, the property they steal, the manner in which they commit the crime, and in other factors as well. This supposition, however, was not entirely or completely substantiated by the data.

When the sex, race, and age of offenders were examined with the various characteristics of the burglary incident, the most substantial differences were noted for sex of the offender. Females, for example, were substantially more likely than males to burglarize nonresidential structures with no force or tool to gain entry and no damage to property. Black/other offenders were more likely to use a tool in forcible entries that resulted in property damage, but they were as likely as white offenders to select either residential or nonresidential targets. Few differences in burglary patterns were noted between those 17 years of age or younger and those 18 years of age or older. The latter group, however, was more likely to commit burglaries at night and during the winter months. Although there are some apparent differences when offense and offender characteristics are compared, these differences are not strong.

Regardless of how the data are viewed, then, there seems to be little overall relationship among offense and offender characteristics. With few exceptions, on the basis of the data used in this study, certain kinds of burglars do not commit certain kinds of burglaries. Unlike violent crimes in which there is an interactive pattern, burglary and other property crimes, as well, may reflect opportunity more than choice. Although this is not to say that burglaries are commonly committed without intent, it is probably true that burglary, more so than violent crimes, is randomly perpetrated. Homicide, rape, and assault are not generally stranger-tostranger crimes in that the perpetrator is likely to know the victim, at least in a casual way. On the other hand, the average burglar, although evidencing intent, is unlikely to be familiar with potential targets other than that they belong to a particular type such as residential or nonresidential structures.

Although it is possible that the results obtained here may be an artifact of the data rather than an underlying phenomenon of burglary, this does not seem to be the case. The characteristics of the burglary offenses in this study were found to be quite consistent with those found by other studies. Victim survey results and numerous studies based on police incident reports have consistently found the characteristics of burglary to be similar. In other more, in those few studies in which offender characteristics have been reported, the distribution of these characteristics did not differ greatly from those reported in this study.

There were, however, limitations in the types of variables available for analysis. If additional variables such as educational level, occupation, or employment status had been available, these may have been associated with incident characteristics. Unfortunately, there is no way of knowing. The present study, employing more incident and offender data than have previously been used, failed to find substantial interrelated patterns in offense and offender characteristics.

## Conclusions: The Nature of Burglary

In addition to the analysis of the link between offense and offender types, and between types and separate single variables of interest, other substan-

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tive areas, such as the interrelationships among offense characteristics only and among offender characteristics only, were examined. Because of the length and complexity of these analyses, three reports were necessary to appropriately present and discuss the findings. Yet, it is useful and instructive to synthesize all three, so the major findings and their implications are presented here.

Burglary is a broadly defined category of crime generally involving the theft of goods from the dwelling place of another. As with many other criminal offenses, the statutory definition of burglary has evolved through the years to meet the demands of a growing, complex society. For example, few of the original common law elements of burglary remain today. Thus, the crime of burglary may be committed during either the day or the night; it may involve the use of force to gain entry or it may not; it may result in an attempt only or it may be carried through to completion. Furthermore, the notion of a dwelling unit has been expanded in Federal and State statutes to include a wide variety of structures such as commerical units, garages, and tool sheds.

Although burglary frequently involves the use of force to gain entry, it is often popularized as a crime of stealth. As opposed to robbery and other violent crimes such as rape and assault, burglary is generally characterized by little, if any, confrontation between the perpetrator and intended victim (assuming the property owner as victim). Given the choice and an appropriate exit, the typical burglar would most often choose flight rather than a fight. The hallmark of the "professional" burglar, for example, is the ability to leave the scene of the crime without being detected. Rarely do even unskilled burglars enter premises that they know in advance are occupied. Available data consistently show that residential burglaries are more likely to be committed during day, and commercial burglaries at night, when both types of structures are most likely to be unoccupied. In Reppetto's recent study of residential burglary in the greater Boston metropolitan area, over 90 percent of those incidents reported to the police involved the burglary of unoccupied premises (1974:17). Similarly, the incidence of residential roberies was found to be quite small, constituting less than 10 percent of all reported robberies in Boston (Reppetto, 1974:26). The President's Commission on Law Enforcement and Administration of Justice estimated that less than 3 percent of all reported burglaries resulted in confrontation sufficient for them to be reclassified as robberies (1967a).

In light of such facts it is not surprising that burglary evokes less fear than violent crimes such as homicide, rape, robbery, and the like. Nationwide public opinion polls have shown that the percentage of citizens expressing a fear of walking alone at night has increased from 34 percent in 1965 to 41 percent in 1972 (Hindelang et al., 1973). Such expressed fear is understandable considering the increase in the number of rapes and assaults reported in most major cities throughout the country during that period. Newspapers and other popular accounts daily contain stories reporting attacks upon citizens that happen to be upon the streets at night. Yet it is quite well substantiated that the average citizen is far more likely to be the victim of a burglary than of other more violent types of criminal offense.

Both victim survey results and Uniform Crime Reports figures show the incidence of burglary to be substantially higher than that of homicide, rape, robbery, and aggravated assault. Of the seven major offenses reported to the police in 1972, burglary exhibited the highest rate per 100,000 inhabitants (Kelley, 1973:61). In that year, the burglary rate was 1126.1 per 100,000 compared with rates of 8,9 for murder, 22.3 for forcible rape, 179.9 for robbery. 186.6 for aggravated assault, 882.6 for larceny \$50 and over, and 423.1 for auto theft.<sup>13</sup> The burglary rate reported for 1972 represented an absolute increase of 36 percent for the 5-year period beginning in 1967. It is quite apparent from these and other figures that burglary is a ubiquitous crime, affecting the lives of millions of Americans. Another aspect of the seriousness of the burglary problem can be seen in the amount of economic loss occurring as a result of this criminal offense. Such losses generally run into the hundreds of millions of dollars per year. In 1972 for example, the estimated economic loss resulting from burglary was \$722 million (Kelley, 1973:21). These losses would be substantially higher if figures from those burglaries never reported to the police were included.

In light of the serious nature of burglary, it is surprising that relatively few research efforts have focused upon this criminal offense. Far less is known about burglary offenders, for example, than is known about rapists, assaulters, and robbers. Only recently have attempts been made to examine the correlates of burglary and establish relationships among incident characteristics, but such studies,

<sup>131972</sup> UCR data are presented here because they are the most comparable to the April 1972 to May 1973 reference period of the burglary data used in this report. However, the most current UCR data at the time of publication were for 1975. These data show similar relationships.

although growing in number, are not comprehensive.

This study contributes to the body of knowledge surrounding burglary and should be considered exploratory and descriptive. Accepting the premise that crime is a structured event, the crime of burglary was examined for patterned relationships. No attempt was made to construct a theory or to test a previously existing one because so little research had been done on this offense. The first task was to describe the nature of burglary, thus laying the foundation for future research and endeavors to construct a theory. The course of the investigation then followed three separate lines. First, an examination of the characteristics of burglary offenses was undertaken. This was followed by an examination of the characteristics of burglary offenders. Finally, the research focused upon interrelated patterns of offense and offender characteristics. The latter area was of primary import because so little research has been undertaken in this area.

#### **Patterns of Burglary**

A major finding of the research presented in this third report was the lack of any significant patterned relationship between the characteristics of burglary incidents and those offenders apprehended for their commission. Although some offense and offender variables were found to be related (for example, females were more likely than males to burglarize nonresidential structures), no overall pattern was evident. This was graphically illustrated when the offense and offender types were compared. Some patterns were suggestive, but the lack of any substantial relationship between offense types and offender types was quite apparent. Those individuals apprehended for burglary did not exhibit characteristics that differed substantially with regard to the kinds of burglary they committed. As mentioned earlier, this could be an artifact of the data because certain important offender variables such as education or income level were not available for analysis. Or it may well be that the offender characteristics are only randomly associated with offense characteristics.

The utility of creating and cross-classifying empirical typologies as an efficient method of crime-specific research has been given some support. The usefulness of any typology, of course, depends upon the purpose for which it is constructed. In the present study, the data were grouped into distinct offender and offense types in order to aid in examining

joint relationships. That such relationships were not found suggests the disutility of creating typologies without a concomitant attempt at verification. If, for example, those who commit burglary offenses do not differ substantially with respect to the types of burglary that they commit, then theoretical explanations based upon supposed differences would not be fruitful. It is not argued that the findings presented here are definitive, but neither can they be ignored. The task at hand would seem to be toward additional research, preferably with the inclusion of a greater range of offender information.

#### **Temporal Characteristics**

Analysis of the burglary incident data served to substantiate the findings of previous studies on the temporal aspects of reported burglary incidents. Residential burglaries were generally found to occur during the weekday and during the daylight hours.

Nonresidential structures were most likely to be burglarized during the weekdays at night. These relationships, however, were weaker when only the incidents that were cleared by arrest were considered. For cleared burglary incidents, there was less of a distinction between the part of the week during which burglaries were committed (weekday or weekend) and the type of structure burglarized (either residential or nonresidential). The relationship between time of the burglary and type of structure, however, was still quite substantial. That is, residential structures were substantially more likely to be burglarized during the daylight hours and nonresidential structures during the night. Attempted and completed burglaries were about equally likely to be committed during the daylight or evening hours and either on weekdays or weekends.

The type of structure burglarized was found to be unrelated to either the month or season (winter, spring/autumn, summer) during which burglaries were reported. Both residential and nonresidential burglaries were similarly distributed by season of the year. These data were compiled in California, a State with a rather temperate year-round climate. As a result, burglaries would probably not be expected to vary by season because winter months are not generally harsh enough to limit outdoor activity.

A comparison of offenders' demographic characteristics and temporal characteristics of offenses showed no differences between the day of the week during which burglaries were committed and the ages of apprehended offenders. Although offenders who were 18 years of age or older were

somewhat more likely to burglarize during the week, this relationship was not substantial. Those 17 years of age or younger, however, were substantially more likely than their older counterparts to burglarize during the daylight hours. This latter relationship is quite plausible because the activities of many juveniles are restricted by their parents during the evening hours. A prime time for many juvenile burglaries is the period from the end of school to dinnertime, approximately 3:00 p.m. to 6:00 p.m. Females were more likely than males to commit burglaries on a weekday and during daylight hours. No differences were found between the temporal characteristics of reported burglary incidents and whether the apprehended offender was white or black/other.

As noted earlier, most burglars try to avoid confrontation with the victim and thus choose times when residents or employees are likely to be absent. The data tend to support this supposition. Residential structures, therefore, are most vulnerable to burglaries during the day on weekdays and nonresidential structures most vulnerable at night during weekends. It is logical, then, to assert that extra precautions should be taken during these critical hours. These precautions may be as simple as making certain that doors and windows are locked before leaving homes or apartments for the day. Entry to many residences can be effected with little or no force, which may simply reflect the lack of foresight by citizens in taking such precautions. Thirty-eight percent of all reported burglaries, for example, involved nonforcible entries. This figure was found to be substantially higher for residential (43 percent) as opposed to nonresidential burglaries (27 percent).

#### Methods

As with many other types of criminal offenders, burglars frequently display distinct methods or ways of committing their crimes. Often, it is through these distinctive methods or modus operandi that known burglars are eventually apprehended. That is, unique methods may be traced to an ex-offender's criminal file, thus making him a prime suspect in a case if its patterns are similar to patterns found in past burglaries. Although the data upon which this study is based do not reflect the refined modus operandi of individual offenders, it does, nonetheless, yield some gross estimates focusing on the manner in which burglaries were effected. These data include the amount of force used to enter the structure, whether or not tools were used in the commission of

the burglary, and whether or not damage occurred to property. It is quite possible that certain types of burglary incidents or certain types of offenders may have been associated with distinctive patterns of force, tools, and damage.

These three characteristics reflecting modus operandi were found to be highly intercorrelated. Those burglaries characterized by the use of substantial force to gain entry were also likely to have been entered by the use of tools with resulting property damage. Approximately 60 percent of those reported burglary incidents involved forcible entries, use of tools, and damage to property. This relationship is not surprising, for the use of tools would generally mean that the entry was forcible and property damage would thus be likely to occur.

The modus operandi variables were found to be substantially related to the type of structure burglarized. Nonresidential as opposed to residential burglaries were more likely to be forcible entries in which tools were used and in which damage occurred to property. Nonresidential structures were also more likely than residential structures to be associated with various characteristics such as lighted entrance ways and alarm systems. Furthermore, all burglaries that were reported as attempts were characterized by forcible entries. The use of tools and property damage were also found to be associated with attempted burglaries, although the relationship was not as substantial as for forcible entries. Generally speaking, most burglaries reported to the police are completions rather than attempts. Attempted burglaries are less likely to be reported to the police, possibly because they are less likely to be discovered by the intended victim. The data reported here seem to substantiate this supposition. All attempted burglaries were forcible entries that were also characterized by the use of tools and damage to property. Hence, it is not unreasonable to assume that they were more likely to be discovered and subsequently reported to the appropriate authorities.

Certain offenders characteristics were also related to methods of entry. Females, for example, were substantially more likely than males to commit burglaries characterized by nonforcible entries, use of tools, and no property damage. Females were also more likely than their male counterparts to enter target structures through the door. Because these characteristics were found to be correlated with completed burglaries, one would expect burglaries committed by females to result in completion more often than those committed by males. The data supported this supposition. An opposite picture was presented for black/other offenders. Black/others were substantially more likely than their white counterparts to commit forcible burglaries in which tools were utilized with resulting property damage. Similarly, they were less likely than whites to be associated with completed burglaries. The data also showed that although those 17 years or younger were less likely than those 18 years or older to commit forcible burglaries, use tools, or have property damage occur, these relationships were not substantial.

#### **Attempted Versus Completed Burglaries**

Of the total burglary incidents reported in this study, a substantial proportion resulted in successful completions in that the offense was effectively carried out. Only approximately 5 percent of all reported cases were attempted, a figure that also held for burglaries cleared by the arrest of a suspect. Overall, the data showed the lack of any substantial relationship between attempted and completed burglaries and most of the remaining incident characteristics. Both residential and nonresidential burglaries, for example, were equally likely to result in attempts or completions. Burglaries with resulting property damage were more likely to be attempts compared with those having no property damage. The presence of a working alarm system was also found to be associated with attempted burglaries. As observed above, forcible entries and attempted burglaries were highly related in that for all attempted burglaries there was a forcible entry. Similarly, attempts and financial loss evidenced a logically necessitated relationship because all attempted burglaries involved no loss of property, although property may have been damaged.

Of most interest, however, was the absence of substantial relationships between attempted and completed burglaries and the various "target hardening" (deterrent) characteristics. One might expect that preventive techniques such as increased lighting, security inspections, or the presence of a dog would be likely to hamper burglars, thus resulting in more attempted than completed burglaries. The data, however, did not support this supposition. Few differences were observed between attempted and completed burglaries and the distribution of deterrent characteristics. Only two substantial relationships were noted: the presence of an alarm system and the presence of identifying serial numbers. First, premises that had alarm systems were substantially

more likely than those without alarm systems to result in attempted burglaries; second, those premises in which distinctive serial numbers had been etched into personal property were more likely to result in completed burglaries.

It should be reemphasized that attempted burglaries were unlikely to be reported to the police, or even discovered, unless there was some physical evidence that an attempted burglary had taken place. There is no way of knowing how many attempted burglaries went unnoticed by victims or how many potential burglars were deterred from even attempting the crime. Conclusions, therefore, should be tempered by such considerations.

Approximately 65 percent of all reported burglaries involved structures with street lights within 100 feet of the premises. This is probably more a result of chance than any planned action on the part of the victim. Most major cities provide street lighting in residential neighborhoods, and nonresidential structures are likely to provide their own lighting or, if located in downtown sections, take advantage of municipal lighting. Those premises with lighted entrance ways and those with unobstructed entrance ways accounted for approximately 30 percent of all reported burglaries. Alarm systems, security inspections, presence of dogs, and identifying serial numbers each accounted for approximately 10 percent of all reported cases.

#### **Burglary Clearances**

The data base also contained information pertaining to whether or not the offense was cleared and the means by which a clearance was effected (whether by arrest of the suspect, by the case being proved unfounded, or by other means). The greatest proportion of all cleared cases were cleared through the arrest of a suspect. The data were aggregated across the six jurisdictions with clearances dichotomized into those cases not cleared and those cleared by arrest. Financial loss was the variable most substantially associated with whether or not the offense was cleared. Thirty-four percent of those cases involving no financial loss were cleared, whereas only 15 percent of those cases in which a financial loss occurred were cleared. Furthermore, those burglaries in which reported financial losses were either in the low or high ranges were those most likely to be cleared by arrest. Although 34 percent of the cases reporting a financial loss of \$9 or less were cleared, 12 percent of the cases in the most frequent loss category (\$200 to \$499) were cleared by arrest.

Furthermore, 25 percent of the burglary offenses that reported financial losses of \$5,000 to \$9,999 resulted in clearances. In interpreting this relationship between clearance and loss one caveat is in order. Clearances covered only the 1-year time span of the study. Thus, although burglaries may have been cleared after the end of the project period, they would not be included within this data set.

Other variables rather consistently associated with the burglaries that were cleared include the use of tools and property damage. Burglaries characterized by no tool used to gain entry and no property damage were most likely to be cleared. These relationships were stronger for nonresidential burglaries than for residential burglaries. Deterrent characteristic variables were not associated in a consistent manner with whether the case was cleared or not. An exception, however, occurred for premises that had alarm systems. Burglaries occurring on premises having alarm systems were more likely to be cleared than those occurring on premises with no alarm system. The lack of an overall pattern suggests that cleared burglaries differ little from burglaries that were not cleared with respect to incident characteristics, a major exception being whether or not a loss occurred.

A possible explanation focuses upon the place where the apprehension was effected. It may be, for example, that many offenders were apprehended at the scene of the crime, thus accounting for the relationship between no loss and clearance. Manner of arrest includes the categories of reasonable cause versus all other. Types of arrest included under "other" include arrests on premises, citizen arrests, and arrests in which the offender was fleeing the scene of the crime. Table 19 presents the relationship between loss and manner of arrest (with the original nine categories). An examination of this table shows a substantial relationship between no financial loss and the first three categories of arrest. Arrests on premises (75 percent), fleeing the scene arrests (74 percent), and citizen arrests (69 percent) were substantially more likely to involve no financial loss than were acrests based on reasonable cause criteria (16 percent), warrants (17 percent), and all points bulletins (17 percent).

The data reported in Table 19 thus support the contention that no financial loss is associated with clearances simply because these were cases in which offenders were apprehended at the scene. Offenders most likely to be involved in burglaries resulting in no financial loss included males, those 18 years of age and older, and black/other offenders. The only

substantial relationship, however, was the relationship for black/other offenders. Forty-three percent of the black/other offenders committed burglaries with no reported financial losses compared with 33 percent for white offenders.

#### **Prior Criminal History**

Apprehended burglary offenders included in this study were most likely to be male (91 percent), white (66 percent), and almost equally divided between those 17 years or younger (51 percent), and those 18 years or older (49 percent). Unfortunately the data that were used in this study did not show whether juvenile offenders had prior juvenile criminal history, and thus criminal history refers to adult criminal records only. Thirty-three juveniles, however, did evidence previous convictions as adult offenders. Considering only those offenders 18 years of age or older, 80 percent had a prior record, 58 percent had a prior burglary record, 47 percent had prior drug arrests, and 44 percent were under supervision at the time of their arrest. These data thus indicate substantial criminal experience on the part of this apprehended offender group. Males were substantially more likely than females to have a prior record and also more likely to have a burglary record, a drug record, or to be under supervision. Black/other offenders were more likely than white offenders to have a previous burglary record, but the percentage of each of these offender groups exhibiting a previous drug record was about equal. White offenders were substantially less likely than black/other offenders to have a prior record; they were also less likely to be under commitment at the time of arrest.

#### **Mobility**

Another area of analysis was the mobility patterns of apprehended burglary offenders. Included in the data set was a variable that measured the distance (in miles) between an offender's residence and the site of the offense. This distance was dichotomized to include those who burglarized targets less than 1 mile from their residences (52 percent) and those who burglarized targets 1 mile or more from their residences (48 percent). Male burglary offenders were less likely than female offenders to commit an offense 1 mile or farther from their residences. Similarly, those 17 years or younger (34 percent) were substantially less likely than those 18 years or older (62 percent) to commit



TABLE 19 Whether or not loss resulted from burglary, by type of arrest of apprehended offenders

[Percent]

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						Type of arre	est				
		On premise	Fleeing scene	Citizen arrest	All points bulletin	Arrested on other charge	Warrant	Institu- tional hold	Reason- able cause	Other T	otal
No loss		75 (163)	74 (85)	69 (20)	17 (4)	0 (0)	17 (3)	O (O)	16 (85)	0 (0) (	37 (360)
Loss		25 (55)	26 (30)	31 (9)	83 (20)	100 (27)	83 (15)	100 (5)	84 (485)	100 (1) (	63 (620)
	Total	100 (218)	100 (115)	100 (29)	100 (24)	100 (27)	100 (18)	100 (5)	100 (543)		100 (980)

Although white offenders were slightly more likely than black/others to commit burglaries 1 mile or more from their residences, this relationship was not substantial. Interestingly, those with a prior burglary record were more likely than those without a prior burglary record to be represented in the 1 mile or more category. This relationship held for other criminal history variables as well, possibly indicating that those with prior records are more likely to travel to places where lucrative targets are thought likely.

Distance was also found to be associated with certain of the incident characteristic variables. That is, those who committed an offense 1 mile or more from their residence were most likely to burglarize nonresidential structures in which entries were nonforcible, no tool was utilized, and no damage resulted to property. These relationships are probably accounted for by the strong association between distance and sex. Female offenders were also found to exhibit characteristics similar to those listed above. Distance was also correlated with census tract characteristics. Those in the 1 mile or more category committed burglaries in areas with higher median family income, higher educational levels, and a lower percentage of black residents. Those who committed burglaries outside their own neighborhoods, therefore, seemed to choose relatively socially advantaged areas.

#### Single and Multiple Offender Burglaries

Thirty percent of the arrestees included in this study were offenders who committed burglaries alone as opposed to 70 percent who were involved in group burglaries. Offenders most likely to burglarize in the company of others included those 17 years of age or younger and female offenders. White and black/other offenders were equally likely to be involved in single or multiple offender burglaries. Those who worked in groups (younger offenders and females) were less likely to have previous criminal histories. Multiple offenders burglaries were also found to result in more financial loss than single offender burglaries. Earlier, it was noted that those burglaries that resulted in financial losses were less likely to be cleared than those that did not. Because number of crime partners is associated with financial loss, one would expect those who commit multipleoffender burglaries to be less often apprehended than single-offender burglaries, yet the multiple offender burglars constitute a substantial proportion of those included in the data set. Those 17 years of age or younger also constitute a substantial proportion of apprehended offenders and, as noted above, are most likely to commit burglaries in the company of others. Younger offenders who burglarize in groups, therefore, seem to face a high probability of apprehension.

#### **Police Screening**

Police control the initial flow of defendants into the criminal justice system by deciding under what circumstances an arrest is warranted and whether or not sufficient evidence exists to file a complaint against an arrested person. Data for police screening were dichotomized into those released without filing a complaint, and those for whom prosecution was initiated by filing a complaint or who were transferred to the jurisdiction of another agency. The data showed a strong relationship between dispositions and the age, race, and sex of apprehended offenders. Black/other offenders, those 18 years or older, and males were the types of offenders most likely to be processed for prosecution. When prior record was introduced as a control variable, however, black/other offenders were substantially more likely to be held for prosecution than were white offenders only in the no prior record category. For those offenders who had a previous criminal record, white offenders were more likely than black offenders to be held for prosecution, but the relationship was not substantial.

Other legal status variables were also found to be important in screening by the police. For example, offenders who were under some form of supervision at the time of arrest were more likely to be processed than those who were not. Although age, race, and sex differences were of less importance than previous criminal history, they were not altogether insignificant. Males, for example, generally fared worse than females, as did black/other offenders compared with white offenders in those groups that exhibited similar characteristics. It is unfortunate that additional judicial processing data were unavailable at the time of this study. Such data would have allowed us to examine the relevance of both social and legal status variables at other stages where decisions are made in the processing of criminal defendants.

#### **Methodological Observations**

This study examined the correlates of burglary that occurred in six separate police jurisdictions over a 1-year period. Because the study relied on official police data, it was limited in some respects by the problems inherent in using such data sources. For example, correlates of unreported burglaries could not be examined, although revelant findings from recent victimization studies were reviewed. Also, as in any ex post facto design, test conditions could not be manipulated because they were limited to the parameters established in the original California project. That is, although baseline data or data collected somewhat beyond the project period might have been preferable, such preferences were beyond control. Research is never perfect and most designs are plagued by shortcomings of one type or another. Thus, it would be worthwhile to note the limitations of the present undertaking.

#### Inability to Generalize

The data reported in this study were derived from selected target areas in six separate police agencies. Thus, it would not be appropriate to generalize these findings to other geographic areas. Similarly, relationships are specific to those census tracts for which incidents were reported and may not, in fact, be found in other parts of the respective jurisdictions. Nonetheless, one is struck by the consistency with which similar findings are reported in divergent research areas. That is, the characteristics of those burglary incidents reported in these reports and elsewhere are found to be quite similar regardless of the geographic area in which the research is undertaken.

#### Technique of Analysis

Although a number of different analytic techniques were used in these three reports to examine the correlates of burglary, there are some shortcomings associated with certain of these measures. Predictive Attribute Analysis (PAA) was used in the first two reports in this series. Turner points out the following about PAA: "PAA suffers from an over fitting bias, it capitalizes on chance variation" (1969:37). In such circumstances solutions are likely to be unreliable because observed relationships are influenced by random error. After having divided the data into two sets, northern and southern

California, the PAA analysis was rerun on both sets on the decision to hold or release the offender. Results were quite similar to those obtained when the entire data set was used. Although this split-half technique was not random, it should, nonetheless, increase the degree of confidence in the PAA results on the entire data set obtained for the police release decisions.

#### **Burglary Prevention Techniques**

Because of the problems associated with the original California burglary study (lack of baseline data, restrictive time frame, selected target areas, and the like), it was not possible to assess the overall effect of preventive techniques on the reduction of burglary. Had it been possible to do so, however, results here may have suggested some implications about the utility of future abatement programs, for example, whether police saturation of high burglary areas is effective in reducing the incidence of burglary.

#### **Burglary Target Areas**

Although socioeconomic differences were noted across those census tracts included in the target areas, all were, in effect, high crime areas. It would have been advantageous to include more diversified areas in the study.

Having listed some of the limitations of the study, some of the improvements this study offered over previous research endeavors in this area should be noted.

#### **Paucity of Burglary Research**

As noted at the outset, empirical research examining the correlates of burglary is quite rare and has only recently emerged. All of the literature reviewed earlier, for example, contain studies conducted subsequent to 1970. This study increases the substantive knowledge regarding the correlates of burglary and points to the need for additional research in this area.

#### Methodology

Previous research focusing on crime patterns has frequently followed a consistent methodological format. Generally, this format employs tabular analysis to the exclusion of other multivariate techniques. The limitations and advantages of tabular analysis

were stated earlier and need not be repeated at this point. The technique generally precludes the simultaneous consideration of many variables. The multivariate analysis undertaken in this study specified relationships among variables that may have been overlooked had tabular analysis alone been relied upon. Similarly, by employing cluster analysis, it was possible to reduce a multitude of variables to a more simple solution. Cluster analysis was also found to be an efficient technique for creating homogeneous groups of both offense and offender characteristics. Techniques of dimensional analysis (both cluster and factor solutions) would seem to be of great value in future crime-specific research of this nature.

#### **Missing Data**

For the most part the data used in this study were relatively complete. That is, information on most variables was missing on a surprisingly low percentage of cases. Only two variables, type of property stolen and amount of financial loss, had data missing on over 15 percent of the cases.

#### Reliability of the Data

Because these data were collected as part of a large-scale crime-specific burglary program, more faith has been placed in their accuracy than might otherwise have been the case. The accuracy with which burglary data are recorded in day-to-day police operations is at best uncertain. However, because this project was closely monitored by both the Bureau of Criminal Statistics and each respective police jurisdiction, there is less reason to doubt the accuracy with which burglary incident characteristics were recorded. Furthermore, the type of information recorded was relatively complete compared to the information about burglary characteristics reported in other studies. Although it would be possible to speculate on the type of additional variables that could have been included (e.g., victim characteristics), much more information was provided than has previously been available.

Because many of the relationships found in the data were logically expected (for example, attempted burglaries had no financial losses), there is even less reason to doubt the accuracy of the data. If it had been discovered that cases involving financial losses were found within the category of attempted burglaries, then recording errors would have been

suspected. Thus, there is some assurance that burglary data collected by the police were accurately coded by personnel working at the Bureau of Criminal Statistics.

The similarity of burglary incidents, regardless of the geographic area in which they occur, is quite striking. This study has confirmed the findings of previous studies relying on police incident data for analysis. For example, residential burglaries are most apt to occur on weekdays during the daylight hours and nonresidential burglaries on weekends during the nighttime. Most burglaries are characterized by forcible entries and relatively few attempted burglaries are reported to the police. Findings such as these have been consistently reported by research projects conducted in quite divergent geographic areas. Furthermore, victim survey results have found similar characteristics. That is, characteristics of burglary incidents reported in victimization studies are generally similar to those found when official data are used.

Although there is no way of knowing the characteristics of burglary offenders who were not arrested, those offenders who were arrested and those who were not, seem to be committing the same types of burglaries. Furthermore, these burglaries do not seem to be the type likely to be committed by persons skilled at their trade. These data, then, lend some measure of support to Shover's (1971) observations about the type of burglary offender emerging today: an occasional, unskilled offender who evidences little sophistication, planning, or specialization.

The results obtained here are suggestive but not final. In order to examine burglary patterns over time, longitudinal data containing information on both offense and offender characteristics are needed. Unfortunately, however, even data to support research of the present type are not generally available. It was only because of the special nature of the California project that the analysis undertaken for these reports was made possible. In order to increase knowledge about the nature of crime and those who engage in it, adequate data collection systems must be instituted and maintained. If refined data, such as those used in this study, were generally to be maintained along with information on judicial and correctional outcome, researchers would be able to add even more to the present knowledge of burglary incident and offender characteristics and interrelationships.

#### **REFERENCES\***

- 1970 "Survey Discloses Pattern in Crime." NCCD News, 49:14-32.
- 1922 A Burglar in the Clutch of Circumstance: My Own Stery. New York: D. Appleton and Company.

Amir, Menachem

1971 Patterns in Forcible Rape. Chicago: The University of Chicago Press.

Anderberg, Michael R.

1973 Cluster Analysis for Applications. New York: Academic Press.

Bailey, Kenneth D.

1975 "Cluster Analysis," in David R. Heise (ed.), Sociological Methodology 1975. San Francisco: Jossey-Bass, Inc.

Black, Susan

1963 "A Reporter at Large: Burglary I."

New Yorker 39 (December 7).

1963a "A Reporter at Large: Burglary II."

New Yorker 39 (December 14).

Blalock, Hubert M., Jr.

1972 Social Statistics. New York: McGraw-Hill Book Co.

1964 Causal Inferences in Nonexperimental Research. Chapel Hill: The University of North Carolina Press.

Block, Herbert A. and Gilbert Geis

1962 Man, Crime, and Society. New York: Random House.

Boggs, Sarah L.

The Ecology of Crime Occurrence in St. Louis: A Reconceptualization of Crime Rates and Patterns. Ph.D. Dissertation. Washington University.

Bohrnstedt, George W. and T. Michael Carter 1972 "Robustness in Regression Analysis," in Herbert L. Costner (ed.), Sociological Methodology 1971. San Francisco: Jossey-Bass, Inc. California Department of Justice

1971 Crimes and Arrests. Sacramento:
Division of Law Enforcement, Bureau
of Criminal Statistics.

1971a Felony Defendants Disposed of in California Courts 1971. Sacramento: Division of Law Enforcement, Bureau of Criminal Statistics.

1970 Safe Burglars in California: An Analysis of Selected Offenses. Sacramento: Division of Law Enforcement, Bureau of Criminal Statistics.

Cameron, Mary Owen

1964 The Booster and the Snitch: Department Store Shoplifting. New York:
The Free Press.

Chappell, Duncan

1965 The Development and Administration of the English Criminal Law Relating to Offenses of Breaking and Entering. Ph.D. Dissertation. University of Cambridge.

Chimbos, Peter D.

1973 "A Study of Breaking and Entering Offenses in 'Northern City,' Ontario." Canadian Journal of Criminology and Corrections 15:316-25.

Clarke, Steven H.

1972 Burglary and Larceny in Charlotte-Mecklenburg: A Description Based on Police Data. The Mecklenburg Criminal Justice Planning Council.

Clinard, Marshall B.

1963 Sociology of Deviant Behavior. New York: Holt, Rinehart and Winston, Inc.

Clinard, Marshall B. and Richard Quinney

1967 Criminal Behavior Systems—A
Typology. New York: Holt, Rinehart
and Winston. Inc.

Cocke, Susan B.

1969 "Reformation of Burglary." William and Mary Law Review 11 (Fall):211-25.

<sup>\*</sup>This bibliography provides a complete listing of all references used in this series of reports.

Cohen, Lawrence E.

1974 Conferring the Delinquent Label: The Relative Importance of Social Characteristics and Legal Factors in the Processing of Juvenile Offenders. Ph.D. Dissertation. University of Washington.

Conklin, John E.

1972 Robbery and the Criminal Justice System. New York: J.B. Lippincott Company.

Conklin, John E., and Egon Bittner

1973 "Burglary in a Suburb." Criminology 11(August): 206-32.

Cooley, William W. and Paul R. Lohnes

1971 Multivariate Data Analysis. New York: John Wiley and Sons.

Davis, Kenneth C.

1971 **Discretionary Justice.** Chicago: University of Chicago Press.

Dunn, Christopher S.

1974 The Analysis of Environmental Attributes/Crime Incident Characteristic Interrelationships, Ph.D. Dissertation. State University of New York at Albany.

Ennis, Phillip H.

1967 Criminal Victimization in the United States: A Report of a National Survey, Field Surveys II, A report of a research study submitted to the President's Commission on Law Enforcement and Administration of Justice.

Erikson, Maynard

1973 "Group Violations and Official Delinquency: The Group Hazard Hypothesis." Criminology 11(August): 127-60.

Feyerherm, William H.

1974 Offenses Known in New York State.
Statistical Report 1. Crime Measurement Laboratory, School of Criminal Justice, State University of New York at Albany.

Gibbons, Don C.

1973 Crime, Society and Criminal Careers. Englewood Cliffs, N.J.: Prentice-Hall. Gibbons, Don C. and Donald L. Garrity

1959 "Some Suggestions for the Development of Etiological and Treatment Theory in Criminology," Social Forces 38(October):51-58.

Girard, Paul J.

1960 "Burglary Trends and Protection."

Journal of Criminal Law, Criminology and Police Science 51 (January/February): 511-18.

Glaser, Barney G. and Anselm T. Strauss

1967 The Discovery of Grounded Theory. Chicago: Aldine Publishing Company.

Gould, Leroy C.

"The Changing Structure of Property Crime in an Affluent Society." Social Forces 48(September):50-59.

Gray, Patrick L.

1972 Crime in the United States: Uniform Crime Reports. Washington, D.C.: U.S. Government Printing Office.

Hagan, John

1974 "Extra Legal Attributes and Criminal Sentencing: An Assessment of a Sociological Viewpoint." Law and Society Review 8(Spring):357-83.

Hakeem, Michael

1945 "Parole Prediction Variables and the Time Factor in Violations by Burglars." Journal of Criminal Law, Criminology and Police Science 35(3):157-65.

Hall, Jerome

13

1968 "Theft, Law and Society." American Bar Association Journal 54 (October): 960-67.

1952 **Theft, Law and Society.** Indianapolis: Bobbs-Merrill.

Hindelang, Michael J.

1976 An Analysis of Victimization Survey
Results from the Eight Impact Cities.
U.S. Department of Justice, Law Enforcement Assistance Administration,
National Criminal Justice Information
and Statistics Service. Washington,
D.C.: U.S. Government Printing
Office.

1976a "With a Little Help From Their Friends: Group Participation in Reported Delinquent Behavior." British Journal of Criminology 16(April):109-25.

1971 "The Social Versus the Solitary Nature of Delinquent Involvements."

1. (April):167-75.

Hindelang, Michael J. and Carl E. Pope
1975 "Sources of Research Data in Criminal Justice," in Emilio Viano (ed.),

Role of Research in Criminal Justice. Boston: D.C. Heath and Company.

Hindelang, Michael J. and Joseph G. Weis

1972 "Personality and Self-Reported Delinquency: An Application of Cluster
Analysis." Criminology 10(Novem-

ber): 268-94.

Hindelang, Michael J., et al.

1973 Sourcebook of Criminal Justice Statistics 1973. Washington, D.C.: U.S. Government Printing Office.

Hirschi, Travis and Hanan C. Selvin

1967 Delinquency Research: An Appraisal of Analytic Methods. New York: The Free Press.

Hopkins, Andrew

1974 "The Use of Clustering Techniques in the Construction of Crime Indexes."

Journal of Research in Crime and Delinquency (forthcoming).

Kelly, Clarence M.

1973 Crime in the United States: Uniform Crime Reports. Washington, D.C.: U.S. Government Printing Office.

Kerlinger, Fred N. and Elazar J. Pedhazur
1973 Multiple Regression in Behavioral
Research. New York: Holt, Rinehart
and Winston, Inc.

Kittrie, Nicholas

1971 The Right to be Different: Deviance and Enforced Therapy. Baltimore: The John Hopkins Press.

Klein, Malcolm, et al.

1974 "The Ambiguous Juvenile Arrest."
Paper presented at the annual meeting of the Society for the Study of Social Probleems, Montreal, Canada.

Korn, Richard R. and Lloyd W. McCorkle

1959 Criminology and Penology. New York: Holt, Rinehart and Winston, Inc.

LaFave, Wayne R.

1965 Arrest: The Decision to Take a Suspect Into Custody. Boston: Little, Brown and Company.

Loth, David

1972 Crime in the Suburbs. New York: William Morrow and Company.

Lottier, Stuart

1938 "Distribution of Criminal Offenses in Metropolitan Regions." Journal of Criminal Law, Criminology and Police Science 29(May-June):37-50.

1938a "Distribution of Criminal Offenses in Sectional Regions." Journal of Criminal Law, Criminology and Police Science29(3):329-44.

MacNaughton-Smith, P.

1965 Some Statistical and Other Numerical Techniques for Classifying Individuals. London: Home Office.

McQuitty, Louis L.

"Capabilities and Improvements of Linkage Analysis as a Clustering Method." Educational and Psychological Measurement 24 (Summer): 441-56.

1963 "Rank Order Typal Analysis." Educational and Psychological Measurement 23(Spring):55-61.

1957 "Elementary Linkage Analysis for Isolating Orthogonal and Oblique Types and Typal Relevancies."

Educational and Psychological Measurement 17(Summer):207-29.

Normandeau, Andre

1968 Trends and Patterns in Crimes of Robbery. Ph.D. Dissertation, University of Pennsylvania.

Pittman, David J. and William Handy

1964 "Patterns in Criminal Aggravated Assault." Journal of Criminal Law, Criminology and Police Science 55(December):462-70.

Pope, Carl E.

- 1977 Crime-Specific Analysis: The Characteristics of Burglary Incidents.

  Analytic Report SD-AR-10. U.S. Department of Justice, Law Enforcement Assistance Administration, National Criminal Justice Information and Statistics Service. Washington, D.C.: U.S. Government Printing Office.
- 1977a Crime-Specific Analysis: An Empirical Examination of Burglary Offender Characteristics. Analytic Report SD-AR-11. U.S. Department of Justice, Law Enforcement Assistance Administration, National Criminal Justice Information and Statistics Service. Washington, D.C.: U.S. Government Printing Office.
- 1975 Offender-Based Transaction
  Statistics: New Directions in Data
  Collection and Reporting. Analytic
  Report SD-AR-5. U.S. Department of
  Justice, Law Enforcement Assistance
  Administration, National Criminal
  Justice Information and Statistics
  Service. Washington, D.C.: U.S.
  Government Printing Office.
- 1975a Sentencing of California Felony Offenders. Analytic Report SD-AR-6. U.S. Department of Justice, Law Enforcement Assistance Administration, National Criminal Justice Information and Statistics Service. Washington, D.C.: U.S. Government Printing Office.
- 1975b The Judicial Processing of Assault and Burglary Offenders in Selected California Counties. Analytic Report SD-AR-7. U.S. Department of Justice, Law Enforcement Assistance Administration, National Criminal Justice Information and Statistics Service. Washington, D.C.: U.S. Government Printing Office.

President's Commission on Law Enforcement and Administration of Justice

- 1967 Task Force Report: Crime and Its Impact—An Assessment. Washington, D.C.: U.S. Government Printing Office.
- 1967a The Challenge of Crime in a Free Society. Washington, D.C.: U.S. Government Printing Office.

Reckless, Walter C.

1973 The Problem of Crime. New York: Appleton-Century-Crofts.

Reiss, Albert J., Jr.

- 1969 "Field Survey" Appendix A of U.S. Congress, Senate Select Committee on Small Business. Crime Against Small Business. Washington, D.C.: U.S. Government Printing Office.
- "Offenses of Burglary, Robbery and Shoplifting Against Businesses or Organizations in Eight Police Precincts of Three Cities." Report to the President's Commission on Law Enforcement and the Administration of Justice. Washington, D.C.: U.S. Government Printing Office.
- 1966a "Place of Residence of Arrested Persons Compared with Place Where the Offense Charged in Arrest Occurred for Part I and Part II Offenses." Report submitted to the President's Commission on Law Enforcement and Administration of Justice. Ann Arbor, Michigan: University of Michigan.

Reppetto, Thomas A.

1974 Residential Crime. Cambridge, Mass.; Ballinger Publishing Co.

Rockwell, J.W.

1972 "Crime Specific—An Answer." **Folice** Chief 39(September):38-43.

Roebuck, Julian B.

1967 Criminal Typology. Springfield, Ill.: Charles C. Thomas.

Roebuck, Julian B. and Mervyn L. Cadwallader
1961 "The Negro Armed Robber as a Criminal Type: The Construction and Application of a Typology." Pacific
Sociological Review 4(Spring):21-6.

Rosenberg, Morris

1962 "Test Factor Standardization as a Method of Interpretation." Social Forces 41(October):53-61.

Rummell, R.J.

12

1972 The Dimensions of Nations. London: Sage Publications.

1970 Applied Factor Analysis. Evanston, Ill.: Northwestern University Press.

Santa Clara Criminal Justice Pilot Program

1972 **Burglary in San Jose.** Springfield, Va.: U.S. Department of Commerce.

Scarr, Harry A.

1973 Patterns of Burglary (2nd Edition).
Washington, D.C.: U.S. Government
Printing Office.

1973a "The Nature and Patterning of Residential and Nonresidential Burglaries," Criminal Justice Monograph: Deterrence of Crime in and Around Residences. Washington, D.C.: U.S. Government Printing Office, pp. 78-112.

1972 Patterns of Burglary. Washington, D.C.: U.S. Government Printing Office.

Schmid, Calvin F.

1960 "Urban Crime Areas, Part II."

American Sociological Review
25(October):655-78.

Schrag, Clarence

1961 "A Preliminary Criminal Typology."

The Pacific Sociological Review
4(Spring):11-16.

Schultz, Thomas A.

1970 "Criminal Law—Burglary—A Summer Home is an Uninhabited Dwelling During the Time When It's Unoccupied." University of Cincinnati Law Review 39(Spring):421-26.

Schur, Edwin M.

1965 Crimes Without Victims. Englewood Cliffs, New Jersey: Prentice-Hall.

Sellin, Thorsten and Marvin E. Wolfgang
1964 The Measurement of Delinquency.
New York: John Wiley and Sons.

Shover, Neal

1973 "The Social Organization of Burglary." Social Problems 20(Spring):499-513.

1971 Burglary as an Occupation. Ph.D. Dissertation. University of Illinois at Urbana-Champaign.

Siegal, Sidney

1956 Nonparametric Statistics. New York: McGraw-Hill Book Co.

Silverman, Robert Allan

1971 Victims of Delinquency. Ph.D. Dissertation, University of Pennsylvania.

Simon, Frances H.

1971 Prediction Methods in Criminology.

London: Home Office.

Skolnick, Jerome H.

1966 **Justice Without Trial.** New York: John Wiley and Sons.

Small Business Administration

1969 Crime Against Small Business.
Report submitted to the U.S. Senate
Select Committee on Small Business.
Washington, D.C.: U.S. Government
Printing Office.

Sneath, Peter H. and Robert R. Sokal

1973 Numerical Taxonomy. San Francisco: W.H. Freeman.

Sutherland, Edwin H.

1937 The Professional Thief. Chicago: University of Chicago Press.

Sutherland, Edwin H. and Donald R. Cressey
1970 Criminology, New York; J.B. Lippin-

cott Company.

System Development Corporation

1974 Crime-Specific Burglary Prevention Handbook. State of California, Office of Criminal Justice Planning.

Tryon, Robert C.

1958 "Cumulative Communality Cluster Analysis." Educational and Psychological Measurement 18 (Spring):1-35.

1958a "General Dimensions of Individual Differences: Cluster Analysis vs. Multiple Factor Analysis." Education and Psychological Measurement 18(Autumn):477-95.

1957 "Communality of a Variable: Formulation by Cluster Analysis." Psychometrika 22(September):241-60.

Tryon, Robert C. and Daniel E. Bailey
1970 Cluster Analysis. New York:
McGraw-Hill Book Co.

Turner, Stanley

1969 "The Ecology of Delinquency," in Thorsten Sellin and Marvin E. Wolfgang (ed.) Delinquency: Selected Studies. New York: John Wiley and Sons.

U.S. Department of Justice

1972 San Jose Methods Test of Known Crime Victims. Statistics Technical Report No. 1. Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice, Statistics Division. Washington, D.C.: U.S. Government Printing Office.

Von Hentig, Hans

1948 The Criminal and His Victim. New Haven: Yale University Press.

Warren, Marguerite Q.

1971 "Classification of Offenders as an Aid to Efficient Management and Effective Treatment." Journal of Criminal Law, Criminology and Police Science 62(June):239-58.

West's Annotated California Codes

1970 **Penal Code** §§ 459 to 680. St. Paul, Minn.: West Publishing Co.

Wickersham, George W.

1968 Report on Criminal Statistics.

Montclair, N.J.: Patterson Smith.

Originally published by the U.S.

Government Printing Office, 1931.

Wilbanks, William L.

1972 The Predictive Efficiency of Alternative Methods of Construction of Parole Tables. Master's Thesis. State University of New York at Albany.

Wilkins, Leslie T. and P. MacNaughton-Smith

1964 "New Prediction and Classification Methods in Criminology." Journal of Research in Crime and Delinquency 1(January):19-32.

Wormeli, P.K. and S.E. Kolodney

1972 "The Crime-Specific Model: A New Criminal Justice Perspective." Journal of Research in Crime and Delinquency 9(January):54-65.

Wolfgang, Marvin E.

1958 Patterns in Criminal Homicide. New York: John Wiley and Sons.

Zeisel, Hans

1968 Say It With Figures. New York: Harper and Row.

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#### USER EVALUATION QUESTIONNAIRE

Crime-Specific Analysis: An Empirical Examination of Burglary Offense and Offender Characteristics Analytic Report No. 12

#### Dear Reader:

CUT ALONG THIS LINE

The Criminal Justice Research Center and the Law Enforcement Assistance Administration are interested in your comments and suggestions about this report, produced under the Utilizair of Criminal Justice Statistics project. We have provided this form for whatever opinions you wish to express about this report. Please cut out both of these pages, staple them together on one corner, and fold so that the Law Enforcement Assistance Administration address appears on the outside. After folding, use tape to seal closed. No postage stamp is necessary. Thank you for your help.

1.	For what purpose did you use this report?	
2.	For that purpose, the report— ☐ Met most of my	needs□Met some of my needs□Met none of my needs
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	□ Data source □ Teaching material	Other (please specify)
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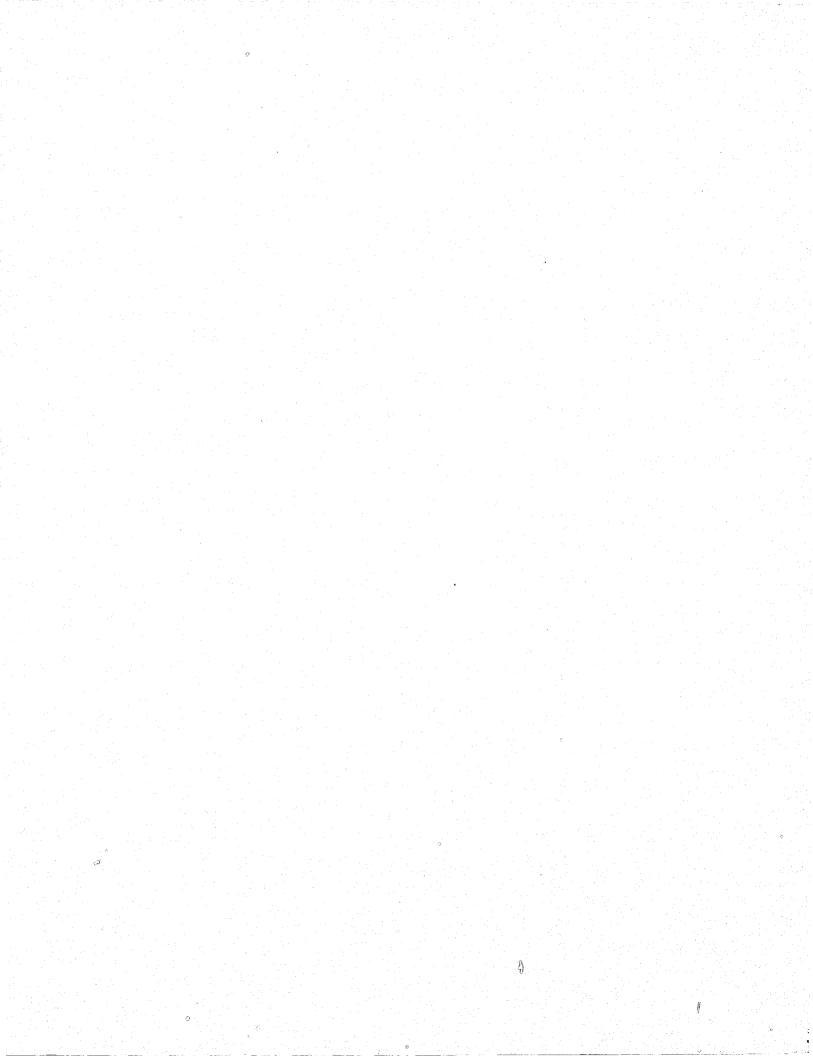
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