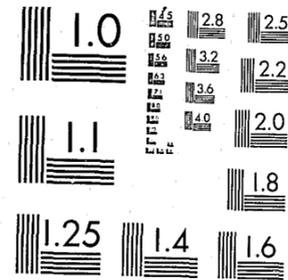


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U. S. Department of Justice
Office of Juvenile Justice and Delinquency Prevention
National Institute for Juvenile Justice and Delinquency Prevention



Analysis of National Crime Victimization Survey Data To Study Serious Delinquent Behavior

Monograph Five

Juvenile Criminal Behavior and Its Relation to Neighborhood Characteristics

77156



Monographs in this series include:

Juvenile Criminal Behavior in the United States:
Its Trends and Patterns

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and Victim Characteristics

Juvenile Criminal Behavior in Urban,
Suburban, and Rural Areas

Juvenile Criminal Behavior and Its Relation
to Economic Conditions

Juvenile Criminal Behavior and Its Relation to
Neighborhood Characteristics

**Analysis of National Crime
Victimization Survey Data
To Study Serious
Delinquent Behavior**

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and Its Relation to
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U.S. Department of Justice
National Institute of Justice

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**Analysis of National Crime Victimization Survey
Data To Study Serious Delinquent Behavior**

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Executive Summary

In this report 1973 to 1978 National Crime Survey victimization data are used in conjunction with neighborhood characteristics data from the Bureau of the Census to address three major questions regarding personal crimes inflicted upon and committed by juveniles (12 to 17 year olds), 18 to 20 year olds, and adults (21 and over). The personal crimes of rape, robbery, assault and personal larceny (purse snatch and pocket picking) are examined.

The first question focuses on the patterns of personal victimization across dimensions of selected neighborhood characteristics. For example, how do rates of victimization differ across categories of neighborhood economic status? Are rates of juvenile victimization higher in low economic status neighborhoods than in high economic status neighborhoods? The second question addressed is whether neighborhood characteristics are differentially related to rates of offending. For example, are juvenile rates of offending higher in neighborhoods characterized by high residential mobility than low residential mobility, as suggested by past research utilizing official data? Rates of offending can shed light on this question in that they standardize the number of offenses attributable to a particular group in a neighborhood by the number of persons (potential offenders) in that group residing in the neighborhood - something that is not done in the analysis of rates of victimization. The final question pertains to the relationship between characteristics of the victimization event and the neighborhood context in which they occur. For example, is gun use more prevalent in low economic status neighborhoods?

Our analysis of variation in rates of personal victimization across neighborhood characteristic dimensions showed that:

- (1) Neighborhood economic status has a negative relationship with victimization rates in urban areas.

The relationship was found to be stronger for adult victimization than juvenile victimization and for theft (robbery and personal larceny) rather than violent (rape and assault) victimization. In contrast, rural juveniles have higher rates of victimization in high economic status neighborhoods than in low economic status neighborhoods.

- (2) The relationship between neighborhood unemployment and victimization was moderate and positive for juvenile and adult victimization, but weak and inconsistent for 18 to 20 year old victimization. The relationship was stronger for theft than violent victimization, especially among blacks. Extent of urbanization differences were also revealed with victimization rates in urban areas being more strongly related to neighborhood unemployment than victimization rates in rural areas.
- (3) White victimization rates were found to be positively related to the percentage of blacks in neighborhoods. This relationship was found to be stronger for theft victimization than violent victimization. In contrast, black victimization rates were higher in predominately white neighborhoods or predominately black neighborhoods than in the intermediate percent black category.
- (4) Neighborhood residential mobility was found to have a strong positive relationship with victimization rates for all the population subgroups examined (age, race, and sex-specific). In most instances, rates of victimi-

zation in neighborhoods characterized by high residential mobility were twice as large as comparable rates in neighborhoods marked by low residential mobility.

- (5) Rates of personal victimization for all population subgroups examined (i.e., age, race and sex-specific) were higher in neighborhoods characterized by high structural density than low structural density. The relationship was stronger for adult victimization than juvenile victimization. Neighborhood structural density was also more strongly related to theft victimization than violent victimization and to rural victimization than urban victimization.

As to the second question regarding whether neighborhood characteristics are differentially related to rates of offending, we found that

- (1) Rates of theft offending were considerably higher in low economic status urban neighborhoods than in either medium or high economic status urban neighborhoods for juvenile, youthful and adult offenders. A similar but weaker pattern was evident for the violent offending of urban adults. Juvenile and adult offending were found to have a moderate negative relationship with neighborhood economic status in suburban areas but a weak and inconsistent relationship in rural areas.
- (2) Both theft and violent offending rates had a positive relationship with neighborhood unemployment for all offender age groups. This relationship was strongest for theft crimes, especially those committed by adult offenders.

- (3) A strong positive relationship was found between theft offending and the percent black in a neighborhood for juvenile, youthful, and adult offenders. Violent offending showed a weaker yet still overall positive relationship with percent black for all offender age groups.
- (4) White juvenile offending in both theft and violent crimes was positively related to neighborhood residential mobility. Black juvenile offending, in contrast, showed a positive relationship only for violent crimes. For adults, neighborhood residential mobility was positively related to both black and white offending in theft and violent crimes.
- (5) An overall strong positive relationship was found between rates of offending and neighborhood structural density, with the relationship being stronger for theft crimes than violent crimes. This pattern was evident for the offending behavior of all race and age specific population subgroups except for the violent offending of black 18 to 20 year olds.

An examination of whether certain characteristics of the victimization event such as weapon use and seriousness of the victimization event are related to neighborhood characteristics revealed that:

- (1) The use of weapons in robbery offending, particularly gun use, was more prevalent in neighborhoods with a higher percentage of blacks than in neighborhoods with a lower percentage of blacks. In addition, victimizations committed by youthful and adult offenders in high percent black neighborhoods were of a more serious nature than those in all-white neighborhoods.

- (2) In low economic status neighborhoods, juveniles and youthful offenders, but not adult offenders, were more likely to use weapons than their counterparts in high economic status neighborhoods.
- (3) Neighborhood residential mobility, structural density and unemployment were unrelated to both extent of weapon use and the seriousness of the victimization event.

I. Introduction

In the third monograph of this series (Laub and Hindelang, 1981) national victimization surveys were utilized to examine the similarities and differences in juvenile criminal behavior across urban, suburban, and rural areas. The analysis indicated that the involvement of juveniles in serious criminal offending (rape, robbery, assault, and personal larceny) varied considerably by extent of urbanization. For example, it was shown that juvenile rates of offending were generally higher in urban than in suburban areas, which in turn were higher than in rural areas.

The focus of this monograph shifts from the urban-rural dimension to an examination of the relationship between neighborhood characteristics and patterns of juvenile victimization and offending. As a government report issued by the National Institute for Juvenile Justice and Delinquency Prevention on the assessment of serious juvenile crime has recently argued:

Generally, the often discussed urban, suburban, rural, and city size rankings of crime are, and should be giving way to discussions of enclaves, neighborhoods, and contexts which increasingly appear to be the critical spatial 'correlates' of serious juvenile crime. Policy and control priorities must now break down the urban and suburban areas into segments and subareas of crime. Crime control and prevention efforts would learn much from the exercise, although it is apparent that it is this topic about which least information is available (Smith and Alexander, 1980:26-27).

The opportunity to address these important research and public policy issues is made possible through the availability of National Crime Survey (NCS) data. In this report NCS data in conjunction with neighborhood characteristics data from the Bureau of the Census are brought to bear on an understanding of the neighborhood contexts of criminal victimization.

Prior Ecological Research

Shaw and McKay (1931, 1942) were among the first American sociological researchers to explore systematically the ecological variations of delinquency rates within a major city. Operating within the theoretical confines of the human ecological framework of Park and Burgess (1916, 1925), Shaw and McKay demonstrated empirically that the highest rates in Chicago were located in deteriorated zones in transition next to the central city business and industrial district. These high crime areas were specifically characterized by low economic status, heterogeneity, and high rates of residential mobility. Later researchers have for the most part supported the findings of Shaw and McKay. For example, Lander (1954), Bordua (1958), Schmid (1960), and Chilton (1964) found that crime rates were negatively associated with the economic status of areas. In particular, Gordon (1967) reanalyzed the data sets employed by Lander, Bordua and Chilton and concluded that a socio-economic (SES) factor strongly emerges as an ecological correlate of official delinquency. Research has also supported the notion that crime is more prevalent in areas characterized by racial heterogeneity and residential mobility (see e.g., Lander, 1954; Willie and Gershonivitz, 1964). In addition to the ecological dimensions emphasized by Shaw and McKay, empirical relationships have been demonstrated between local crime rates and such factors as density, area unemployment, and family structure (see, e.g., Chilton, 1964; Beasley and Antunes, 1974; Danziger, 1976).

Despite the quantity and continuity of research spawned by Shaw and McKay, there has been a certain reluctance by criminologists to accept the validity of ecological correlates of crime. One reason for this is the fact that almost all ecological studies to date have utilized official police and court statistics. Besides general criticisms of official data (see, e.g., Black, 1970; Skogan, 1977; and Savitz, 1978) there are deficiencies in

police data particularly relevant to an ecological analysis. For example, it has been argued that less powerful groups are disproportionately selected for official processing from among those engaging in criminal behavior (e.g., Quinney, 1970; Chambliss and Seidman, 1971). If so, neighborhood or precinct differences in police deployment patterns could affect the arrest data between neighborhoods of varying demographic characteristics. Chambliss and Seidman make such an argument with respect to class differences in criminal behavior:

Typically the police limit their search for potential crimes to lower-class sections of the city . . . Crime will be prevalent where we look for it, not because of the inherent criminality of the areas surveyed, but merely because so many of the things that people do in their daily lives are against the law that any area inundated with policemen will show a correspondingly high rate (1971:330,31).

From this viewpoint, ecological correlations found in traditional studies between economic status and crime are a consequence of the selective patrol of lower socio-economic neighborhoods rather than of actual differences in the behavior of varying populations. Therefore, it is crucial to bring to bear on the ecology of crime question a data source that does not reflect criminal justice system biases that might exist.¹

Another limitation of extant ecological research relying on official data is a dearth of information regarding the elements of crime incidents. Dunn (1974:85) has argued that crime incident characteristics add important information to the analysis of the distribution of crimes in relation to environmental attributes. For instance, research has shown that the areal distribution of crimes can in part be explained as a function of the offense itself (e.g., Schmid, 1960, Scarr, 1972; and Dunn, 1974). Dunn, for example, demonstrated that the patterning of burglary across ecological areas

changed when different characteristics of the offense were considered (i.e., residential, day vs. night, items stolen). Moreover, recent analysis of National Crime Survey victimization data (McDermott and Hindelang, 1981) has shown that the elements of victimization within similar legal crime categories (e.g., weapon use and injury in robbery) vary considerably among different demographic subgroups of the population. The question may then be raised whether the elements of victimization also vary across neighborhood characteristic dimensions. The weight of the evidence seems to suggest, then, that there is a need for ecological research to take into account differences in the elements of the victimization experience such as weapon use and injury in order to more fully understand the neighborhood contexts of criminal victimization.

Perhaps the most potent force impeding the development of ecological research over the years has been the "ecological fallacy" (Robinson, 1950), in which the relations among individuals are inferred from information pertaining to aggregate data. The criticisms levied at ecological research arising from the ecological fallacy have tended to separate the study of individual level variables from the study of environmental level variables. By suggesting that inferences between levels were inappropriate, attention has focused on analysis at each level independent of the other. This distinction, however, is neither necessary nor desirable, for it diverts attention from an analysis of relationships between individual and ecological levels. As Scheuch (1969) has argued, the most fertile uses of ecological data are those in which it is possible to combine both aggregate and individual data. Indeed, as Kornhauser (1978) has commented after a recent review of delinquency research:

It is disheartening to find, therefore, that the influence of community contexts has been assumed rather than established. Few studies have been designed simultaneously to examine the effects of both contextual and individual variables. (1978:83)

Thus, to date we have little information on how aggregate neighborhood characteristics influence serious criminal behavior independent of the personal characteristics (e.g., age, race, and sex) of victims and offenders.

The Research Framework

Recently, the Law Enforcement Assistance Administration, in cooperation with the Bureau of the Census, has generated data about relatively serious crimes that are independent of the selection mechanisms of the criminal justice system. In this monograph these National Crime Survey (NCS) data for the years 1973-1978 are analyzed in conjunction with neighborhood characteristics data provided by the Bureau of the Census to explore the relationship between serious juvenile crime and the demographic/residential environment of the victim. The focus of the monograph is on juvenile victimization and the involvement of juveniles in serious offending (rape, robbery, aggravated and simple assault, and personal larceny) in relation to neighborhood characteristics. While an extensive review of the literature has indicated that a variety of social structural and physical characteristics of local areas are associated with area crime rates, the present analysis will focus on neighborhood economic status, unemployment, racial composition, residential mobility and structural density.²

The first question to be addressed in Section II will be the extent to which rates of personal victimization vary concomitantly with neighborhood characteristics. Rates of victimization will be analyzed for various subgroups of the population, as defined by the age, race, and sex of victim. Thus, this section will examine the relationship between neighborhood characteristics and rates of victimization controlling for individual demographic characteristics of the victim known to be associated with the likelihood of victimization. For example, are rates of victimization higher in low economic status neighborhoods

than in high economic status neighborhoods as suggested by Shaw and McKay, taking into account individual characteristics such as age, race, and sex of victim?

Section III of this monograph will focus on rates of offending for juveniles (12 to 17), youthful offenders (18 to 20), and adults (21 and over) in relation to neighborhood characteristics. The general question to be addressed is whether structural characteristics of neighborhoods are differentially related to the offending behavior of population subgroups. For example, are juvenile rates of offending higher in neighborhoods characterized by heterogeneity and mobility, as suggested by past ecological research utilizing official data (e.g., Shaw and McKay, 1942)? Rates of offending can shed light on this question in that they standardize the number of offenses attributable to a particular group in a neighborhood by the number of persons (potential offenders) in that subgroup residing in the neighborhood -- something that is not done in the analysis of rates of victimization.

Section IV of this report will examine the relationship between characteristics of the victimization event and the neighborhood contexts in which they occur. The major focus will be on the extent to which weapon use by juvenile, youthful, and adult offenders varies according to selected neighborhood characteristics. For example, is gun use more prevalent in low economic status neighborhoods? We will also examine whether the seriousness of the victimization event (i.e., injury and loss) varies across neighborhood characteristic dimensions. Before turning to the analysis, however, a brief description of the NCS data and its limitations regarding a neighborhood characteristics study is necessary.

Description of the Data

The data to be analyzed in this report are from the NCS national sample, collected by the United States Bureau of the Census, in cooperation with the Law Enforcement Assistance Administration. In the national survey, probability

samples of both housing units and businesses were selected on the basis of a stratified, multistage, cluster design.³ The data used in this monograph cover the period from 1973-1978.

The total sample size interviewed annually for the national surveys is approximately 60,000 households containing about 136,000 individuals. The total interviewed sample is composed of six independently selected subsamples of about 10,000 households with 22,000 individuals. Each subsample is interviewed in successive months about victimizations suffered in the preceding six months; each subsample is interviewed twice per year. For example, in January 22,000 individuals (in 10,000 households) are interviewed. In the following month -- and in each of the next four succeeding months -- an independent probability sample of the same size is interviewed. In July, the housing units and business units originally interviewed in January are revisited and interviews are repeated; likewise, the original February sample units are revisited in August, the March units in September, etc. Each time they are interviewed in the national survey, respondents are asked about victimizations they may have suffered during the 6 months preceding the month of interview.

Thus, the national survey is conducted using a panel design; the panel consists of addresses. Interviewers return to the same housing unit every 6 months. If the family contacted during the last interview cycle has moved, the new occupants are interviewed. If the unit no longer exists or is condemned, it is dropped from the sample, but new units are added to the sample periodically. This is accomplished by a continuing sample of new housing construction permits. No attempt is made to trace families that have moved.⁴ Generally speaking, housing units in the panel are visited a maximum of seven times, after which they are rotated out of the panel

and replaced by a new, independent probability sample; maximum time in the sample for any housing unit, then is 3 years.

The data to be reported represent estimates of crimes occurring in the United States, based on weighted sample data.⁵ It is possible to make these estimates because a probability sample of respondents was surveyed. The interview completion rate in the national sample is about 95 percent or more of those selected to be interviewed in any given period, and hence population estimates are relatively unbiased by non-response.

This report is concerned with the personal crimes of rape, robbery, assault, and personal larceny. Although the survey also collects data on the commercial crimes of burglary and robbery these crimes will not be included here because there is no neighborhood characteristic information available for businesses. Our analysis requires reports from victims regarding what transpired during the event -- particularly regarding offender characteristics such as the perceived age of the offender -- and hence only those crimes generally involving contact between victims and offenders will yield this information. The details about what happened during the victimization event are gathered by means of personal interviews with the victims themselves.⁶

Depending on whether there was one or more than one offender reported by the victim to have been involved in the incident, victims are asked one of two series of questions relating to offender characteristics (see NCS household interview schedule in Appendix A). If a lone offender victimized the respondent, that offender's characteristics are simply recorded. If more than one offender was involved, it is possible to have offenders of different ages, sexes, and races. Because offender characteristics will be used repeatedly

throughout the monograph, Appendix C explains in detail research on the ability of victims to perceive accurately characteristics of the offender. In general, the tables and figures to be shown in the monograph in which both lone and multiple-offender incidents are included will use the age of the oldest multiple offender. Preliminary analysis shows that more often than not multiple offenders fall into the same age group; for this reason, whether the youngest or the oldest multiple offender is used has little impact on the results (see Appendix C).

On the basis of the details of precisely what transpired -- whether force or threat of force was used by the offender, whether some theft was attempted or completed, whether serious injury was sustained, etc. -- crimes are classified according to definitions used in the Uniform Crime Reports (FBI, 1978). The elements constituting these definitions are shown in Appendix E for each of the major types of crime examined here.

Neighborhood Characteristic Data

Within the NCS data there are a set of variables described as neighborhood characteristics. These data were developed by the Bureau of the Census from a 15 percent sample of the 1970 Census (Shenk and McInerney, 1978). Fifty five variables containing information regarding the demographic, social and economic characteristics of neighborhoods of sampled households within the National Crime Survey are available. The Bureau of the Census has presented these variables in ratio form, with a range from .00 to .99. For example, one variable is the ratio of families with less than \$5,000 family income to total families in the neighborhood. A value of .50 for this variable would indicate that 50 percent of the families in the surveyed neighborhood have family incomes of less than \$5,000.

The definition of neighborhood developed by the Census Bureau is as follows:

To preserve confidentiality, neighborhoods are not census tracts, minor civil divisions or other units for which census data are published. Rather, neighborhoods are usually contiguous, computer aggregated enumeration districts (ED's) or block groups with a population minimum of 4,000 (Shenk and McInerney, 1978:22).⁷

A study of these neighborhoods has indicated that the aggregation procedure utilized by the Census Bureau resulted in neighborhoods being relatively compact, contiguous, and homogeneous areas approximately the size of a census tract (U.S. Bureau of the Census, undated). These neighborhood characteristics were matched on a household bases for the data years 1973 to 1978. Each household record in the sample thus contains neighborhood characteristic information about the area in which the household was sampled. Because neighborhood characteristics were derived from the 1970 census, all housing units constructed since then (about 9 percent of the sample) do not have neighborhood characteristic data.

The NCS neighborhood characteristics data allow the researcher the opportunity to categorize housing units on the criterion of similarity of ratio values for a particular neighborhood characteristic. Accordingly, the data set used in this report for analyzing the relationship between crime and neighborhood characteristics is formed by combining households with similar ratio values.⁸ For example, a NCS household located in a Los Angeles neighborhood homogeneous on race (e.g., 0 percent black) will be aggregated together with a household, say, in a New York neighborhood homogeneous on race (i.e., also 0 percent black). The resulting variable (percent black) will represent neighborhoods all over the country aggregated together into categories representing an ordered classification of racial composition.

Thus, neighborhoods as defined above are conceptualized as areas marked by their similarity according to neighborhood characteristic dimensions, rather than as clearly identifiable geographic entities.⁹

Methodological Concerns

The NCS-neighborhood characteristics data provide the researcher with an abundance of information that allows an innovative analysis capable of overcoming many of the shortcomings of previous research. However, the NCS data as a source of information on the ecology of crime has its own shortcomings as well. McInerney (1978) has studied the feasibility of using neighborhood characteristics in conjunction with the NCS data and had raised several questions on the methodological adequacy of a neighborhood analysis (see also Shenk and McInerney, 1979).

The first and potentially most damaging limitation of the NCS data that McInerney points out is the fact that neighborhood characteristics are matched with the location of the victim's household, not the place where crimes might have occurred. Since the aim of this report is to examine the relationship between neighborhood characteristics and criminal victimization it is important to ascertain the extent to which the location of the victimization event and the offender's residence coincide with the victim's neighborhood. In order to shed light on this issue, a brief literature review is warranted.

While McInerney (1978:6) has argued that NCS personal crimes can occur almost anywhere, much ecological research has in fact shown that crime represents a highly localized phenomenon. As Sutherland and Cressey state in their text Criminology:

Generally, the places at which crimes are committed are close to the residences of the criminals. This is especially characteristic of crimes against the person, for the offender and the victim are usually of the same race, and same economic class, and also the same neighborhood. (1974:181, emphasis added)

Sutherland and Cressey are not alone in their evaluation of this aspect of crime. Baldwin and Bottoms, conducting original research, concluded that "Criminality, in general, and juvenile delinquency in particular, is often very much of a local nature" (1976:98). Many studies have supported Baldwin and Bottom's finding that juveniles travel less than adults to commit crimes (Chappell, 1965; Suttles, 1968; Turner, 1969). For example, Suttles (1968) found that 65 percent of all offenses committed by juveniles occurred within a 1/2 square mile area of their homes. Turner (1969) found that 75 percent of all juvenile offenses occurred within one mile of the delinquent's home. Even for adults, when offenders do travel for any type of crime, they usually travel short distances (Normandeau, 1968; Amir, 1971; Capone and Nichols, 1976; Frisbie et al., 1977; Phillips, 1980). For instance, White (1932) found that the mean distance travelled for assault was less than one mile. Eralason (1946) discovered that 87 percent of all sex offenders committed their offenses within their own neighborhoods.

Moreover, there is reason to believe that the residence of the victim, the residence of the offender, and the victimization event all take place in the same local geographical area (Amir, 1971; MacDonald, 1971; Reiss, 1967; Mulvihill et al., 1969; Normandeau, 1968, Chappell and Singer, 1973; Dunn, 1974; Pope, 1975). In particular, Amir (1971:91) notes in his Philadelphia rape study that in "82 percent of known cases, offender and victim live in the same neighborhood or vicinity, while in 68 percent a neighborhood triangle occurred, that is, offenders lived in the vicinity of the victims and offense." Taken together, the available evidence indicates that a sizeable proportion of all crime, especially juvenile crime, is "ecologically bound" - that is, crimes occur near the residences of both the victim and offender (see also Crook, 1934; Radzinowicz, 1957; Pokorny, 1965; and Curtis, 1974).

Although the above literature review supports the notion that the majority of crime is "ecologically bound," it is not possible with the NCS data to determine empirically the exact location of all personal victimizations. By analyzing the percent distribution of personal victimizations by place of occurrence (item 112 on the NCS questionnaire), McInerney demonstrates that only about one-fifth of all personal crimes of violence occurred "at home" (in own dwelling) or "near home" (e.g., garage, yard, etc.) in 1973. Consequently, he argues that 80 percent of all personal crimes of violence for that year are not amenable to analysis because the neighborhood in which the crimes occurred is not known. However, the body of literature cited above suggests that a significant proportion of this 80 percent constitutes intra-neighborhood victimizations. Indeed, the NCS place of occurrence category "on street, in park, field, playground, schoolyard, etc.," representing about 45 percent of all personal crimes, almost certainly includes many victimizations that took place in the victim's neighborhood. Hence, it does not appear justified to infer, as does McInerney, that "only 'at home' or 'near home' personal incidents occurred within the respondents' own neighborhood" (1978:6, emphasis added). The "at or near home" place of occurrence category is in effect measuring only those victimizations that took place on the victim's property (i.e., yard, garage, house). The problem, then, is that the NCS instrument does not separate victimizations occurring in the victim's neighborhood but not on the victim's property from those victimizations occurring elsewhere.¹⁰

Although the NCS data do not allow for an exact appraisal of the percentage of the total personal victimizations that took place in the victim's neighborhood, they nevertheless allow the researcher the opportunity to compare and contrast total personal victimizations with that subset of victimizations which explicitly

occurred in the victim's neighborhood (i.e., at home). If most victimizations take place within or very near the victim's neighborhood, and neighborhood characteristics are in fact associated with the likelihood of victimization independent of the personal characteristics of individuals, then we should expect a strong parallel between "at or near home" victimization rates and total personal victimization rates. Accordingly, in a preliminary data analysis crime-specific rates of victimization based on all personal victimizations were compared with crime-specific rates of victimization based solely on "at or near home" incidents. The results showed that to a large degree the two sets of rates exhibited very consistent patterns across neighborhood characteristic dimensions, thus suggesting that the relationships found between neighborhood characteristics and total personal victimization rates are not spurious due to possible misclassification.¹¹

In addition, even for those victimizations that took place outside the neighborhood boundaries defined by the Census Bureau, it seems reasonable to assume on the basis of the literature cited above that a large percentage occurred in adjacent neighborhoods. Given the highly segregated nature of American society, it is likely that the majority of neighborhoods adjacent to one's own neighborhood are very similar with respect to the neighborhood characteristics studied in this report (e.g., economic status, structural density, and racial composition). Therefore, an analysis of the relationship between neighborhood characteristics and total personal victimizations seems justified.

In sum, the procedure to be followed throughout the monograph will be to present and discuss rates of victimization and offending based on all personal victimizations. In turn, these rates will be compared with rates based solely on "at or near home" victimizations. In the few cases where discrepancies arise, they will be noted and explanations offered as to

their origin. Furthermore, for illustrative purposes, Appendix D presents rates of victimization and offending based exclusively on "at or near home" incidents for each neighborhood characteristic, controlling for the age of victim and age of offender, the individual-level variables of greatest concern in this report.

One final methodological concern to be addressed in this section¹² is the appropriateness of matching NCS data from 1973 to 1978 to neighborhood characteristics derived from the 1970 census. One might argue that neighborhoods have changed dramatically since 1970, thus calling into question the reliability of neighborhood characteristic identifiers when used with mid-1970's crime data. While this is a valid concern, it is important to remember that the neighborhood characteristic variables have been trichotomized (see note 8) to include as broad a range as possible. For example, one of the economic status variables is the percent of families with less than \$5,000 family income. This variable has been recoded into an ordered classification of neighborhoods high (0-10 percent), medium (11-26 percent), and low (27-99 percent) in economic status. Given this rather broad classification scheme,¹³ it is not necessary to assume that all neighborhoods remained exactly the same from 1970 to 1978 in terms of the characteristics studied. The percentage of families making less than \$5,000 could increase or decrease over time and yet still fall within the range of the constructed categories. Moreover, what is of importance is not the absolute level of income but rather the relative rank ordering of neighborhoods in terms of economic status. In other words, given changes in absolute levels of income, it is still reasonable to assume that the rank ordering of most neighborhoods in 1970 is the same as in the years 1973-1978. Even if incomes rose steadily throughout

the 1970's, a low economic status neighborhood in 1970 would in all likelihood still be a low economic status neighborhood in 1975, relative to medium and high economic status neighborhoods. In this instance, what is important is the relationship between relative economic status and criminal victimization, not the relationship between some absolute level of income (which is subject to constant change) and victimization.

In an effort to further explore whether the analysis should be confined to the early years of available NCS data (1973-1974) or be extended to the later years (up to 1978), rates of victimization were generated for selected neighborhood characteristics for three time periods: 1973-1974; 1973-1976; and 1977-1978. Patterns of victimization in relation to neighborhood characteristics were then compared for each time period. In brief, rates of victimization exhibited similar patterns across neighborhood characteristic dimensions from 1973-1978, thus suggesting that the form of the relationship between neighborhood characteristics and victimization did not appreciably change over time. Furthermore, additional analysis revealed that when crime-specific rates of victimization for 1973-1974 were regressed on comparable rates for 1975-1976 and 1977-1978, the resulting correlations were extremely high (.995 and .986, respectively). These results indicate that extending analysis to all the years in which NCS data is available (1973-1978) is justified.¹⁴

In conclusion, while certain methodological issues (i.e., place of occurrence) may still remain somewhat problematic, it is felt that the benefits to be gained from a neighborhood characteristics analysis far outweigh the costs. Therefore, our attention now shifts to an examination of the relationship between neighborhood characteristics and juvenile criminal victimization and offending. The next section focuses on patterns

of juvenile victimization across selected neighborhood characteristic dimensions. The following sections will center on the neighborhood contexts of juvenile offending and the elements of the victimization event.

II. Rates of Personal Victimization

To date, ecological studies of crime and delinquency have not provided information on how rates of personal victimization vary across neighborhood characteristic dimensions. While past research utilizing victimization survey data has shown that urban residents are more likely to be victims of crime than rural residents (Gibbs, 1979, and Laub, 1980), an important question in the ecological realm still remains unaddressed: "Are rates of personal victimization related to the socio-demographic characteristics of the neighborhood in which one resides?" Since it is already known that certain groups of people have higher rates of victimization than other groups; for example, younger persons than older persons, males than females, and blacks than whites (Hindelang, 1976); the above question is most meaningfully addressed by ascertaining whether neighborhood characteristics are related to personal victimization independent of the personal attributes of victims. This will be accomplished by presenting rates of personal victimization across neighborhood characteristic dimensions holding constant major individual-level correlates of victimization such as age, race, and sex.

The rates of victimization reported in this section are computed from the 1973-1978 national samples of the NCS. These data are used to estimate both the population base 12 years of age and older (persons under 12 are not eligible to be interviewed) and the number of victimizations that occurred annually in the United States. The rates reported here are the estimated annual rates computed from six years of data (1973-

1978). The rate of victimization is computed by dividing the number of victimizations by the number of persons in the population of interest. For example, to obtain a rate of total personal victimization for whites aged 21 or over living in low economic status areas, one takes the number of victimizations inflicted upon members of that population subgroup and divides that by the total number of whites aged 21 or over living in low economic status areas. This number is then multiplied by 100,000 to obtain a rate of victimization per 100,000 persons. All of the rates of victimization presented herein are rates per 100,000 persons in the population subgroup of interest.

Neighborhood Economic Status

As noted in the introduction, past ecological research has consistently found a strong negative relationship between official crime and delinquency rates and the economic status of local areas (see e.g., Gordon, 1967). The question then arises as to whether personal victimization rates are also higher in neighborhoods characterized by low economic status. The percent of total families in a neighborhood with less than \$5,000 family income will be used to indicate neighborhood economic status.¹⁵

Table 1 displays race, age and crime-specific rates of personal victimization across neighborhoods with varying economic status.¹⁶ Focusing first on rates of total personal victimization, one notices that neighborhood economic status has a slight negative relationship with theft victimization and no appreciable relationship with violent victimization. For example, neighborhoods characterized by low economic status (those wherein 27 or more percent of all families have less than \$5,000 family income) have a rate of theft victimization of 1,081 which is approximately 35 percent higher than the rate of 799 found in relatively high economic status neighborhoods (those wherein no more than 10 percent of all families have less than

Table 1 Estimated annual rates of victimization in personal crimes (per 100,000 persons in each population subgroup), by race and age of victim, type of crime^a and neighborhood economic status, NCS national data, 1973-1978 aggregate

Race and age of victim and type of crime	Economic Status		
	(Percent of total families with less than \$5,000 family income)		
	Low (27-99)	Medium (11-26)	High (0-10)
White:			
12 to 17	(4,178,351) ^b	(8,453,059)	(6,046,138)
Theft	892	1,312	1,186
Violent	3,871	4,898	4,731
18 to 20	(2,195,549)	(4,506,641)	(2,610,919)
Theft	1,356	1,460	1,507
Violent	5,695	6,654	6,216
21 or older	(24,914,964)	(50,470,804)	(30,686,492)
Theft	751	758	617
Violent	1,854	2,000	1,694
White total	(31,288,864)	(63,430,504)	(39,343,549)
Theft	811	881	762
Violent	2,389	2,714	2,454
Black:			
12 to 17	(1,783,878)	(1,195,867)	(258,714)
Theft	1,844	2,608	2,346
Violent	3,804	5,511	5,961
18 to 20	(803,736)	(528,635)	(109,151)
Theft	2,018	2,586	3,603
Violent	4,934	5,082	5,977
21 or older	(6,791,712)	(4,603,598)	(1,100,668)
Theft	2,023	2,016	1,503
Violent	2,131	2,356	2,336
Black total	(9,379,326)	(6,328,100)	(1,468,533)
Theft	1,986	2,171	1,805
Violent	2,685	3,177	3,241
Total:	(40,668,190)	(69,758,604)	(40,812,082)
Theft	1,081	998	799
Violent	2,457	2,756	2,482

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

\$5,000 family income). In contrast, rates of violent victimization do not vary in a consistent manner with neighborhood economic status.

When one focuses on race and age-specific rates of victimization it can be seen that for both black and white juveniles (12 to 17 years old), rates of theft victimization are highest in medium economic status neighborhoods (i.e., 11 to 26 percent of all families with less than \$5,000 family income). Black juvenile rates of violent victimization surprisingly show a monotonic increase as neighborhood economic status increases. This unexpected positive relationship holds for the violent and theft victimization of black 18 to 20 year olds and the theft victimization of white 18 to 20 year olds. For white adults (persons 21 years old or older), rates of theft victimization are highest in medium economic status neighborhoods.

The relatively weak and inconsistent relationship between neighborhood economic status and personal victimization noted above stands in contrast to the strong negative relationship consistently found between area economic status and crime rates in ecological studies utilizing official data. Possible explanations for this may lie in the nature of the differing data bases. For example, NCS data are generated independently of the criminal justice system whereas official data, by definition, are not. Perhaps the argument that ecological correlations found between area characteristics and crime are largely accounted for by selective enforcement of the law is valid (e.g., Chambliss and Seidman, 1971). Another possible explanation may be that because most prior ecological studies of crime have been city based and the present study utilizes a national data base, findings of the two are not comparable. That is, it might not be appropriate to compare urban based findings with findings derived from aggregating neighborhoods across the nation that are found in both urban and rural areas. If the nature of

the relationship between neighborhood economic status and victimization is different in urban areas than rural areas, then aggregating the data from both types of areas may mask the true relationship.

The NCS data set contains a variable which measures extent of urbanization according to definitions put forth by the Office of Management and Budget (Statistical Policy Division, 1975). These definitions classify areas into three types; 1) central cities within Standard Metropolitan Statistical Areas (SMSA's), 2) the balance of SMSA's (areas within SMSA's but outside central cities) and 3) non-metropolitan areas not situated in SMSA's. In the present analysis SMSA central cities will be designated as urban areas, the balance of SMSA's as suburban areas and areas outside SMSA's as rural areas (see also Laub and Hindelang, 1981).¹⁷ An examination of the relationship between neighborhood economic status and personal victimization while holding constant extent of urbanization may help to shed light on the degree of consistency between findings of past ecological research and the present study.

Table 2 presents age and crime-specific rates of personal victimization across levels of neighborhood economic status, within urban, suburban and rural areas. Examining first total rates of personal victimization, one immediately notes the strong negative relationship exhibited between urban rates of personal victimization and neighborhood economic status and the weak, somewhat positive relationship between rural rates of victimization and neighborhood economic status. For instance, the rate of theft victimization for urban neighborhoods characterized by low economic status (2,665) is 57 percent higher than the rate for medium economic status neighborhoods (1,701), and almost 150 percent higher than the rate in high economic status neighborhoods (1,088). Differences between urban rates of violent victimization across neighborhood economic status are smaller but exhibit the same pattern.

Table 2 Estimated annual rates of victimization in personal crimes (per 100,000 persons in each population subgroup), by age of victim, extent of urbanization, type of crime,^a and neighborhood economic status, NCS national data, 1973-1978 aggregate

Age of victim, extent of urbanization, and type of crime	Economic Status		
	(Percent of total families with less than \$5,000 family income)		
	Low (27-99)	Medium (11-26)	High (0-10)
12 to 17:			
SMSA Central Cities	(1,684,208) ^b	(2,884,244)	(1,401,189)
Theft	2,650	2,601	1,806
Violent	5,899	6,478	5,862
Balance of SMSA	(663,613)	(3,579,145)	(4,543,019)
Theft	1,099	1,336	1,125
Violent	5,279	5,316	4,536
Areas Outside of SMSA	(3,657,983)	(3,331,543)	(446,208)
Theft	505	602	452
Violent	2,678	3,271	3,567
18 to 20:			
SMSA Central Cities	(987,977)	(1,650,441)	(672,731)
Theft	2,971	2,192	1,896
Violent	6,862	7,222	6,740
Balance of SMSA	(399,611)	(1,697,358)	(1,914,155)
Theft	1,225	1,573	1,567
Violent	6,529	6,349	6,062
Areas Outside of SMSA	(1,641,751)	(1,768,111)	(172,999)
Theft	733	1,040	904
Violent	4,449	5,744	5,386
21 or older:			
SMSA Central Cities	(8,929,505)	(19,352,276)	(8,707,118)
Theft	2,634	1,526	911
Violent	3,185	2,483	1,856
Balance of SMSA	(3,855,735)	(18,994,902)	(21,432,305)
Theft	989	710	569
Violent	2,290	2,082	1,651
Areas Outside of SMSA	(19,231,335)	(17,501,182)	(2,089,002)
Theft	296	311	419
Violent	1,268	1,483	1,683
Total:			
SMSA Central Cities	(11,601,690)	(23,886,961)	(10,781,038)
Theft	2,665	1,701	1,088
Violent	3,890	3,292	2,681
Balance of SMSA	(4,918,959)	(24,271,405)	(27,889,479)
Theft	1,023	862	728
Violent	3,037	2,857	2,423
Areas Outside of SMSA	(24,531,069)	(22,600,836)	(2,708,209)
Theft	356	410	455
Violent	1,574	2,079	2,229

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

In contrast, rates of both theft and violent victimization in rural neighborhoods increase as the economic status of neighborhoods increases (28 and 42 percent, respectively).

Table 2 also indicates that there are age differences in the strength of the relationship between neighborhood economic status and personal victimization within categories of the urban-rural dimension. For example, rates of theft victimization for juveniles living in urban areas decrease from 2,650 to 1,806 as neighborhood economic status increases, the total decrease being about 32 percent. In contrast, rates of theft victimization for adults living in urban areas decrease 65 percent (2,634 to 911) as neighborhood economic status increases. Focusing on rural rates of personal victimization, neighborhood economic status is observed to be inconsistently related to the violent and theft victimization of both juveniles and 18 to 20 year olds. For adults, a weak positive relationship is exhibited between neighborhood economic status and both theft and violent rates of personal victimization. Generally, adult rates of both theft and violent victimization are more strongly related to neighborhood economic status than the rates of victimization for either juveniles or 18 to 20 year olds, regardless of extent of urbanization.¹⁸

In an effort to determine whether these results are due, in part, to the misclassification problem discussed earlier in this report, rates of victimization based solely on "at or near home" incidents were analyzed (see Appendix D, Table D1).¹⁹ To a large degree, these rates suggest that the findings derived from rates of victimization based on all incidents are not spurious due to misclassification. In urban and suburban areas, rates of victimization based on all incidents follow the same general pattern as rates based solely on "at or near home" incidents. For every age group in urban areas, "at or near home" rates of victimization decrease as neighborhood

economic status increases. Similar to suburban rates of victimization based on all incidents, "at or near home" suburban rates for juveniles and 18 to 20 year olds vary inconsistently with neighborhood economic status and decrease steadily for adults as economic status increases. For rural juveniles, total rates of personal victimization based on all victimizations increase steadily with neighborhood economic status as do rates based solely on "at or near home" incidents. However, there is some discrepancy evidenced in that the adult "at or near home" victimization rate in rural areas is highest in the medium economic status neighborhood, whereas adult rates shown in Table 2 for both theft and violent victimizations in rural areas is highest in the high economic status category. Therefore, conclusions regarding the relationship between adult personal victimization and economic status in rural areas must be tentative. However, given the strong parallels that are found, it is safe to conclude that in urban areas, low economic status neighborhoods exhibit higher rates of personal victimization than high economic status neighborhoods. This relationship is stronger for the victimization of urban adults than either urban juveniles or urban 18 to 20 year olds. In contrast, rural juveniles living in low economic status neighborhoods have lower rates of personal victimization than rural juveniles living in higher economic status neighborhoods.

In sum, the inconsistent patterns found in Table 1 among rates of personal victimization and neighborhood economic status were, in large part, eliminated by controlling for extent of urbanization. To the extent that victimization rates are a valid indicator of levels of crime, the above findings are consistent with past urban based ecological research (e.g., Shaw and McKay, 1942). That is, low economic status neighborhoods in urban areas have higher crime levels than high economic

status urban neighborhoods. The finding that juvenile personal victimization is positively related to neighborhood economic status in rural areas and that there are discrepancies between adult "at or near home" and total rates of personal victimization in rural areas indicates that further examination of the neighborhood contexts of rural victimization is warranted. Overall, these victimization survey data do suggest, in contrast to the assertion that traditional ecological correlates of crime (e.g., economic status) are largely the result of selective law enforcement, that there are indeed differences in criminal activity across ecological areas.²⁰

Neighborhood Unemployment

A great deal of contemporary research in the criminological area involves studying the relationship between unemployment and crime (Orsagh, 1980; Danser and Laub, 1981). While area unemployment is not conceptually as strong an indicator of economic status as the percentage of total families in a neighborhood with less than \$5,000 family income, researchers and theorists (Fleischer, 1963; Gibbs, 1966; Danziger, 1976) have argued that unemployment is an important variable that measures the economic opportunities present in local communities. Therefore, in an attempt to further investigate the relationship between neighborhood economic status and personal victimization, Table 3 presents race, age, and crime-specific rates of victimization across categories of neighborhood unemployment.

The marginal totals in Table 3 clearly indicate that rates of both theft and violent victimization are substantially higher in neighborhoods characterized by relatively high unemployment rates than neighborhoods having lower unemployment rates. The relationship between neighborhood unemployment is somewhat stronger for theft victimization than for violent

Table 3 Estimated annual rates of victimization in personal crimes (per 100,000 persons in each population subgroup), by race and age of victim, type of crime,^a and neighborhood unemployment, NCS national data, 1973-1978 aggregate

Race and age of victim and type of crime	Unemployment		
	(Percent of total civilian labor force 16 years old and over which is unemployed)		
	Low (0-2)	Medium (3-5)	High (6-99)
White:			
12 to 17	(4,346,845) ^b	(9,754,915)	(4,575,786)
Theft	1,009	1,133	1,434
Violent	4,096	4,460	5,453
18 to 20	(2,035,039)	(4,916,346)	(2,361,722)
Theft	1,483	1,259	1,815
Violent	6,050	5,945	7,277
21 or older	(24,022,120)	(56,378,391)	(25,671,749)
Theft	574	688	909
Violent	1,546	1,803	2,352
White total	(30,404,004)	(71,049,652)	(32,609,257)
Theft	695	788	1,047
Violent	2,202	2,606	3,138
Black:			
12 to 17	(315,494)	(1,392,933)	(1,530,031)
Theft	1,302	2,031	2,467
Violent	3,664	4,279	5,101
18 to 20	(145,586)	(654,293)	(641,644)
Theft	1,957	2,271	2,512
Violent	7,019	4,644	5,056
21 or older	(1,342,432)	(5,606,219)	(5,547,327)
Theft	1,249	1,740	2,388
Violent	1,746	2,129	2,461
Black total	(1,803,512)	(7,653,445)	(7,719,002)
Theft	1,312	1,836	2,412
Violent	2,498	2,732	3,197
Total:	(32,207,516)	(78,703,097)	(40,328,259)
Theft	729	890	1,308
Violent	2,218	2,618	3,149

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

victimization. For example, rates of theft victimization increase a total of 80 percent as neighborhood unemployment increases (from 729 to 890 to 1,308) whereas comparable rates of violent victimization increase approximately 40 percent (from 2,218 to 2,618 to 3,149).

Focusing next on race and age-specific rates of victimization it is evident that for juveniles and adults of each racial group, victimization rates increase monotonically as neighborhood unemployment levels increase. The stronger relationship of neighborhood unemployment to theft victimization than violent victimization is more pronounced for blacks than whites. For black juveniles and adults, theft victimization rates in high unemployment areas are almost double the rates of low unemployment areas, whereas comparable rates for violent victimization are only about 40 percent greater in high versus low unemployment areas. For whites, the percentage differences are less substantial. For example white juvenile rates of theft victimization increase from 1,009 to 1,133 to 1,434, a total increase of 42 percent as neighborhood unemployment increases, whereas their comparable rates of violent victimization increase slightly less (33 percent) from 4,096 to 4,460 to 5,453 as neighborhood unemployment increases. In contrast to these consistent increases, there is relatively little pattern among rates of victimization for 18 to 20 year olds. Only for the theft victimization of blacks 18 to 20 years is there a monotonic, albeit small increase in rates as neighborhood unemployment increases.²¹

Since the nature of the relationship between neighborhood economic status and victimization was seen to vary somewhat between urban and rural areas, it is conceivable that this is true for neighborhood unemployment at well. Accordingly, the relationship between neighborhood

unemployment and personal victimization was examined controlling for extent of urbanization. It was found that although general patterns remained for every age group, neighborhood unemployment was more strongly related to the victimization of residents in urban rather than rural areas. For instance, the urban juvenile rate of total victimization was found to be 40 percent greater in high unemployment areas than in low unemployment areas (10,041 versus 7,199); whereas comparable rural juvenile rates of total victimization were found to be only 15 percent higher (3,876 versus 3,358, data not shown in tabular form).

The "at or near home" rates of victimization presented in Table D2 indicate that the above findings are not spurious due to misclassification. Further analysis controlling for race of victim and extent of urbanization separately lead to the same conclusion (data not shown in tabular form). In every instance except for black 18 to 20 year olds,²² "at or near home" rates of victimization parallel closely rates of victimization based on all incidents. It thus seems safe to conclude that, generally, neighborhood unemployment has a moderate positive relationship with personal rates of victimization. This finding is consistent with past ecological research which has found a positive relationship between unemployment and official crime rates (e.g., Danziger, 1976; Kvalseth, 1977).

Neighborhood Racial Composition

The major ecological studies conducted in the United States have consistently introduced a measure of racial composition into analysis. In the present study, racial composition is measured by the percentage of the neighborhood population which is black. Generally, intra-urban studies have found percent black to have a strong positive relationship with crimes rates based

on official data (e.g., Schmid, 1960; Schuessler, 1962; Beasley and Antunes, 1974).

Table 4 displays race, age and crime-specific rates of victimization across neighborhoods with varying racial composition. Focusing first on the marginal totals, it is immediately apparent that for both theft and violent victimizations, rates of personal victimization generally increase as the percent black within a neighborhood increases, with the relationship being stronger for theft victimization. For example, rates of theft victimization increase steadily from 634 to 931 to 1,275 to 2,948, as percent black increases, the increase totalling over 350 percent. In contrast, rates of violent victimization increase from 2,289 to 2,766 before decreasing slightly to 2,679 and then, once again, increase to 3,944 as percent black increases (total increase being approximately 70 percent). Thus, the racial composition of a neighborhood is clearly more strongly related to theft victimization than violent victimization. In this regard, it is also interesting to note that the ratio between rates of theft victimization and violent victimization in predominately black neighborhoods (.75) is much greater than the comparable ratio in all white neighborhoods (.28). This finding indicates that theft victimizations constitute a greater proportion of total victimizations reported to NCS interviewers in predominately black neighborhoods than in all white neighborhoods.

Turning to race and age-specific rates of personal victimization, it is observed that black rates of victimization vary with differences in the racial composition of a neighborhood in quite a different manner than white rates of victimization. Since whites comprise almost 90 percent of the

Table 4 Estimated annual rates of victimization in personal crimes (per 100,000 persons in each population subgroup), by race and age of victim, type of crime,^a and neighborhood racial composition, NCS national data, 1973-1978 aggregate

Race and age of victim and type of crime	Racial Composition (Percent Black)			
	0	1-5	6-59	60-100
White:				
12 to 17	(10,206,562) ^b	(5,232,172)	(3,065,796)	(123,016)
Theft	980	1,219	2,482	8,179
Violent	4,104	4,611	5,127	26,184
18 to 20	(4,636,303)	(2,997,177)	(1,604,909)	(74,719)
Theft	1,172	1,690	1,468	8,523
Violent	5,887	6,634	6,180	21,817
21 or older	(55,683,051)	(30,384,978)	(19,034,201)	(970,029)
Theft	527	772	992	4,385
Violent	1,657	2,009	2,038	7,317
White total	(70,525,916)	(38,614,327)	(23,704,906)	(1,167,764)
Theft	634	903	1,216	5,049
Violent	2,289	2,720	2,717	10,232
Black:				
12 to 17	-	(247,840)	(1,560,344)	(1,430,274)
Theft	-	1,401	1,504	2,978
Violent	-	5,787	3,744	5,308
18 to 20	-	(132,279)	(662,344)	(646,899)
Theft	-	3,338	1,461	2,991
Violent	-	6,630	4,699	4,791
21 or older	-	(1,066,089)	(5,633,031)	(5,796,858)
Theft	-	1,575	1,444	2,514
Violent	-	3,277	1,993	2,248
Black total	-	(1,446,208)	(7,855,719)	(7,874,031)
Theft	-	1,706	1,457	2,637
Violent	-	4,013	2,568	3,012
Total:	(70,525,916)	(40,060,535)	(31,560,625)	(9,041,795)
Theft	634	931	1,275	2,948
Violent	2,289	2,766	2,679	3,944

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

total population, it is clear that their rates of personal victimization should closely parallel the total rates of personal victimization. Consequently, white rates of both theft and violent victimization generally increase as the percent black in a neighborhood increases. If analysis of white victimization rates is restricted to a comparison between all-white neighborhoods and neighborhoods that are 1 to 5 and 6 to 59 percent black, rates of victimization generally increase moderately (especially for violent victimization) as percent black increases for all three white age groups. In contrast, the magnitude of the rate increases between the 6 to 59 and 60 to 100 percent black categories for each age group is much larger. Taken together, the total percent increases are quite large. For example, white juvenile rates of theft victimization increase from 980 to 1,219 to 2,482 to 8,179 (a total increase of over 700 percent) as percent black increases. This total increase must be viewed with caution, however, owing to the fact that the estimated rate of white victimization presented in the 60 to 100 percent black category may be statistically unreliable due to the relatively small population base on which it is computed. Collapsing the two highest percent black categories into one category (6 to 100 percent) results in a much smaller total increase for white rates of victimization as percent black increases (e.g., 175 percent for white juveniles). Nevertheless, white rates of personal victimization, especially theft victimization, are generally strongly related to the racial composition of neighborhoods.

In contrast, except for black juvenile rates of theft victimization, rates of victimization for blacks of all ages are higher in predominately white (1 to 5 percent black) neighborhoods or neighborhoods with a majority of blacks (60 to 100 percent black) than in neighborhoods with 6 to 59 percent of the population being black.²³ For example, as percent black

in a neighborhood increases, rates of black juvenile violent victimization decrease from 5,787 to 3,744 before increasing to 5,308. Once again, due to relatively small population bases, the reader should be cautious in interpreting the estimated rates of victimization presented for black juveniles and 18 to 20 year olds in the 1 to 5 percent black category. A noteworthy finding revealed in Table 4 is that white rates of victimization are higher than black rates of victimization for juveniles and 18 to 20 year olds living in neighborhoods that are 6 to 59 percent black. For example, the white juvenile rate of theft victimization is 2,482 while the black juvenile rate of victimization is 1,504. These data suggest that racial differences in victimization are in large part dependent on the neighborhood context.

An examination of the relationship between neighborhood racial composition and personal victimization controlling for extent of urbanization revealed that the general patterns noted above maintained within categories of the urban-rural dimension (data not shown in tabular form). In contrast to the neighborhood economic status measures, neighborhood racial composition was not found to be more strongly related to personal victimization in urban rather than rural areas. Furthermore, "at or near home" rates of personal victimization across neighborhoods with varying racial composition (see Table D3) closely parallel the rates based on all victimizations.²⁴ In general, "at or near home" rates increase as percent black in a neighborhood increases, with the relationship being stronger for theft victimization than violent victimization. It thus seems reasonable to conclude that the relationship between percent black and personal victimization is not spurious due to misclassification.

Neighborhood Residential Mobility

Ecological studies have indicated that communities characterized by high residential mobility have higher crime levels than those communities which have more stable, less mobile populations (see, e.g., Longmoor and Young 1936; Shaw and McKay, 1942; Clinard, 1964). Within Shaw and McKay's (1942) theoretical framework, community mobility was considered an important cause of delinquency. Mobility was hypothesized to lead to community instability and weak social controls which in turn accounted for delinquency. Shaw and McKay showed that official delinquency rates in Chicago were correlated with the percentage decrease or increase in population, rates being highest in areas with declining population. If community mobility is indeed positively related to delinquent behavior, then rates of personal victimization should also be highest in those areas characterized by high residential mobility.

Although the indicator of community mobility used here is different (percent of persons 5 years old or older living in the same house as 5 years ago) than the one employed by Shaw and McKay, the age, race and sex-specific rates of total personal victimization presented in Table 5 support Shaw and McKay's finding that community mobility is positively related to crime. For every population subgroup, neighborhood residential mobility exhibits a strong monotonic positive relationship with victimization rates. That is, persons living in neighborhoods characterized by high residential mobility (a low percentage of persons living in the same house as 5 years ago) have higher rates of victimization than persons living in neighborhoods with low residential mobility. For example, white male juvenile rates of victimization increase steadily from 5,590 to 7,465 to 9,990 as residential mobility increases, a total increase of almost 79

Table 5 Estimated annual rates of victimization in total personal crimes (per 100,000 persons in each population subgroup), by race, sex and age of victim, and neighborhood residential mobility, NCS national data, 1973-1978 aggregate

Race, sex and age of victim	Residential Mobility		
	(Percent of total persons 5 years old and over living in same house as 5 years ago.)		
	Low (63-99)	Medium (47-62)	High (0-46)
White male:			
12 to 17	5,590 (2,491,128) ^a	7,465 (4,795,114)	9,990 (2,247,628)
18 to 20	7,667 (1,035,108)	9,182 (2,110,801)	13,685 (1,445,917)
21 or older	2,389 (12,667,969)	3,102 (24,956,599)	4,895 (12,689,723)
White male total	3,218 (16,194,205)	4,161 (31,862,514)	6,369 (16,383,268)
Black male:			
12 to 17	6,909 (361,572)	8,724 (791,471)	10,915 (457,313)
18 to 20	5,292 (142,288)	8,628 (300,804)	10,931 (224,381)
21 or older	4,198 (1,202,014)	5,242 (2,719,659)	6,055 (1,622,373)
Black male total	4,863 (1,705,874)	6,231 (3,811,934)	7,494 (2,304,066)
White female:			
12 to 17	3,155 (2,351,821)	3,822 (4,635,720)	5,080 (2,156,135)
18 to 20	3,632 (1,043,435)	5,116 (2,192,963)	6,806 (1,484,883)
21 or older	1,405 (14,055,269)	1,738 (27,903,527)	2,687 (13,799,173)
White female total	1,744 (17,450,525)	2,229 (34,732,210)	3,333 (17,440,191)
Black female:			
12 to 17	3,372 (389,893)	4,093 (769,079)	6,560 (469,130)
18 to 20	5,017 (169,237)	5,035 (355,681)	9,014 (249,130)
21 or older	2,770 (1,547,792)	3,218 (3,411,735)	4,124 (1,992,406)
Black female total	3,061 (2,106,922)	3,508 (4,536,495)	4,995 (2,710,666)
Total:	2,591 (37,457,526)	3,322 (74,943,153)	4,965 (38,838,191)

^aSix year average estimated number of persons in the population.

percent. In fact, for most of the population subgroups, rates of victimization are almost twice as high in neighborhoods characterized by high residential mobility than they are in areas marked by less residential mobility. Even for black male adults and black female adults, those groups whose victimization is least related to neighborhood mobility, areas marked by greater mobility exhibit rates of victimization which are almost 1.5 times greater than areas characterized by a less mobile population. For example, black male adult rates increase from 4,198 to 6,055 as neighborhood mobility increases, a total increase of 44 percent. Thus, neighborhood mobility is related to victimization in a manner largely independent of the race, sex and age of neighborhood residents. In addition, the positive relationship between mobility and victimization is not altered when extent of urbanization is introduced as a control variable (data not shown in tabular form).

A crime specific analysis has revealed that neighborhood mobility has an equally strong relationship with theft victimization as for violent victimization for all the population subgroups in question (data not presented in tabular form). The crime-specific "at or near home" rates of personal victimization presented in Table D4 support not only the general finding that neighborhood mobility is positively related to victimization but also that there are no significant type of crime differences in this relationship.²⁵ For example, the marginal totals in Table D4 show that both theft and violent victimization rates are about twice as high in areas characterized by high mobility than areas marked by low residential mobility (207 versus 99 and 818 versus 373, respectively). It thus seems apparent that the strong relationship evidenced between neighborhood mobility and victimization is not spurious due to victim migration. Furthermore, this relationship is equally strong for theft and violent victimizations, and for all the population

subgroups examined.

Structural Density

An increasing number of criminologists have argued that the ecological studies of crime spawned by Shaw and McKay have concentrated on the relationship between the social environment and crime to the neglect of the relationship between the physical environment and crime (Jeffrey, 1977). In response to such criticisms of traditional ecological research, a growing number of studies have focused on the relationship between crime and characteristics of the physical environment (e.g., land use patterns, building designs - see Newman, 1972). In the present study, we will examine the relationship between the structural density of a neighborhood, defined by the percentage of total units within a neighborhood which are in structures of 5 or more units, and rates of personal victimization. Although this indicator can be interpreted as a general measure of the physical environment (see e.g., Choldin and Roncek, 1976), it is likely that structural density is strongly related to population density (i.e., high structurally dense neighborhoods also have a high population density). If so, then the findings from this study can be compared to studies examining the relationship between population density and crime. These studies generally find a positive association between the two variables (e.g., Schmitt, 1957; Bloom, 1966; Schmid and Schmid, 1972; Beasley and Antunes, 1974).

The marginal totals in Table 6 indicate that neighborhood structural density has a strong positive relationship with both theft and violent rates of victimization, the strength of the relationship being somewhat weaker for violent victimization. As neighborhood structural density increases from low (0 percent of units in structures of 5 or more units)

Table 6 Estimated annual rates of victimization in personal crimes (per 100,000 persons in each population subgroup), by sex and age of victim, type of crime,^a and neighborhood structural density, NCS national data, 1973-1978 aggregate

Sex and age of victim and type of crime	Structural Density		
	(Percent of total units in structures of 5 or more units)		
	Low (0)	Medium (1-11)	High (12-99)
Male:			
12 to 17	(2,535,377) ^b	(5,911,240)	(2,839,495)
Theft	1,226	1,689	3,369
Violent	4,436	5,754	6,863
18 to 20	(995,928)	(2,667,980)	(1,676,827)
Theft	1,440	1,701	2,884
Violent	5,569	7,881	9,608
21 or older	(10,923,985)	(28,777,534)	(16,906,316)
Theft	540	723	1,755
Violent	1,788	2,402	3,356
Male total	(14,455,290)	(37,356,754)	(21,422,638)
Theft	722	944	2,054
Violent	2,512	3,318	4,303
Female:			
12 to 17	(2,396,206)	(5,755,340)	(2,753,431)
Theft	376	534	924
Violent	2,559	3,313	4,464
18 to 20	(931,616)	(2,725,971)	(1,906,810)
Theft	345	1,052	1,672
Violent	3,320	3,952	5,278
21 or older	(11,742,502)	(31,980,012)	(19,763,010)
Theft	348	456	1,389
Violent	899	1,176	1,861
Female total	(15,070,324)	(40,461,323)	(24,423,251)
Theft	352	507	1,358
Violent	1,313	1,764	2,417
Total:	(29,526,614)	(77,818,077)	(45,845,889)
Theft	533	717	1,683
Violent	1,899	2,510	3,298

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

to high (12 percent or more of units in structures of 5 or more units), rates of theft victimization more than triple (533 to 717 to 1,683) while rates of violent victimization less than double (1,899 to 2,510 to 3,298). Examination of the relationship by sex and age of victim reveal comparable or even greater relative differences in rate increases between theft and violent victimization for every population subgroup except 18 to 20 year old males. For this population subgroup, neighborhood structural density is only slightly more related to theft victimization than violent victimization (rate increases being 100 percent versus 75 percent, respectively). Nevertheless, it is apparent that for every population subgroup represented in this table, rates of victimization increase monotonically and substantially as neighborhood structural density increases. Introducing race of victim into this analysis does little to change these patterns. For every race, age and sex specific population subgroup, once again, rates of victimization are about twice as high in high structurally dense neighborhoods than less structurally dense neighborhoods (data not presented in tabular form).

If structural density is strongly related to population density, then it is possible that structural density is simply a proxy measure of a major known correlate of victimization -- extent of urbanization (e.g., Gibbs, 1979). It should be noted that the two major criteria for defining areas as urban are population size and density (see Laub, 1980). To examine the above possibility, the relationship between neighborhood structural density and personal victimization was analyzed controlling for extent of urbanization.

The data presented in Table 7 indicate that rates of victimization vary in the same direction as neighborhood structural density in urban, suburban, and rural areas. However, the relationship between neighborhood structural

Table 7 Estimated annual rates of victimization in total personal crimes (per 100,000 persons in each population subgroup), by age of victim, extent of urbanization, and neighborhood structural density, NCS national data, 1973-1978 aggregate

Age of victim and extent of urbanization	Structural Density		
	(Percent of total units in structures of 5 or more units)		
	Low (0)	Medium (1-11)	High (12-99)
12 to 17:			
SMSA Central Cities	7,793 (584,219) ^a	8,410 (2,505,628)	8,919 (2,879,793)
Balance of SMSA	5,279 (1,960,368)	6,036 (4,612,210)	7,037 (2,213,198)
Areas Outside of SMSA	2,717 (2,386,996)	3,787 (4,548,802)	5,258 (499,935)
18 to 20:			
SMSA Central Cities	8,284 (238,961)	8,285 (1,255,977)	10,283 (1,816,211)
Balance of SMSA	5,879 (747,267)	7,786 (2,019,114)	8,865 (1,244,744)
Areas Outside of SMSA	4,273 (941,317)	6,171 (2,118,861)	8,593 (522,684)
21 or older:			
SMSA Central Cities	2,848 (2,761,378)	3,431 (14,168,536)	4,843 (20,058,986)
Balance of SMSA	2,044 (8,250,793)	2,344 (22,664,688)	3,243 (13,367,460)
Areas Outside of SMSA	1,318 (11,654,315)	1,687 (23,924,323)	3,126 (3,242,881)
Total:			
SMSA Central Cities	4,016 (3,584,558)	4,466 (17,930,141)	5,716 (24,754,990)
Balance of SMSA	2,884 (10,958,428)	3,300 (29,296,012)	4,157 (16,825,402)
Areas Outside of SMSA	1,726 (14,982,628)	2,309 (30,591,986)	4,045 (4,265,500)

^aSix year average estimated number of persons in the population.

density and victimization is stronger in rural areas than urban areas. For example, juveniles living in urban areas have rates that only increase a total of 14 percent as structural density increases (7,793 to 8,410 to 8,919) whereas comparable rates for juveniles living in rural areas increase over 90 percent (2,717 to 3,787 to 5,258). These relative differences in rate increases across urban and rural areas generally maintain for the other age groups. It is also interesting to note that the relationship between neighborhood structural density and personal victimization, regardless of extent of urbanization, is generally weakest for juveniles and strongest for adults. For instance, as noted above, urban juvenile rates of victimization increase only 14 percent as neighborhood structural density increases. In contrast, rates for urban adults increase 70 percent from 2,848 to 3,431 to 4,843 as structural density increases.

The above discussion indicates that neighborhood structural density is more than a mere proxy variable for extent of urbanization. Quite to the contrary, it allows the researcher to specify the relationship between extent of urbanization and personal victimization. Earlier studies have found that urban rates of victimization are generally higher than suburban rates which are in turn higher than rural rates (Gibbs, 1979; Laub and Hindelang, 1981). The present study has shed additional light on this relationship by suggesting that at least for adults, personal victimization is related to the interaction of urbanization and neighborhood structural density. For example, Table 7 shows that rural adults living in relatively high structurally dense areas have slightly higher rates of victimization than urban adults living in low structurally dense neighborhoods (3,126 versus 2,848). Thus for adults, it is not solely the larger type of area

residence (i.e., urban versus rural) but also the more local type of area residence (i.e., low structural density versus high structural density) which is reflected in rates of personal victimization. In contrast, juvenile rates of victimization are always lower in rural than suburban areas, which are in turn lower than urban rates, regardless of the structural density of the neighborhood.

Examination of rates of victimization based on "at or near home" incidents, once again, revealed that the relationship found between a neighborhood characteristic (in this instance, structural density) and victimization is not spurious due to the misclassification of victimization events. For every age group and type of crime, "at or near home" rates closely parallel rates based on all victimization incidents (see Table D5). Thus, we can conclude that neighborhood structural density is, indeed, strongly related to personal victimization, with the substantial positive relation being stronger for theft victimization than violent victimization and among rural residents than urban residents. To the extent that structural density is related to population density, these results generally support studies finding a positive relationship between density and crime (Schmitt, 1957; Bloom, 1966; Beasley and Antunes, 1974).

Summary

In this section of the report we have examined the relationship between selected neighborhood characteristics and rates of victimization as indicated by reports to NCS interviewers, controlling for individual demographic characteristics of the victim known to be associated with the likelihood of victimization (e.g., age, race, and sex). Some of the major findings of this analysis include:

Neighborhood economic status. Controlling for extent of urbanization, analysis revealed that in urban areas, neighborhood economic status has a moderate negative relationship with victimization. That is, as neighborhood economic status increases, rates of personal victimization decrease. The relationship was found to be stronger for adult victimization than juvenile victimization and for theft rather than violent victimization. In contrast, rural juveniles have higher rates of victimization in high economic status neighborhoods than low economic status neighborhoods. Generally, for rural adults the relationship was weak and inconsistent.

Neighborhood unemployment. The relationship between neighborhood unemployment and victimization was found to be moderate and positive for juvenile and adult victimization, but weak and inconsistent for 18 to 20 year old victimization. The relationship was stronger for theft than violent victimization, especially among blacks. Extent of urbanization differences were also revealed with urban victimization being more strongly related to neighborhood unemployment than rural victimization.

Neighborhood racial composition. White rates of victimization were found to be positively related to the percent black in neighborhoods. This relationship was found to be stronger for theft victimizations than violent victimizations. In contrast, black rates of victimization were higher in predominately white neighborhoods or predominately black neighborhoods than in the intermediate percent black category.

Neighborhood residential mobility. This characteristic was found to have a relatively strong positive relationship with the victimization of all the population subgroups examined (age, race, and sex-specific). In most instances, rates of victimization in neighborhoods characterized by high residential mobility were twice as large as comparable rates in neighborhoods marked by low residential mobility.

Neighborhood structural density. The relationship between neighborhood structural density and victimization was found to be strong and positive for all population subgroups, but comparatively stronger with adult victimization than juvenile victimization. Neighborhood structural density was found to be more strongly related with theft victimization than violent victimization and rural victimization than urban victimization.

III. Rates of Offending

To this point in the analysis our examination of neighborhood characteristics has relied exclusively on rates of victimization. It should be emphasized at this point that prior ecological research utilizing official data has focused on the relationship between ecological variables and crime and delinquency rates derived from offender based arrest data. Accordingly, we now shift the focus of attention from the victim to the offender. That is, rates of offending for age and race-specific population subgroups will be analyzed across neighborhood characteristic dimensions. The major question to be addressed is whether selected neighborhood characteristics are related to the involvement of juveniles in serious criminal offending.

The rates of offending reported in this section are designed to parallel arrest data by taking into account the total number of offenders in each age and race subgroup theoretically at risk of being arrested for the offense reported to survey interviewers. This is accomplished by summing the total number of offenders in each age and race subgroup for each victimization event. For example, if one victim reports having been victimized by one black adult and two white juveniles and another victim reports having been victimized by one white juvenile and one black adult, the race and age subtotals for these victimizations would be two black adults and three white juveniles. This subtotalling process continues across all incidents reported

to survey interviewers and results in a total number of offenders for each race and age subgroup. These subgroup totals serve as the numerators for the rates of offending reported in this section; the denominators are estimates of the number of persons in the general neighborhood population (i.e., potential offenders) in each race and age subgroup. Rates of offending are reported per 100,000 potential offenders and they convey the extent to which persons with particular demographic characteristics are disproportionately involved as offenders in personal victimizations (Hindelang and McDermott, 1981:40).²⁶

Before turning to the analysis, it is necessary to address certain limitations of the NCS data when used to study rates of offending in relation to neighborhood characteristics. In the above section total rates of victimization were compared to rates of victimization computed from the subset of victimizations which occurred "at or near home." In this manner the possible influence of victim migration on patterns of victimization was empirically assessed. However, when the focus shifts to rates of offending an additional concern arises, namely, the residence of the offender. In the NCS data set there is no mechanism by which to determine where the offender lives. Even if a victimization occurred in the victim's neighborhood, the offender may have migrated there from his/her own residential neighborhood. As Schmid (1960) and Boggs (1965) have shown, high offender residence and high offense occurrence areas do not necessarily coincide. Certain structural characteristics of neighborhoods (e.g., high income) may differentially attract offenders from distant areas for certain crimes (e.g., burglary). Because rates of offending standardize for the number of potential offenders in the victim's neighborhood, substantial offender migration will distort patterns of offending when considered in

relation to neighborhood characteristics.

In an effort to minimize whatever effects may result from offender migration, the primary focus of this section will be the relationship between neighborhood characteristics and age-specific rates of offending. Besides the fact that age is the major offender characteristic of interest in this monograph, prior ecological research has shown that juveniles travel less than adults to commit crimes, especially for personal crimes (Chappell, 1965; Suttles, 1968; Turner, 1969; Baldwin and Bottoms, 1976; Phillips, 1980). Turner (1969), for example, found that 75 percent of all juvenile offenses occurred within one mile of the delinquent's home. In one of the most recent studies available on this topic, Phillips (1980:175) found that the mean distance travelled by juveniles for assault was relatively short--0.7 of a mile. Hence, it appears that juvenile offending rates are inherently less subject to error introduced by offender mobility than offending rates computed for other demographic subgroups, particularly since little is known about the mobility patterns of race and sex-specific subgroups (see Phillips, 1980).

Furthermore, by limiting the focus to an age-specific analysis, the result is to increase the population bases upon which the rates are calculated. That is, when the offending data are examined by age, race, and sex of offender across neighborhood characteristic dimensions, the bases upon which the rates are calculated are significantly reduced in number. This is especially true for race-specific rates of offending for two compounding reasons. First, blacks represent only about 12 percent of the U.S. population. Second, the distribution of blacks across the economic status and percent black variables is highly skewed. For example,

only 8 percent of all blacks live in high economic status neighborhoods. When this already small black population base is further disaggregated by age and sex, the absolute number of remaining cases is extremely reduced (e.g., less than 200 unweighted cases in some categories). Thus, even a small amount of offender migration, in conjunction with a small population base, may produce unreliable rates. Contrariwise, when the data are analyzed only by age, the population bases in most instances are sufficiently large that it would take a considerable amount of offender mobility (i.e., more than the literature suggests) to alter the general patterns of offending. Therefore, in an attempt to reduce the possible effects of offender migration bias, the following analysis concentrates on the relationship between age-specific rates of offending and neighborhood characteristics.

Neighborhood Economic Status

Table 8 presents age and crime-specific rates of offending across categories of neighborhood economic status. The marginal totals show that the rate of theft offending is highest in lower economic status neighborhoods, the rate of 1,619 being approximately 60 percent higher than the rate of 1,010 in higher economic status areas. Violent offending shows a weaker relationship, with the highest rate of 4,318 exhibited in the middle economic status category. While the total theft offending pattern is consistent with past research utilizing delinquency data, it is apparent that this relationship is accounted for largely by the offending behavior of adults. For example, the adult theft offending rate of 1,070 in low economic status areas is twice the corresponding rate of 523 found in high economic status areas, with medium economic status areas falling in the middle (787). The juvenile offending patterns, however, do not fall

Table 8 Estimated annual rates of offending in personal crimes (per 100,000 potential offenders in each population subgroup), by age of offender,^a type of crime,^b and neighborhood economic status, NCS national data, 1973-1978 aggregate^c

Age of offender and type of crime	Economic Status (Percent of total families with less than \$5,000 family income)		
	Low (27-99)	Medium (11-26)	High (0-10)
	12 to 17:	(6,005,803) ^d	(9,794,931)
Theft	2,723	3,090	2,055
Violent	5,563	7,510	6,590
18 to 20:	(3,029,340)	(5,115,910)	(2,759,885)
Theft	5,229	4,097	4,263
Violent	7,772	10,759	11,966
21 or older:	(32,016,575)	(55,848,360)	(32,228,426)
Theft	1,070	787	523
Violent	2,460	2,501	2,086
Total: ^e	(41,051,718)	(70,759,201)	(41,378,727)
Theft	1,619	1,345	1,010
Violent	3,306	4,318	3,442

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

into line with expectations derived from past ecological research focusing on offenses of juveniles in official records (e.g., Shaw and McKay, 1942). The victimization survey data shown in Table 8 indicate that for both theft and violent crimes, juvenile offending is highest in the medium economic status category, and not in the lowest.

In the analysis of victimization rates, extent of urbanization was shown to be an important variable in specifying the relationship between economic status and personal victimization. Consequently, Table 9 displays age and crime-specific rates of offending across categories of neighborhood economic status, controlling for extent of urbanization. Focusing on total rates of theft offending, one notes that the rate in low economic status urban neighborhoods (4,187) is 3 times higher than the theft rate of offending in high economic status urban neighborhoods (1,397). In contrast, the relationship between economic status and theft offending in rural areas is negligible (443 versus 462). Moreover, these general patterns hold for all offender age groups. For juvenile (12 to 17), youthful (18 to 20), and adult (21 and over) offenders, rates of theft offending in urban areas show a strong, monotonic decrease as neighborhood economic status increases. For example, the rate of juvenile theft offending of 7,318 in low economic status urban areas is more than twice the rate of 3,305 in high economic status urban areas. Adult theft offending is 4 times higher in low economic status than in high economic status urban neighborhoods. Violent offending rates, on the other hand, are rather weakly and inconsistently related to economic status for all age groups in urban areas. In contrast, both the violent and the theft rates of offending for suburban juveniles and adults are negatively related to neighborhood economic status.

Table 9 Estimated annual rates of offending in personal crimes (per 100,000 potential offenders in each population subgroup), by age of offender,^a extent of urbanization, type of crime,^b and neighborhood economic status, NCS national data, 1973-1978 aggregate^c

Age of offender, extent of urbanization and type of crime	Economic Status		
	(Percent of total families with less than \$5,000 family income)		
	Low (27-99)	Medium (11-26)	High (0-10)
12 to 17:			
SMSA Central Cities	(1,684,208) ^d	(2,884,244)	(1,401,189)
Theft	7,318	6,418	3,305
Violent	10,060	11,042	9,219
Balance of SMSA	(663,613)	(3,579,145)	(4,543,019)
Theft	3,171	2,553	1,836
Violent	8,996	7,744	6,064
Areas Outside of SMSA	(3,657,983)	(3,331,543)	(446,208)
Theft	526	784	353
Violent	2,870	4,202	3,701
18 to 20:			
SMSA Central Cities	(987,977)	(1,650,441)	(672,731)
Theft	11,714	8,129	6,533
Violent	10,574	14,030	14,157
Balance of SMSA	(399,611)	(1,697,358)	(1,914,155)
Theft	2,964	3,312	3,728
Violent	7,989	11,436	11,404
Areas Outside of SMSA	(1,641,751)	(1,768,111)	(172,999)
Theft	1,877	1,086	1,362
Violent	6,034	7,058	9,652
21 or older:			
SMSA Central Cities	(8,929,505)	(19,352,276)	(8,707,118)
Theft	2,764	1,273	693
Violent	4,029	2,923	2,263
Balance of SMSA	(3,855,735)	(18,994,902)	(21,432,305)
Theft	961	704	465
Violent	2,923	2,578	2,043
Areas Outside of SMSA	(19,231,335)	(17,501,182)	(2,089,002)
Theft	305	340	411
Violent	1,639	1,950	1,780
Total: ^e			
SMSA Central Cities	(11,601,690)	(23,886,961)	(10,781,038)
Theft	4,187	2,368	1,397
Violent	5,462	4,671	3,909
Balance of SMSA	(4,918,959)	(24,271,405)	(27,889,479)
Theft	1,422	1,159	912
Violent	4,154	3,959	3,340
Areas Outside of SMSA	(24,531,069)	(22,600,836)	(2,708,209)
Theft	443	464	462
Violent	2,117	2,682	2,599

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

The interaction effect arising from a dual consideration of neighborhood economic status and extent of urbanization is further evidenced when one considers in more detail the theft offending behavior of juveniles. In high economic status urban neighborhoods the juvenile theft offending rate of 3,305 is 9 times higher than the theft rate of 353 in high economic status rural neighborhoods. In contrast, the juvenile theft offending rate of 7,318 in urban low economic status neighborhoods is 14 times higher than the corresponding rate of 526 in low economic status rural neighborhoods. A similar but even stronger pattern is evident for adult theft offending. It appears, then, that the relationship between urbanization and criminal offending is to a large extent dependent on the local neighborhood context. In a similar vein, the relationship between neighborhood economic status and offending is more properly understood when considered in the wider context of the urban-rural dimension.

The relationship between economic status and age-specific offending rates controlling for extent of urbanization was further analyzed for those personal crimes occurring "at or near home" (see Table D6). As in Table 9, juvenile "at or near home" theft offending rates decrease monotonically as neighborhood economic status increases within urban areas. For example, the theft offending rate of 925 in low economic status, urban neighborhoods is approximately 4 times higher than the corresponding rate of 214 in high economic status, urban neighborhoods. The violent "at or near home" offending rate for juveniles in urban areas is highest in the medium economic status category, as was the case for total violent victimizations in Table 9. Overall, the parallel between the "at or near home" patterns and the total patterns is quite strong, especially for the major offender subgroup of interest -- juveniles. That is, the juvenile offending rate for theft crimes

is highest in low economic status urban neighborhoods for both sets of rates. Thus, to the extent that juvenile offenders commit crimes near their residences the findings in Table 9 regarding juveniles are not spurious due to victim migration.

In sum, when the relationship between neighborhood economic status and offending is considered without reference to the wider context of extent of urbanization, juvenile offending is weakly related to economic status, while adult offending shows a slight decrease as economic status increases. When the data are examined by extent of urbanization, both "at or near home" and total juvenile theft offending are negatively related to neighborhood economic status in urban areas. Violent offending, on the other hand, is highest in the middle economic status category for juvenile offenders in urban areas. For theft offending, then, these victimization survey data are in substantial agreement with prior ecological research utilizing official data that found a negative relationship between delinquency and economic status in urban areas (e.g., Shaw and McKay, 1942; Schmid, 1960; Chilton, 1964). The data also indicate that adult offending for both theft and violent crimes is highest in low economic status urban neighborhoods. Similarly, juvenile and adult offending were also found to have a negative relationship with neighborhood economic status in suburban areas. Thus, these victimization survey data do not support the claim that urban and metropolitan based ecological correlations between economic status and official crime rates are simply the result of differential police patrol of lower socio-economic status urban neighborhoods (e.g., Chambliss and Seidman, 1971). Quite to the contrary, rates of juvenile and adult victimization, juvenile theft offending, and adult offending (both theft and violent)

are higher in lower economic status urban areas, both for total personal victimizations and for those personal victimizations that occurred at or near the victim's home.

Neighborhood Unemployment

Table 10 displays age and crime-specific rates of offending across categories of neighborhood unemployment. The marginal totals show that rates of offending in both theft and violent crimes are higher in the highest neighborhood unemployment category than in the medium or low categories. This pattern holds for all offender age groups. For example, the juvenile offending rate in theft crimes of 3,768 in high unemployment neighborhoods is approximately twice as great as the corresponding rate of 1,951 in low unemployment neighborhoods. Violent offending by juveniles is somewhat more weakly related to unemployment, with the rate in the high unemployment category (7,904) being approximately 35 percent higher than the violent rate of 5,886 in low unemployment neighborhoods. This crime-type difference is evidenced for all offender age groups, especially adults. For instance, the adult increase in rates of theft offending as neighborhood unemployment increases is 150 percent, whereas the corresponding violent offending increase is approximately 50 percent. In brief, neighborhood unemployment exhibits a rather strong positive relationship with the offending rates of juveniles, 18 to 20 year olds, and adults, particularly for theft crimes.

Table D7 in Appendix D also reveals that the patterns noted above remain when only "at or near home" victimizations are considered. For example, the juvenile offending rate in "at or near home" theft crimes in high unemployment neighborhoods is 75 percent higher than the "at or

Table 10 Estimated annual rates of offending in personal crimes (per 100,000 potential offenders in each population subgroup), by age of offender,^a type of crime,^b and neighborhood unemployment, NCS national data, 1973-1978 aggregate^c

Age of offender and type of crime	Unemployment		
	(Percent of total civilian labor force 16 years old and over which is unemployed)		
	Low (0-2)	Medium (3-5)	High (6-99)
12 to 17:	(4,714,880) ^d	(11,278,233)	(6,198,035)
Theft	1,951	2,411	3,768
Violent	5,886	6,415	7,904
18 to 20:	(2,205,904)	(5,646,587)	(3,052,642)
Theft	3,541	4,172	5,632
Violent	9,727	9,938	11,152
21 or older:	(25,689,586)	(62,669,027)	(31,734,746)
Theft	487	699	1,221
Violent	1,926	2,263	2,972
Total: ^e	(32,610,370)	(79,593,847)	(40,985,423)
Theft	905	1,188	1,935
Violent	3,026	3,396	4,327

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

near home" theft rate in low unemployment neighborhoods. The overall positive relationship between offending and neighborhood unemployment is maintained for all offender age groups in "at or near home" incidents. In addition, neighborhood unemployment is positively related to age-specific offending rates (particularly theft) regardless of extent of urbanization. Unlike percent of families with less than \$5,000 family income, unemployment is positively related to theft offending for juveniles even in rural areas (data not shown in tabular form). Thus, introducing extent of urbanization as a control variable does not alter the general relationships noted in Table 10. In sum, the overall positive relationship found between neighborhood unemployment and NCS age-specific offending rates is congruent with prior cross-sectional research utilizing official data that has shown unemployment to be positively related to crime and delinquency (e.g., Kvalseth, 1977).

Neighborhood Racial Composition

Table 11 presents age-specific rates of offending in theft and violent crime across categories of neighborhood racial composition (percent black). For all offender age groups and the marginal totals, one notes a rather strong, consistent increase in rates of theft offending as percent black increases. For instance, the juvenile offending rate in theft crimes in high percent black (60 to 100) neighborhoods of 8,462 is over 5 times higher than the corresponding rate of 1,607 in all white neighborhoods. The strength of the positive relationship between percent black and juvenile theft offending is magnified by the size of the rate in the high percent black category. It should be noted, however, that this category has a relatively small population base (7 percent of the total),

Table 11 Estimated annual rates of offending in personal crimes (per 100,000 potential offenders in each population subgroup), by age of offender,^a type of crime,^b and neighborhood racial composition, NCS national data, 1973-1978 aggregate^c

Age of offender and type of crime	Racial Composition			
	(Percent Black)			
	0	1-5	6-59	60-100
12 to 17:	(10,322,582) ^d	(5,584,290)	(4,726,664)	(1,557,611)
Theft	1,607	2,700	3,152	8,462
Violent	5,687	7,298	7,146	10,186
18 to 20:	(4,690,707)	(3,192,046)	(2,296,715)	(725,665)
Theft	3,220	3,544	5,485	13,153
Violent	10,075	10,362	9,186	14,030
21 or older:	(56,233,437)	(32,065,536)	(24,989,415)	(6,804,970)
Theft	466	699	1,090	2,813
Violent	2,065	2,563	2,473	3,752
Total: ^e	(71,246,726)	(40,841,872)	(32,012,794)	(9,088,246)
Theft	812	1,194	1,709	4,606
Violent	3,117	3,819	3,644	5,675

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

and hence the magnitude of the rate increase from the 6 to 59 to the 60 to 100 percent black category should be viewed with caution. When the columns are collapsed to create a 6 to 100 percent black category the juvenile theft rate is 4,468, as compared to 8,462 in the original 60-100 percent black category. Although considerably reduced in magnitude, the rate is nevertheless over 2.5 times higher than the juvenile theft rate of 1,607 in all-white neighborhoods. Violent offending, on the other hand, shows a weaker yet still overall positive relationship with percent black for all age groups. Even though there is virtually no difference between the 1 to 5 and 6 to 59 percent black categories for juvenile, youthful, and adult offenders in violent crimes, age-specific rates of violent offending in the 60 to 100 (or 6 to 100) percent black category are still higher than the respective rates in 0 percent black neighborhoods.

In addition, the patterns discussed above generally remain the same when only "at or near home" victimizations are analyzed, especially for theft victimizations (see Table D8). It can be seen that the theft offending rates for all offender age groups in "at or near home" incidents are positively related to percent black. This positive relationship between "at or near home" theft offending and percent black is further realized when the columns are collapsed to form the category 6 to 100 percent black. In this case the theft rates in the highest percent black category are at least twice as high as the theft rates in 0 percent black neighborhoods, for all age groups. As in Table 11, the violent "at or near home" rates show a weaker but nonetheless positive relationship with percent black for juvenile, youthful, and adult offenders.

In sum, percent black shows a relatively strong positive relationship with both total and "at or near home" offending rates for each offender age group, with the relationship being stronger for theft crimes. Moreover,

this positive relationship is manifested in urban, suburban, and rural areas (data not shown in tabular form). It should be emphasized here, however, that racial composition is a characteristic of aggregates and not of individuals. Thus, although percent black may be positively related to crime rates, it does not necessarily follow that black individuals are responsible for this relationship. Lander (1954) for example, found that the percentage of blacks in Baltimore census tracts was positively related to overall delinquency rates. However, black delinquency rates were actually higher in areas of maximum racial heterogeneity (percent black = 50) rather than in either low or very high percent black areas. Another study utilizing official data sources (Quinney, 1964) found that non-white juvenile delinquency rates were highest in census tracts with the lowest proportion of non-whites. Unfortunately, since the population bases for blacks living in low percent black neighborhoods is by definition small, coupled with the fact the blacks represent only 12 percent of the population, the data here do not permit a reliable analysis of black offending rates across the categories of percent black. As mentioned earlier, even a small amount of offender migration in conjunction with small population bases may produce unreliable rates.

Neighborhood Residential Mobility

Shaw and McKay (1942) demonstrated that official delinquency rates were positively correlated with the residential mobility of Chicago census tracts. Do victimization survey data support this finding using the percent of total persons 5 years and over living in the same house as 5 years ago as a measure of mobility? Table 12 displays race, age, and crime-specific rates of offending across neighborhood residential mobility dimensions. It should

Table 12 Estimated annual rates of offending in personal crimes (per 100,000 potential offenders in each population subgroup), by race and age of offender,^a type of crime,^b and neighborhood residential mobility, NCS national data, 1973-1978 aggregate^c

Race and age of offender and type of crime	Residential Mobility		
	(Percent of total persons 5 years old and over living in same house as 5 years ago)		
	Low (63-99)	Medium (47-62)	High (0-46)
White:			
12 to 17	(4,842,949) ^d	(9,430,834)	(4,403,764)
Theft	773	872	1,206
Violent	3,664	4,434	5,498
18 to 20	(2,078,543)	(4,303,764)	(2,930,800)
Theft	1,818	1,503	1,292
Violent	6,879	6,952	8,023
21 or older	(26,723,238)	(52,860,126)	(26,488,896)
Theft	214	232	494
Violent	1,230	1,699	2,582
White total: ^e	(33,644,730)	(66,594,724)	(33,823,460)
Theft	394	453	656
Violent	1,931	2,430	3,434
Black:			
12 to 17	(751,465)	(1,560,550)	(926,443)
Theft	12,078	10,555	11,827
Violent	11,555	15,906	18,317
18 to 20	(311,525)	(656,486)	(473,511)
Theft	24,321	19,013	21,171
Violent	20,519	21,320	22,082
21 or older	(2,749,805)	(6,131,395)	(3,614,778)
Theft	3,135	3,481	5,273
Violent	3,880	4,757	7,351
Black total: ^e	(3,812,795)	(8,348,431)	(5,014,732)
Theft	6,634	6,031	7,890
Violent	6,756	8,150	9,266
Total: ^e	(37,457,525)	(74,943,155)	(38,838,192)
Theft	1,030	1,072	1,601
Violent	2,423	3,065	4,186

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 8 percent of the total) in which the victim did not know whether there was one or more than one offender and incidents involving offenders of "mixed" races.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

be noted here that because percent black and mobility are weakly related ($\gamma = -.13$, See Appendix B), the distribution of blacks across mobility categories is not highly skewed as it was for economic status, unemployment and percent black. The data here are thus more amenable to an analysis of offender characteristics by race and age.

The marginal totals in Table 12 indicate that total rates of theft and violent offending are related to residential mobility in a moderate, positive direction, with the strength of the relationship being stronger for violent offending. For example, the violent offending rate of 4,186 in neighborhoods characterized by a higher rate of residential mobility is approximately 70 percent higher than the violent offending rate of 2,423 in low residential mobility neighborhoods. Theft offending shows a monotonic but slightly weaker increase as mobility increases. When the data are disaggregated by age and race of offender, one notes that white juveniles exhibit higher theft and violent offending rates in the high residential mobility category. Black juveniles show a relatively large increase in violent rates of offending (58 percent) as residential mobility increases but virtually no relationship for theft rates of offending. Both black and white adults, on the other hand, exhibit monotonic increases in both theft and violent offending as the residential mobility of neighborhoods increases. For example, the white adult offending rate of 494 for theft crimes in high mobility neighborhoods is more than twice as large as the corresponding theft rate of 214 in neighborhoods with lower residential mobility. Both black and white 18 to 20 year old offenders exhibit weak and inconsistent relationships with mobility for theft and violent crimes. (However, the population bases for black 18 to 20 year olds are quite small, and therefore the percentage changes must be viewed with caution.)

In addition, the above analysis was performed utilizing only those incidents reported by victims' to have occurred "at or near home" (see Table D9). The "at or near home" patterns parallel the total offending patterns described above. For example, the juvenile offending rate in theft crimes in high residential mobility neighborhoods is over 2 times greater than the corresponding theft rate in neighborhoods characterized by low residential mobility (349 versus 166). Further "at or near home" analysis reveals that this pattern holds for both black and white juveniles (data not shown in tabular form). In sum, to the extent that juvenile offenders commit crimes near their homes, these victimization survey data indicate that juvenile offending for both whites and blacks is positively related to neighborhood residential mobility. Although employing a different measure of mobility, the above results are supportive of Shaw and McKay's (1942) finding that official delinquency rates are positively related to community population turnover.

Structural Density

Table 13 presents race and age-specific rates of offending by type of crime across dimensions of neighborhood structural density.²⁷ Prior ecological research has generally found area density to be positively related to official crime and delinquency rates (e.g., Schmitt, 1957; Bloom, 1966; Beasley and Antunes, 1974). To the extent that neighborhood population density and structural density are positively related, it appears from Table 13 that victimization data provide no exception to this general finding. Focusing first on the marginal totals, one notes the overall strong positive relationship between rates of offending and structural density, particularly for rates of theft offending, which increase over 200 percent from the low to high category (635 to 2,106). Moreover, it can be seen

Table 13 Estimated annual rates of offending in personal crimes (per 100,000 potential offenders in each population subgroup), by race and age of offender,^a type of crime,^b and neighborhood structural density, NCS national data, 1973-1978 aggregate^c

Race and age of offender and type of crime	Structural Density		
	(Percent of total units in structures of 5 or more units)		
	Low (0)	Medium (1-11)	High (12-99)
White:			
12 to 17	(4,282,050) ^d	(10,210,641)	(4,184,856)
Theft	558	839	1,508
Violent	3,007	4,695	5,488
18 to 20	(1,682,817)	(4,734,650)	(2,895,641)
Theft	946	1,306	2,161
Violent	5,334	7,214	8,496
21 or older	(20,546,778)	(55,155,596)	(30,369,886)
Theft	244	269	486
Violent	1,340	1,727	2,250
White total: ^e	(26,511,645)	(70,100,887)	(37,450,383)
Theft	339	423	729
Violent	1,862	2,535	3,094
Black:			
12 to 17	(607,844)	(1,344,305)	(1,286,309)
Theft	4,752	9,092	16,632
Violent	9,683	15,397	18,572
18 to 20	(229,143)	(602,747)	(609,632)
Theft	10,597	18,434	27,138
Violent	20,776	23,061	19,983
21 or older	(1,964,168)	(5,084,088)	(5,447,722)
Theft	2,167	3,083	5,341
Violent	3,634	5,254	5,978
Black total: ^e	(2,801,155)	(7,031,140)	(7,343,663)
Theft	3,419	5,550	9,126
Violent	6,352	8,723	9,344
Total: ^e	(29,312,800)	(77,132,027)	(44,794,046)
Theft	635	890	2,106
Violent	2,293	3,098	4,119

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 8 percent of the total) in which the victim did not know whether there was one or more than one offender and incidents involving offenders of "mixed" races.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

that for every race and age subgroup of the population except blacks aged 18-20, rates of offending for both theft and violent crimes increase monotonically as neighborhood structural density increases. In addition, for every race and age subgroup, rates of theft offending are more strongly related to structural density than violent offending rates. For example, black juvenile theft offending rates are 3.5 times higher in high structurally dense neighborhoods than in low density areas, whereas the corresponding violent rate is 2 times higher. White juveniles show the same pattern, as the theft offending rate of 1,508 in high density areas is 170 percent greater than the theft rate of 558 in the low density category, compared to an 80 percent difference (5,488 versus 3,007) for violent crimes. Only the black 18 to 20 year old offending rates for violent crimes seem not to be related consistently with structural density, as the rate of 19,983 in the high category is virtually no different than the rate of 20,776 in the low density category.

Also, the "at or near home" rates of offending presented in Table D10 exhibit very similar patterns with structural density as the patterns noted above. The only difference seems to be the strength of the relationship. In "at or near home" theft victimizations, the rate of juvenile offending in high density areas is over 4 times greater than in low density neighborhoods. On the whole, however, the patterns of offending for total and "at or near home" victimizations are very similar. Again, to the extent that juveniles offend in their own neighborhood, it can be concluded that neighborhood structural density is strongly related to theft offending, with the rates of theft offending for each race and age subgroup in higher density neighborhoods being 2 to 3 times higher than corresponding rates in low density neighborhoods. Although the increases are not as strong,

violent offending is still positively related to structural density for every race and age group except blacks 18-20. Moreover, these general patterns are maintained when the data are examined by extent of urbanization. Within urban, suburban, and rural areas, rates of offending increase as structural density increases, thus further indicating that density is not a simple proxy measure of urbanization (data not shown in tabular form). Hence, controlling for the individual-level variables of race and age of offender, and for the ecological-level variable extent of urbanization, these victimization data support earlier ecological research which found a positive relationship between official crime and delinquency rates and density (e.g., Schmitt, 1957; Bloom, 1966; Schmid and Schmid, 1972; Beasley and Antunes, 1974).

Summary

In this section of the report we have examined the relationship between neighborhood characteristics and rates of offending. The major question addressed was whether selected neighborhood characteristics are related to the involvement of juveniles in serious criminal offending. Some of the major findings of this analysis include:

Neighborhood Economic Status. Controlling for extent of urbanization, the analysis revealed that rates of theft offending are considerably higher in low economic status urban neighborhoods than in either medium or high economic status urban neighborhoods for juvenile, youthful, and adult offenders. Neighborhood economic status was also found to have a moderate negative relationship with the violent offending of urban adults. Juvenile and adult offending were found to have a moderate negative relationship with neighborhood economic status in suburban areas but a weak and inconsistent

relationship in rural areas.

Neighborhood Unemployment. Both theft and violent offending have a positive relationship with neighborhood unemployment for all offender age groups. This relationship is stronger for theft crimes than for violent crimes, especially for adult offenders.

Neighborhood Racial Composition. A strong positive relationship was found between theft offending and percent black for juvenile, youthful, and adult offenders. Violent offending shows a weaker yet still overall positive relationship with percent black for all offender age groups.

Neighborhood Residential Mobility. White juvenile offending in both theft and violent crimes is positively related to neighborhood residential mobility. Black juveniles, in contrast, show a positive relationship only for violent crimes. For adults, neighborhood residential mobility is positively related to both black and white offending in theft and violent crimes.

Neighborhood Structural Density. An overall strong positive relationship was found between rates of offending and neighborhood structural density, with the relationship being stronger for theft crimes than violent crimes. This pattern was evident for the offending of all race and age subgroups except for the violent offending of black 18 to 20 year olds.

IV. Characteristics of the Victimization Event

In the previous sections of this report rates of victimization and offending were analyzed for particular age, race, and sex subgroups across various neighborhood characteristic dimensions. In this section a somewhat different approach is taken in that we will examine whether elements of the victimization experience that generally contribute to the seriousness of the offense -- weapon use, injury, and loss -- vary by neighborhood characteristics. As Dunn (1974:85) has contended, crime incident characteristics add an

important dimension to an analysis of the distribution of crimes in relation to environmental attributes. Due to the fact that most ecological research has relied on information collected by police agencies, little is known about how crime incident characteristics vary across different neighborhood characteristic dimensions.

Empirical data on the form and content of victimizations can have important theoretical and policy implications. Within the criminological literature there is theoretical speculation that neighborhoods and crime patterns are related. For example, in their well-known book Delinquency and Opportunity, Cloward and Ohlin contend that "the content of the delinquent subculture is a more or less direct response to the local milieu in which it emerges" (1960:166). Clearly, it is of major theoretical and practical importance whether certain neighborhoods display distinct victimization patterns regarding use of weapons and extent of injury. If, for example, the percent of weapon use varies by neighborhood characteristics, then specialized crime prevention strategies can be adapted within these particular types of neighborhoods.

In the same fashion that the problem of misclassification of victimization events arose in the preceding analysis of rates of victimization and offending, possible misclassification may be present here as well and subsequently distort the findings at hand. Generally speaking, in the rates of victimization and offending sections the analysis of "at or near home" victimizations showed that the patterns among rates of victimization and offending based on all personal victimizations paralleled rates based solely on "at or near home" victimizations. A similar analysis of "at or near home" victimizations is performed in this section; however, because of the method of data presentation (percent distributions), the number of cases necessary for reliable analysis decreases

considerably as the number of variables examined increases. Thus, the "at or near home" analysis is possible only for certain subgroups (i.e., primarily adult offenders). Overall, on the basis of the analysis in the preceding sections, it seems likely that the total patterns are in fact indicative of the "at or near home" patterns.

Weapon use

This section of the report analyzes the use of weapons by juvenile, youthful and adult offenders across neighborhood characteristic dimensions. Previous research by McDermott and Hindelang (1981) found that "there was a systematic increase in the use of weapons as the offender age group increased" (1981:2). Specifically, guns were rarely used by juveniles in comparison with adults. In addition, as would be expected, the use of weapons was not independent of crime type. By definition, personal larceny and simple assault cannot involve the use of a weapon. Also by definition rape and robbery entail the actual use of force or threat of force and it is likely that weapons are utilized in these offenses to lend credence to such threats (see Appendix E and McDermott and Hindelang, 1981:23). Given the relationship among offender's age, type of crime, and weapon use, it is essential to examine the use of weapons across neighborhood characteristics by age of offender and by crime-specific categories.

The question arises as to whether offenders in certain neighborhoods will be more likely to use weapons in the commission of their offenses than offenders in other neighborhoods. For example, is structural density or the percent of black residents in an area related to the likelihood of weapon use? In the NCS interview, each victim was asked "Did the person(s) have a weapon such as a gun or knife, or something he was using as a weapon, such as a bottle or wrench?" Thus, data are available on both the extent of weapon use and the type of weapons used in robbery and aggravated assault.

The data in Table 14 display the percent of weapon use by age of offender²⁸ and type of crime across categories of neighborhood racial composition. As percent black increases it can be seen that the proportion of robbery offenders using weapons increases as well. This relationship is relatively strong for juvenile and adult offenders. For instance, in areas with a majority of black residents (60-100 percent black) 70 percent of the robbery victimizations by adult offenders involve use of a weapon compared with 57 percent in all white neighborhoods (0 percent black). For juvenile offenders 36 percent of the robbery victimizations in high percent black neighborhoods involved weapon use, compared to only 26 percent for robberies committed by juveniles in homogeneous white areas. On the other hand, the data for aggravated assault reveal little variation in the proportion of weapon use across the racial composition variable for all three offender age groups. Overall, the data for robbery show that weapon use indeed varies strongly by age of offender and also that robbery victimizations in areas with a large black population are more likely to involve the use of weapons than in areas with an all white population (i.e., 0 percent black).

In addition, the data were examined for the subset of victimizations that occurred "at or near home." The overall patterns displayed in Table 14 maintained for adult offenders. More specifically, the percent of weapon use was greater in high percent black neighborhoods as compared to low percent black neighborhoods. For example, in "at or near home" victimizations, 47 percent of the adult offenders used weapons in all white areas (i.e., 0 percent black) compared with 62 percent weapon use by adult offenders in areas with a majority of black residents (data not shown in tabular form). The strong parallel in patterns of adult weapon use between total personal victimizations and "at or near home" victimizations in relation to neighborhood racial composition thus lends greater credibility to the results shown in Table 14.

Table 14 Percent of weapon use in personal victimization, by age of offender,^a type of crime, and neighborhood racial composition, NCS national data, 1973-1978 aggregate^b

Age of offender and type of crime	Racial Composition (Percent Black)			
	0	1-5	6-59	60-100
Under 18:				
Robbery	26 ^c (426,851) ^d	31 (364,273)	35 (327,995)	36 (279,691)
Aggravated Assault	93 (605,328)	96 (408,196)	95 (335,020)	97 (176,814)
18 to 20:				
Robbery	46 (374,558)	53 (284,876)	43 (302,625)	55 (224,767)
Aggravated Assault	93 (535,924)	95 (397,712)	95 (302,271)	91 (139,217)
21 or older:				
Robbery	57 (944,074)	54 (761,908)	62 (796,424)	70 (537,552)
Aggravated Assault	93 (1,940,549)	95 (1,408,222)	96 (1,357,152)	96 (651,171)
Total:				
Robbery	47 (1,745,483)	48 (1,411,057)	52 (1,427,044)	58 (1,042,010)
Aggravated Assault	93 (3,081,801)	95 (2,214,130)	96 (1,994,443)	95 (967,202)

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^cPercent of weapon use.

^dNumber in parentheses shows estimated total number of victimizations (those with weapon use plus those without weapon use) on which percent shown is based.

Table 15 displays the percent of weapon use in robbery and aggravated assault by age of offender and neighborhood economic status. These data indicate that as neighborhood economic status increases the percent of weapon use in robbery victimizations decreases, particularly for juvenile and youthful offenders. For example, juvenile robbery offenders utilized weapons 36 percent of the time in low economic status neighborhoods compared to only 24 percent of the time in high economic status neighborhoods. Adult weapon use in robbery is weakly related to neighborhood economic status, with adult offenders in low economic status areas using weapons only 4 percent more often than their counterparts in high economic status neighborhoods. In addition, the above patterns for adult offenders remained the same when "at or near home" victimizations were examined. Overall, the data in Table 15 show that weapon use in robbery decreases as neighborhood economic status increases for juvenile and youthful offenders, whereas weapon use in aggravated assault is unrelated to neighborhood economic status for all offender age groups. Also, as expected on the basis of prior research (McDermott and Hindelang, 1981), adult offenders use weapons to a greater extent than juvenile offenders in each type of neighborhood.

Table 16 presents the percent of weapon use in robbery and aggravated assault by age of offender and neighborhood residential mobility. Perhaps surprisingly, given the rather strong positive relationship between mobility and criminal victimization and offending reported above and in prior ecological research (e.g., Shaw and McKay, 1942), variation in neighborhood residential mobility shows virtually no relationship to the percent of weapon use within the crime categories of robbery and aggravated assault for all three offender age groups. In addition, the data show no variation across low, medium and high categories of neighborhood structural density and unemployment in the

Table 15 Percent of weapon use in personal victimization, by age of offender,^a type of crime, and neighborhood economic status, NCS national data, 1973-1978 aggregate^b

Age of offender and type of crime	Economic Status (Percent of total families with less than \$5,000 family income)		
	Low	Medium	High
	(27-99)	(11-26)	(0-10)
Under 18:			
Robbery	36 ^c (349,099) ^d	33 (683,568)	24 (366,142)
Aggravated Assault	96 (391,329)	95 (721,721)	94 (412,308)
18 to 20:			
Robbery	52 (348,273)	49 (547,729)	44 (290,824)
Aggravated Assault	95 (320,755)	95 (670,904)	94 (383,466)
21 or older:			
Robbery	63 (999,880)	58 (1,440,141)	59 (599,937)
Aggravated Assault	96 (1,739,601)	94 (2,526,776)	94 (1,090,718)
Total:			
Robbery	55 (1,697,252)	50 (2,671,438)	45 (1,256,903)
Aggravated Assault	96 (2,451,685)	94 (3,919,401)	94 (1,886,492)

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^cPercent of weapon use.

^dNumber in parentheses shows estimated total number of victimizations (those with weapon use plus those without weapon use) on which percent shown is based.

Table 16 Percent of weapon use in personal victimization, by age of offender,^a type of crime, and neighborhood residential mobility, NCS national data, 1973-1978 aggregate^b

Age of offender and type of crime	Residential Mobility		
	(Percent of total persons 5 years old and over living in same house as 5 years ago)		
	Low (63-99)	Medium (47-62)	High (0-46)
Under 18:			
Robbery	34 ^c (316,750) ^d	30 (611,896)	31 (470,163)
Aggravated Assault	96 (264,088)	93 (770,706)	96 (490,564)
18 to 20:			
Robbery	49 (249,880)	47 (499,114)	50 (437,832)
Aggravated Assault	94 (284,609)	94 (614,005)	94 (476,510)
21 or older:			
Robbery	60 (501,389)	58 (1,312,417)	61 (1,226,152)
Aggravated Assault	93 (884,551)	94 (2,471,849)	95 (2,000,695)
Total:			
Robbery	50 (1,068,019)	49 (2,423,427)	52 (2,134,147)
Aggravated Assault	94 (1,433,248)	94 (3,856,560)	95 (2,967,769)

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^cPercent of weapon use.

^dNumber in parentheses shows estimated total number of victimizations (those with weapon use plus those without weapon use) on which percent shown is based.

proportion of personal crimes in which a weapon was used. This holds true for all three offender age groups. (Data not shown in tabular form). Therefore, three of the ecological variables analyzed in this monograph -- neighborhood residential mobility, neighborhood structural density, and neighborhood unemployment -- show little relationship to the propensity of weapon use in robberies and aggravated assaults.²⁹

In addition to the extent of weapon use, the type of weapon used -- gun, knife, other -- can be assessed with the NCS data. Table 17 presents the percent of type of weapon used by various offender age groups across dimensions of neighborhood racial composition. For juvenile offenders, the proportion of gun, knife, and other weapon use in total personal victimizations does not vary substantially across areas. For youthful and adult offenders, however, as percent blacks increases the proportion of gun use increases as well. For example, adult offenders in high percent black neighborhoods (60-100) used guns in 26 percent of total personal victimizations involving weapon use, compared with only 14 percent in 0 percent black neighborhoods. The use of knives and other weapons does not vary consistently with neighborhood racial composition, the one exception being that adults show a slight tendency to use knives to a greater extent in areas that have a majority of black residents (60-100 percent) compared with areas that have all white residents (0 percent black).³⁰ These patterns shown in Table 17 concerning gun use may be a function of crime type differences. Since guns are quite often used as the tools of the trade in robbery victimizations (Normandeau, 1969:198,199) and theft victimizations are more often committed in areas with a large black population, the relationship between gun use and percent black is not surprising.

Seriousness Scores

It is also of interest to determine whether consequences of the victimization event which contribute to the seriousness of the victimization

Table 17 Percent of type of weapon used in total personal victimization, by age of offender ^a and neighborhood racial composition, NCS national data, 1973-1978 aggregate ^b

Age of offender and type of weapon	Racial Composition (Percent Black)			
	0	1-5	6-59	60-100
Under 18:				
Gun	4 ^c (2,694,874) ^d	3 (1,900,129)	4 (1,558,275)	8 (843,716)
Knife	9 (2,694,874)	10 (1,900,129)	10 (1,558,275)	9 (843,716)
Other	12 (2,694,874)	12 (1,900,129)	12 (1,558,275)	15 (843,716)
18 to 20:				
Gun	8 (2,037,024)	8 (1,512,545)	11 (1,092,624)	17 (549,624)
Knife	11 (2,037,024)	13 (1,512,545)	14 (1,092,624)	15 (549,624)
Other	15 (2,037,024)	14 (1,512,545)	15 (1,092,624)	15 (549,624)
21 or older:				
Gun	14 (6,768,147)	13 (4,860,047)	19 (4,037,597)	26 (1,960,355)
Knife	9 (6,768,147)	11 (4,860,047)	13 (4,037,597)	16 (1,960,355)
Other	13 (6,768,147)	13 (4,860,047)	14 (4,037,597)	11 (1,960,355)
Total:				
Gun	10 (11,500,045)	10 (8,272,721)	14 (6,688,496)	20 (3,353,695)
Knife	9 (11,500,045)	11 (8,272,721)	12 (6,688,496)	14 (3,353,695)
Other	13 (11,500,045)	13 (8,272,721)	14 (6,688,496)	13 (3,353,695)

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^cPercent with particular type of weapon used.

^dNumber in parentheses shows estimated total number of victimizations (those with weapon use plus those without weapon use) on which percent shown is based.

(i.e., injury and loss) also vary across neighborhood characteristic dimensions. In order to address this issue a system of seriousness weighting devised by Sellin and Wolfgang (1964) and adapted to the scoring of NCS victimizations will be utilized. The Sellin-Wolfgang seriousness scores are designed primarily to take into account the extent of victim injury and amount of monetary/property loss suffered by the victim within similar crime type categories (i.e., injury and loss in robbery incidents).³¹ The data in Table 18 display seriousness levels in total personal victimizations across categories of neighborhood racial composition, controlling for age of offender. Generally, for juvenile offenders the seriousness levels are fairly stable across the racial composition dimension. One notes the small proportion of victimizations of a high seriousness nature committed by juvenile offenders in neighborhoods of varying racial composition. This finding supports earlier research by McDermott and Hindelang (1981) that suggests juveniles usually commit less serious offenses than adult offenders in terms of injury, weapon use, and loss. However, the data do show slight variation in seriousness levels across areas with varying proportions of black residents for youthful and adult offenders. For example, as the proportion of the black population in an area increases the proportion of cases in the upper seriousness level increases from 11 to 23 percent for adult offenders. The corresponding increase for youthful offenders is 9 percent.

The data were also examined for the relationship between age of offender, seriousness levels, and the neighborhood characteristics of residential mobility, economic status, unemployment and structural density. For these neighborhood characteristics no substantial variation is revealed across neighborhoods in terms of seriousness of the victimization event. This pattern holds generally for juvenile, youthful, and adult offenders. As would be expected, age of offender is related to seriousness level in that as age increases, the proportion of victimization in the higher seriousness levels increases as well. However, once offender age is

Table 18 Percent distribution of the seriousness of total personal victimization, by age of offender^a and neighborhood racial composition, NCS national data, 1973-1978 aggregate^b

Age of offender and seriousness level	Racial Composition (Percent Black)			
	0	1-5	6-59	60-100
Under 18:				
0 - 1 (low)	37 ^c	35	37	33
2 - 3	36	36	34	33
4 - 5	23	25	24	26
6 -30 (high)	4	5	6	8
Estimated number of victimizations:	100 (2,694,874)	100 (1,900,129)	100 (1,558,275)	100 (843,716)
18 to 20:				
0 - 1	27	27	23	15
2 - 3	36	34	35	32
4 - 5	28	28	30	35
6 -30	9	10	12	18
Estimated number of victimizations:	100 (2,037,024)	100 (1,512,545)	100 (1,092,624)	100 (549,624)
21 or older:				
0 - 1	22	22	18	13
2 - 3	38	37	32	29
4 - 5	29	30	34	34
6 -30	11	11	16	23
Estimated number of victimizations:	100 (6,768,147)	100 (4,860,047)	100 (4,037,597)	100 (1,960,335)

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^cColumn percent.

controlled, little variation in seriousness levels is displayed across categories of these neighborhood characteristics. (Data not shown in tabular form). Only racial composition is related to the seriousness of the victimization experienced by area residents.

Summary

In this section of the report, we have examined whether certain characteristics of the victimization event - weapon use and seriousness - are related to selected neighborhood characteristics. Some of the major findings of this analysis include the following.

Neighborhood racial composition is related to the nature and extent of weapon use, and to a lesser degree the seriousness of the victimization event. The analysis showed that weapon use in robbery offending, especially gun use, is more prevalent in neighborhoods with a higher percentage of blacks. This pattern held for juvenile, youthful and adult offenders. In addition, victimizations committed by youthful and adult offenders in high percent black neighborhoods were shown to be of a more serious nature than those in all white neighborhoods.

Neighborhood economic status was shown to be related to the likelihood of weapon use by juvenile and youthful offenders but not to the weapon use of adult offenders. Specifically, in low economic status neighborhoods, juvenile and youthful offenders are more likely to use weapons than their counterparts in high economic status neighborhoods.

The neighborhood characteristics of residential mobility, structural density, and unemployment were shown to be unrelated to both extent of weapon use and the seriousness of the victimization event.

V. Concluding Remarks

Despite the quantity of ecological studies conducted in the United States in this century, it has been recently argued that there is relatively little valid information available on the neighborhood contexts of serious juvenile criminal behavior (e.g., Smith and Alexander, 1980). The reasons for this statement are varied but most revolve around the fact that the overwhelming majority of ecological studies have been based on official police and court statistics. Because official data by definition rely on the selection mechanisms of the criminal justice system, it has been argued that such factors as differential police patrols and differential reporting of crimes to the police have resulted in misleading correlations between crime rates and community characteristics (e.g., Chambliss and Seidman, 1971). As Baldwin (1979) has commented after a recent assessment of the state of the art in ecological research, "new sources of information about levels of crime . . . raise the serious possibility that our understanding of the nature of delinquency areas may be no more than rudimentary" (1979:58). To date, then, theorists and policy analysts alike have had a limited information base on which to draw inferences and make policy decisions regarding the ecological distribution of criminal activity.

The present study has utilized victimization survey data which are independent of the selection mechanisms of the criminal justice system to study the relationship between neighborhood characteristics and crime and delinquency. Because in victimization surveys, data are gathered directly from the victims, it cannot be the case that differences in victimization and offending rates across neighborhood characteristic dimensions are accounted for by such factors as more intensive police patrols in lower socio-economic status communities. Therefore, victimization data provide

a means of assessing the extent to which relationships found between areal characteristics and officially-based crime and delinquency rates remain when the potential biasing factors that may be introduced by the criminal justice system itself are circumvented.

The present analysis has revealed that there are, in fact, distinct patterned variations in rates of victimization and rates of offending across neighborhood characteristic dimensions. Disproportionately high rates of victimization and offending were generally found in neighborhoods characterized by high residential mobility, high structural density, high unemployment and a high percentage of blacks. In addition, neighborhood economic status was found to be negatively related to rates of victimization and offending in urban areas. These victimization survey results are in substantial agreement with prior ecological research utilizing official data which have found positive ecological correlations between crime rates and unemployment (Danziger, 1976; Kvalseth, 1977), residential mobility (Shaw and McKay, 1942; Chilton, 1964) percent black (Schmidt, 1960; Beasley and Antunes, 1974), and density (Schmitt, 1956; Bloom, 1966). The present findings regarding the relationship between neighborhood economic status and victimization and offending rates are also compatible with urban-based studies relying on official data which have demonstrated a negative relationship between areal economic status and crime (Bordua, 1958; Chilton, 1964; Gordon, 1967). Thus, for the neighborhood characteristics examined, it can be concluded that there are indeed differences in criminal behavior across ecological areas which cannot be explained by the selection mechanisms of the criminal justice system.

In contrast to rates of victimization and offending, the extent of weapon use and seriousness of the victimization event were not found to be related to the majority of neighborhood characteristics examined. Any

public or media conception that the consequences of the criminal event are inherently more serious in certain types of areas is generally not supported by victimization survey data. That is, although there may be more criminal activity in particular neighborhoods, once a victimization does occur there is little "ecological effect" regarding the outcome suffered by the victim.

This report has also indicated that the strength of the relationship between selected neighborhood characteristics and crime varies considerably by population subgroups (i.e., age, race, sex), type of crime, and the wider social context in which neighborhoods are located (i.e., urban versus rural). For example, it was found that most neighborhood characteristics were more strongly related to theft crimes than violent crimes and to adult offending than juvenile offending. Extent of urbanization differences were also revealed in that neighborhood economic status was shown to be more strongly related to victimization in urban areas than rural areas, whereas the relationship between structural density and victimization was stronger in rural areas than urban areas. It is evident, then, that the nature of the relationship between areal characteristics and crime is quite complex, thereby preventing simple generalizations regarding the influence of neighborhood characteristics on criminal behavior to all population subgroups, types of crimes, and social contexts. Only through detailed specification can the linkages between neighborhood characteristics and crime be better understood and effective community crime prevention and control strategies be developed.

From the standpoint of criminological research and theory, the data presented in this report should serve as a stimulus for additional exploration of the neighborhood contexts of crime and delinquency. Since the general aim of this monograph has been to provide an exploratory descriptive analysis,

no attempt has been made to determine the independent effect of each neighborhood characteristic on victimization. The inter-correlations among selected neighborhood characteristics (see Appendix B) render ambiguous any claims as to the most important neighborhood characteristic operating to produce high levels of crime. Rather than focusing on one particular neighborhood characteristic, the reader might better interpret the present findings in terms of the general social conditions which are common to the selected neighborhood characteristics. For example, low economic status, high residential mobility, and racial heterogeneity have been interpreted as joint indicators of a community social disorganization and instability factor (Shaw and McKay, 1942; Kornhauser, 1978). The construction of neighborhood typologies through more complex multivariate analysis may help to shed light on the joint effects that neighborhood characteristics have on criminal behavior through their interaction with each other.

Another area of research that may be fruitfully explored is the nature and extent of criminal mobility by age, race, and sex-specific offender subgroups. As noted above rates of offending must be viewed within the realm of current knowledge of offender mobility since the residence of the offender cannot be determined with the NCS data. While the research that has been done in this area indicates that most offenders, particularly juveniles, do not travel far to commit offenses, further research is needed to examine what characteristics of neighborhoods are related to the migration patterns of those offenders who do travel.

In terms of theory, the general import of this study has been to support theoretical efforts which emphasize the community context as a primary factor in the origin and nurturing of crime and delinquency. While a great deal of criminological theory on the etiology of crime is oriented

toward explaining individual-level correlates of crime, these victimization data, within their limitations, suggest that economic status, mobility, racial composition, and density are important ecological correlates of crime in their own right. Hence, a promising area of future theoretical development appears to lie in the linkage of individual with ecological correlates of crime in an effort to provide a fuller understanding of the micro and macro processes underlying criminal behavior.

Notes

- ¹In recent years some researchers (e.g., Johnstone, 1978) have attempted to use the self-report method to examine ecological patterns of delinquency. Even though self-report data are independent of the criminal justice system they have their own problems with respect to the ecology of delinquency. First, since self-report studies typically focus on individual correlates of delinquency, information is usually not collected (or if so, analyzed) concerning the ecological characteristics of the offender's neighborhood. Second, the self-report method has to date not tapped in sufficient numbers serious crimes such as rape, robbery and assault, thus limiting the scope of a self-report ecological study.
- ²See Appendix B for an exact definition of the neighborhood characteristic variables used in this analysis.
- ³See Garofalo and Hindelang (1977) and U.S. Bureau of the Census (undated) for additional detail about design and collection.
- ⁴This procedure does not completely ignore mobile families. Although no attempt is made to trace families that move away from an address in the sample, a similar mobile family may move into that address and will be included in the survey.
- ⁵See Garofalo and Hindelang (1977) for more details.
- ⁶In a small proportion of cases (victims 12 and 13 years of age and victims who for some physical or mental reason are unable to respond for themselves) interviews are completed by proxy with another household member.
- ⁷According to Shenk and McInerney, "enumeration districts are administrative divisions set up by the Census Bureau to take the census in areas where door-to-door enumeration was used, averaging 1,000 population, which are the equivalent to ED's in the city mail delivery areas of the 145 SMSA's where the census was taken by mail in 1970" (Shenk and McInerney, 1978:22, Note 9).
- ⁸The cutting points of the neighborhood characteristic variables have been chosen on the basis of a number of concerns. As Gordon (1967) has shown, measures tapping the "tails of a distribution" maximize ecological correlations when the tail of the distribution is hypothesized (known) to be relevant to the occurrence of the dependent variable (e.g., low SES and crime). This concern is balanced in the present analysis by the requirement that each category of the independent variable contain enough cases allowing for

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statistically reliable estimates of rates of victimization and offending. The above concerns have been accommodated by trichotomizing each neighborhood characteristic into categories of low, medium and high with approximately 25 percent of the cases being in the low and high categories and 50 percent falling in the medium category. In the instance of the percent black variable, its natural distribution was so skewed (43 percent of the cases being in the 0 percent black category) that the range had to be categorized into four parts for meaningful analysis to take place.

⁹While the above definition departs from the traditional conception of neighborhood, it nonetheless offers the researcher significant analytic opportunities which previous ecological studies have been lacking. For example, most ecological studies of crime and delinquency have focused on the variations in crime rates in particular cities. While having the advantage of being able to point to a particular locale and stating that this area has relatively high crime rates, these studies have been spatially bound - they describe patterns unique to each city and are therefore not generalizable to other communities. The present study, in contrast, focuses on crime patterns not unique to any one geographical area. By aggregating all neighborhoods in the nation that are similar according to their value on a social structural characteristic, the findings reported in this monograph have a national basis and therefore are more generalizable than the findings of most prior ecological studies. In brief, the focus of this monograph is the overall relationship between the objective social structural characteristics of neighborhoods and criminal victimization, not how criminal victimization varies across identifiable geographic locations.

¹⁰The problematic nature of interpreting the NCS place of occurrence variable is indicated by the revision of responses available to interviewees regarding the question, "Where did this incident take place?" Starting in 1979, respondents were allowed more specific choices that would facilitate interpretation of exactly where the victimization occurred. Unfortunately, NCS data with the revised choices are not available for the years 1973-1978.

¹¹This is not to suggest that the misclassification issue is equivalent for rates of victimization and rates of offending. For rates of offending there is the additional concern of the residence of offender. That is, even though we can analyze the subset of victimizations that explicitly took place in the victim's neighborhood, the NCS data do not allow an empirical determination of the residence of offender. This problem will be discussed in detail in Section III.

¹²McInerney also addresses a methodological problem stemming from the neighborhood characteristic identifiers that has been easily resolved. He notes (1978:15) that due to a computer programming mistake, 17 of the 55 neighborhood characteristics contain a rounding error, with ratios exceeding .995 being identified as a .00 ratio. This mistake would result, for example, in a neighborhood with a ratio of .996 for

percent black (all black) being assigned a ratio of .00 (all non-black). Fortunately, only two of the neighborhood characteristics to be examined in the monograph contain the rounding error. In an analysis of the frequency distribution of a 1/6 sample of the total cases, the Bureau of the Census (Garland, 1976:3) shows that only 62 persons in a total of 16,120 persons (.4 percent) fall in the .99 category of Percent of Units in Structures of 5+ Units (structural density), one of the two characteristics of interest containing the rounding error. Since the frequency distribution shows a monotonic decline in the number of persons in a category as the percentages increase, it is safe to assume that the number of persons falling in the 100 percent category would be only about .1 percent of the total.

The problem of the coding error for the second variable, Percent black, has been resolved by a secondary analysis of the appropriate household variable on the NCS data file, inferring which cases have been miscoded, and then properly recoding them. By examining the race of head of household variable in the NCS data set, it was discovered that a small percent of the heads of households in the .00 percent black neighborhood category were black. Assuming that these anomalies were due to miscoding (no blacks should be in all white neighborhoods), these cases were recoded into the 100 percent category (all black). It thus seems quite reasonable to conclude that the coding error problem has been resolved for all neighborhood characteristics of interest.

¹³The relatively broad range of most of the neighborhood characteristic variables also bears on another methodological issue raised by McInerney. He notes (1978:11) that because the recall period for the NCS national sample is 6 months, at any given enumeration there are a certain number of new residents since the last interview. Thus, McInerney reasons that a substantial share of incidents experienced by new residents occurred in another locale. While certain NCS replacement-household respondents may have been victimized in prior residential neighborhoods, it is not unreasonable to assume that the characteristics (e.g., racial composition) of their previous neighborhood fall within the same range as their current neighborhood (e.g., both 6-59 percent black). Indeed, sociological research has shown that Americans' residential mobility opportunities are limited (see e.g., Boyce, 1971). For the most part, when people move from one neighborhood to another, the neighborhoods are not vastly discrepant. People move into neighborhoods only marginally "better" or "worse". Given that the categories constructed for the neighborhood characteristics are rather broad (i.e., four out of five are trichotomized), it is unlikely that replacement households introduce significant error into the analysis.

¹⁴Extending analysis through 1978 also raises the problem of increasing the number of missing values. It is recalled that housing units in the NCS sample built since 1970 are not matched with neighborhood characteristic identifiers. Preliminary analysis revealed that the increase in missing values over time (due to newly constructed housing units being added to the NCS sample) is not very great, ranging from about 7 percent of the total for 1973-1974 to 11 percent of the total for 1977-1978 (the average being 9.3 percent). Therefore, the error that may be introduced by this

issue seems minimal. Since the focus of this report is the relationship between neighborhood characteristics and victimization all incidents which occurred to residents of households for which neighborhood characteristic identifiers are not available have been excluded from the analysis.

¹⁵Gordon (1967) has empirically demonstrated that the size of an ecological correlation between area economic status and crime is in part due to the indicator chosen for analysis. He argues that non-median based measures result in larger ecological correlations with crime than median based measures (e.g., median income). This is because non-median based measures tap into the range of economic status in which crime and delinquency is hypothesized to be concentrated, namely the lowest levels of economic status, while median based measures do not. Therefore, a non-median based measure (percent of total families in a neighborhood with less than \$5,000 family income) will be utilized in the present analysis.

¹⁶Respondents interviewed in the NCS sample are classified into three racial categories - white, black, and other. In the 1973 to 1978 period, according to Bureau of the Census and NCS counting rules, Spanish-Americans were classified as whites. Because so few of the respondents are classified as other (about 2 percent, representing mainly Orientals and American Indians) these data are excluded from analysis.

¹⁷Elsewhere this classification and criticism of it as a measure of the urban-rural dimension has been discussed in detail (see Laub, 1980). As that author concluded, problems with this classification are present but should not preclude it being used in an informative manner.

¹⁸The patterns exhibited in Table 2 maintain for both black and white adults. For juveniles and 18 to 20 year olds, black rates of victimization followed no general or consistent pattern. This is probably attributable to the small population bases on which rates are computed when the data are broken out by age, race and extent of urbanization. In addition, because it is known that family income of victim is an individual-level correlate of victimization (Hindelang, 1976:120) analysis was conducted controlling for family income of victim. Generally it was found that the relation between neighborhood economic status and victimization was independent of family income of victim. That is, patterns in victimization rates across neighborhood economic status levels were similar for victims of all income levels. A separate analysis of sex and age-specific rates, controlling for extent of urbanization revealed that introducing sex of victim did not alter the general relationships found.

¹⁹Because extent of urbanization was found to specify the relationship in question, the "at or near home" rates are presented by extent of urbanization. Due to the small number of victimizations (as opposed to offenders) involved in "at or near home" incidents, analysis is not crime or race specific.

²⁰Our analysis has also supported Gordon's contention that non-median based measures result in higher ecological correlations than median based measures (1967). Preliminary analysis employing neighborhood median income showed that, generally, relationships between it and personal victimization were similar to relationships between our chosen indicator of economic status (percent of total families in a neighborhood with less than \$5,000 income) and personal victimization but consistently of a smaller order.

²¹Once again, analysis controlling for family income of victim revealed that the patterns maintained between neighborhood unemployment and victimization. That is, regardless of family income of victim, rates of personal victimization were found to be higher in higher unemployment areas than low unemployment areas.

²²In the case of blacks 18 to 20 years, population bases on which rates of victimization are computed are so small that estimated rates of victimization are likely to be statistically unreliable. This unreliability problem is further compounded when analysis is limited to solely "at or near home" incidents, which reduces the numerator found in the rate. Generally speaking, estimated rates of victimization become more statistically unreliable as the population base and the number of incidents on which it is based decreases.

²³A separate race and sex-specific analysis has revealed that the above patterns hold for black females as well as black males. White female patterns were also found to be consistent with white male patterns.

²⁴Race specific analysis of "at or near home" rates of victimization could be conducted only for black adults due to the small bases and relatively few number of "at or near home" victimizations involving black juveniles and black 18 to 20 year olds. In the case of black adults, patterns between "at or near home" rates parallel total rates.

²⁵Although theft victimization rates for juveniles increase from 30 to 141 as neighborhood mobility increases, rate changes being more substantial than for comparable changes in violent victimization (369 to 732), the juvenile theft rate in low mobility neighborhoods is based on relatively few incidents and therefore should be viewed with caution.

- 26 It should be noted that for both arrest data published in the Uniform Crime Reports -- and for reports of victims in victimization surveys -- it is not possible to ascertain the number of distinct offenders either arrested or reported by victims. Thus, one limitation of victimization survey data for rates of offending reported in this section is that it is not possible to tell the extent to which a small number of offenders account for a large proportion of offenses. For a discussion of this and other limitations of the NCS offending rates see Hindelang and McDermott, (1981:39-42).
- 27 As was the case with mobility, the distribution of blacks is not extremely skewed across density categories and thus the data are more amenable to a race-specific analysis.
- 28 In this section of the report juvenile offenders are categorized as those offenders perceived to be under 18 years of age. In the rates of victimization and rates of offending sections, it was necessary to restrict the age category of juveniles to 12 to 17 year olds because population base estimates are not available for those persons under the age of 12. However it should be emphasized that victimizations involving offenders under 12 years of age represent less than 1 percent of the total.
- 29 The "at or near home" victimizations were examined for both neighborhood mobility and neighborhood structural density and use of weapons. That analysis showed that overall the patterns for adult offenders evident for all personal victimizations (regardless of place of occurrence) held for the "at or near home" victimizations by adult offenders.
- 30 In an examination of the subset of victimizations that occurred "at or near home" by adult offenders, the data revealed that as the percentage of black residents within an area increased the use of guns, knives, and other weapons increased as well. In fact, the proportion of gun use increased monotonically from 11 to 24 percent across the percent black dimension. Knives and other weapons showed similar monotonic patterns. Thus, the "at or near home" patterns replicate those found for total victimizations.
- 31 For example, if a victim suffered minor injuries that required no medical attention, a weight of 1 was assigned. If the injury required medical attention, but no hospitalization, the weight was 4, and if hospitalization was necessary, a weight of 7 was assigned. Similar weights were used depending on the value of money or property stolen or of property damaged. In addition, if the offender used a weapon 2 points were added to the overall seriousness score. For a more extended discussion of the Sellin-Wolfgang seriousness scale and its adaption to the NCS data see Appendix E in Hindelang and McDermott, (1981).

Appendix A
NCS Household Interview Schedule

FORM NCS-1 AND NCS-2 (4-19-77)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
ACTING AS COLLECTING AGENT FOR THE
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
U.S. DEPARTMENT OF JUSTICE

**NATIONAL CRIME SURVEY
NATIONAL SAMPLE**

NCS-1 - BASIC SCREEN QUESTIONNAIRE
NCS-2 - CRIME INCIDENT REPORT

NOTICE - Your report to the Census Bureau is confidential by law (U.S. Code 42, Section 3771). All identifiable information will be used only by persons engaged in and for the purposes of the survey, and may not be disclosed or released to others for any purpose.

Sample (cc 4) Control number (cc 5) Ck Serial
JO PSU Segment

Household number (cc 2) Land use (cc 9-11)

INTERVIEWER: Fill Sample and Control numbers, and items 1, 2, 4, and 9 at time of interview.

1. Interviewer identification Code Name (010)

2. Record of interview Line number of household respondent (cc 12) Date completed (011)

3. TYPE Z NONINTERVIEW Interview not obtained for Line number (016, 017, 018, 019) NOTE: Fill NCS-7 Non-interview Record, for Types A, B, and C non-interviews. Complete 14-21 for each line number listed.

4. Household status (020) 1 Same household as last enumeration 2 Replacement household since last enumeration 3 Previous noninterview or not in sample before

5. Special place type code (cc 6c) (021)

6. Tenure (cc 8) (022) 1 Owned or being bought 2 Rented for cash 3 No cash rent

7. Type of living quarters (cc 15) (023) Housing unit 1 House, apartment, flat 2 HU in nontransient hotel, motel, etc. 3 HU - Permanent in transient hotel, motel, etc. 4 HU in rooming house 5 Mobile home or trailer 6 HU not specified above - Describe OTHER Unit 7 Quarters not HU in rooming or boarding house 8 Unit not permanent in transient hotel, motel, etc. 9 Vacant tent site or trailer site 10 Not specified above - Describe

8. Number of housing units in structure (cc 26) (024) 1 1 5 5-9 2 2 6 10 or more 3 3 7 Mobile home or trailer 4 4 8 Only OTHER units

ASK IN EACH HOUSEHOLD 9. (Other than the ... business) does anyone in this household operate a business from this address? (025) 1 No 2 Yes - What kind of business is that?

INTERVIEWER: Enter unrecognizable businesses only

10. Family income (cc 27) (026) 1 Under \$1,000 2 \$1,000 to 1,999 3 2,000 to 2,999 4 3,000 to 3,999 5 4,000 to 4,999 6 5,000 to 5,999 7 6,000 to 7,499 8 7,500 to 9,999 9 10,000 to 11,999 10 12,000 to 14,999 11 15,000 to 19,999 12 20,000 to 24,999 13 25,000 to 49,999 14 50,000 and over

11a. Household members 12 years of age and OVER (027) Total number

b. Household members UNDER 12 years of age (028) Total number 0 None

12. Crime Incident Reports filled (029) Total number - Fill item 31 on Control Card 0 None

13a. Use of telephone (cc 25) (030) Phone in unit (Yes in cc 25a) Phone interview acceptable? (cc 25c or 25d) 1 Yes - SKIP to next applicable item 2 No - Refused number Phone elsewhere (Yes in cc 25b) Phone interview acceptable? (cc 25c or 25d) 3 Yes - SKIP to next applicable item 4 No - Refused number 5 No phone (No in cc 25a and 25b)

13b. Proxy information - Fill for all proxy interviews (1) Proxy interview obtained for line number Proxy respondent name Line number Reason for proxy interview (2) Proxy interview obtained for line number Proxy respondent name Line number Reason for proxy interview

If more than 2 Proxy Interviews, continue in notes.

031 032 033

CENSUS USE ONLY

PERSONAL CHARACTERISTICS

14. NAME (of household respondent) KEYS - BEGIN NEW RECORD

15. TYPE OF INTERVIEW (034) 1 Per - Self-respondent 2 Tel. - Self-respondent 3 Per - Proxy 4 Tel. - Proxy 5 NI - Fill 16-21

16. LINE NO. (cc 12) (035)

17. RELATIONSHIP TO HOUSEHOLD HEAD (cc 13b) (036) 1 Head 2 Wife of head 3 Own child 4 Other relative 5 Non-relative

18. AGE LAST BIRTHDAY (cc 17) (037)

19. MARITAL STATUS (cc 18) (038) 1 M 2 W 3 D 4 Sep 5 NM

20a. RACE (cc 19a) (039) 1 W 2 Neg 3 Ot

20b. ORIGIN (cc 19b) (040) Origin

21. SEX (cc 20) (041) 1 M 2 F

22. ARMED FORCES MEMBER (cc 21) (042) 1 Yes 2 No

23. Education - highest grade (cc 22) (043)

24. Education - complete that year (cc 23) (044) 1 Yes 2 No

CHECK ITEM A Look at item 4 on cover page. Is this the same household as last enumeration? (Box 1 marked) (045) 1 Yes - SKIP to Check Item B 2 No

25a. Did you live in this house on April 1, 1970? (046) 1 Yes - SKIP to Check Item B 2 No

b. Where did you live on April 1, 1970? (State, foreign country, U.S. possession, etc.) (047) State, etc. County

c. Did you live inside the limits of a city, town, village, etc.? (048) 1 No 2 Yes - Name of city, town, village, etc. (Ask males 18+ only)

d. Were you in the Armed Forces on April 1, 1970? (049) 1 Yes 2 No

CHECK ITEM B Is this person 16 years old or older? (050) 1 No - SKIP to 29 2 Yes

26a. What were you doing most of LAST WEEK - (working, keeping house, going to school) or something else? (051) 1 Working - SKIP to 28a 2 With a job but not at work 3 Looking for work 4 Keeping house 5 Going to school 6 Unable to work - SKIP to 26d 7 Retired 8 Other - Specify (If Armed Forces, SKIP to 28a)

b. Did you do any work at all LAST WEEK, not counting work around the house? (Note: If farm or business operator in HH, ask about unpaid work.) (052) 0 No 1 Yes - How many hours? - SKIP to 28a

c. Did you have a job or business from which you were temporarily absent or on layoff LAST WEEK? (053) 1 No 2 Yes - Absent - SKIP to 28a 3 Yes - Layoff - SKIP to 27

26d. Have you been looking for work during the past 4 weeks? (054) 1 Yes No - When did you last work? 2 Less than 5 years ago - SKIP to 28a 3 5 or more years ago 4 Never worked SKIP to 29

27. Is there any reason why you could not take a job LAST WEEK? (055) 1 No 2 Yes - 2 Already had a job 3 Temporary illness 4 Going to school 5 Other - Specify

28a. For whom did you (last) work? (Name of company, business, organization or other employer) (056) X Never worked - SKIP to 29

b. What kind of business or industry is this? (E.g.: TV and radio mfg., retail shoe store, State Labor Department, farm) (057)

c. Were you - (058) 1 An employee of a PRIVATE company, business or individual for wages, salary or commissions? 2 A GOVERNMENT employee (Federal, State, county, or local)? 3 SELF-EMPLOYED in OWN business, professional practice or farm? 4 Working WITHOUT PAY in family business or farm?

d. What kind of work were you doing? (E.g.: electrical engineer, stock clerk, typist, farmer, Armed Forces) (059)

e. What were your most important activities or duties? (E.g.: typing, keeping account books, selling cars, Armed Forces) (060)

Notes

FORM NCS-1 (4-19-77) Page 2

KEYER - BEGIN NEW RECORD

Line number _____

Screen question number _____

Incident number _____

NOTICE - Your report to the Census Bureau is confidential by law (U.S. Code 42, Section 3771). All identifiable information will be used only by persons engaged in and for the purposes of the survey, and may not be disclosed or released to others for any purpose.

FORM NCS-2 (4-19-77)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
ACTING AS COLLECTING AGENT FOR THE
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
U.S. DEPARTMENT OF JUSTICE

CRIME INCIDENT REPORT
NATIONAL CRIME SURVEY - NATIONAL SAMPLE

1a. You said that during the last 6 months - (Refer to appropriate screen question for description of crime). In what month did this/did the first incident happen? (Show flashcard if necessary. Encourage respondent to give exact month.)

Month (01-12) _____ Year 197_____

104 Is this incident report for a series of crimes?
1 No - SKIP to 2
2 Yes - (Note: series must have 3 or more similar incidents which respondent can't recall separately)

105 **CHECK ITEM A**

106 b. In what month(s) did these incidents take place? (Mark all that apply)
1 Spring (March, April, May)
2 Summer (June, July, August)
3 Fall (September, October, November)
4 Winter (December, January, February)

107 c. How many incidents were involved in this series?
1 Three or four
2 Five to ten
3 Eleven or more
4 Don't know

108 **INTERVIEWER:** If this report is for a series, read the following statement. (The following questions refer only to the most recent incident.)
2. About what time did (this/the most recent) incident happen?
1 Don't know
2 During the day (6 a.m. to 6 p.m.)
At night (6 p.m. to 6 a.m.)
3 6 p.m. to midnight
4 Midnight to 6 a.m.
5 Don't know

3a. In what State and county did this incident occur?
 Outside U.S. - END INCIDENT REPORT
State _____ County _____

110 b. Did it happen INSIDE THE LIMITS of a city, town, village, etc.?
1 No
2 Yes - Enter name of city, town, etc. _____

111

112 4. Where did this incident take place?
1 At or in own dwelling, in garage or other building on property (Includes break-in or attempted break-in) } SKIP to 6a
2 At or in a vacation home, hotel/motel } ASK 5a
3 Inside commercial building such as store, restaurant, bank, gas station, public conveyance or station }
4 Inside office, factory, or warehouse }
5 Near own home: yard, sidewalk, driveway, carport, apartment hall (Does not include break-in or attempted break-in) } SKIP to Check Item B
6 On the street, in a park, field, playground, school grounds or parking lot }
7 Inside school }
8 Other - Specify _____

5a. Were you a customer, employee, or owner?
1 Customer
2 Employee
3 Owner
4 Other - Specify _____

113

114 b. Did the person(s) steal or TRY to steal anything belonging to the store, restaurant, office, factory, etc.?
1 Yes } SKIP to Check Item B
2 No }
3 Don't know }

6a. Did the offender(s) live there or have a right to be there, such as a guest or a workman?
1 Yes - SKIP to Check Item B
2 No
3 Don't know

115

116 b. Did the offender(s) actually get in or just TRY to get in the building?
1 Actually got in
2 Just tried to get in
3 Don't know

117 c. Was there any evidence, such as a broken lock or broken window, that the offender(s) forced his way in/TRIED to force his way in) the building?
1 No
2 Yes - What was the evidence? Anything else? (Mark all that apply)
2 Broken lock or window } SKIP to Check Item B
3 Forced door or window }
4 Slashed screen }
5 Other - Specify _____

118 d. How did the offender(s) get in/try to get in?
1 Through unlocked door or window
2 Had key
3 Don't know
4 Other - Specify _____

119 **CHECK ITEM B**
Was respondent or any other member of this household present when this incident occurred? (If not sure, ASK)
1 No - SKIP to 13a
2 Yes

120 7a. Did the person(s) have a weapon such as a gun or knife, or something he was using as a weapon, such as a bottle, or wrench?
1 No
2 Don't know
Yes - What was the weapon? Anything else? (Mark all that apply)
3 Gun
4 Knife
5 Other - Specify _____

121 b. Did the person(s) hit you, knock you down, or actually attack you in any way?
1 Yes - SKIP to 7f
2 No

122 c. Did the person(s) threaten you with harm in any way?
1 No - SKIP to 7e
2 Yes

CRIME INCIDENT QUESTIONS - Continued

7d. How were you threatened? Any other way? (Mark all that apply)
1 Verbal threat of rape
2 Verbal threat of attack other than rape
3 Weapon present or threatened with weapon } SKIP to 10a
4 Attempted attack with weapon (for example, shot at)
5 Object thrown at person
6 Followed, surrounded
7 Other - Specify _____

9c. Did insurance or any health benefits program pay for all or part of the total medical expenses?
1 Not yet settled } SKIP to 10a
2 None
3 All
4 Part

133

d. How much did insurance or a health benefits program pay?
134 \$ _____ 00 (Obtain an estimate, if necessary)

10a. Did you do anything to protect yourself or your property during the incident?
1 No - SKIP to 11
2 Yes

135

b. What did you do? Anything else? (Mark all that apply)
1 Used brandished gun or knife
2 Used tried physical force (hit, chased, threw object, used other weapon, etc.) } SKIP to 10a
3 Tried to get help, attract attention, scare offender away (screamed, yelled, called for help, turned on lights, etc.)
4 Threatened, argued, reasoned, etc., with offender
5 Resisted without force, used evasive action (ran drove away, hid, held property, locked door, ducked, shielded self, etc.)
6 Other - Specify _____

136

11. Was the crime committed by only one or more than one person?
1 Only one } SKIP to 12a
2 Don't know }
3 More than one }

137

a. Was this person male or female?
1 Male } SKIP to 12a
2 Female }
3 Don't know }

138

b. How old would you say the person was?
1 Under 12
2 12-14
3 15-17
4 18-20
5 21 or over
6 Don't know

139

c. Was the person someone you knew or was he a stranger?
1 Stranger } SKIP to 12a
2 Don't know }
3 Known by sight only }
4 Casual acquaintance }
5 Well known }

140

d. Was the person a relative of yours?
1 No } SKIP to 12a
2 Spouse or ex-spouse }
3 Parent }
4 Own child }
5 Brother or sister }
6 Other relative - Specify _____

141

e. Was he/she -
1 White } SKIP to 12a
2 Negro }
3 Other? - Specify _____ }
4 Don't know }

142

8a. What were the injuries you suffered, if any? Anything else? (Mark all that apply)
1 None - SKIP to 10a
2 Raped
3 Attempted rape
4 Knife or gunshot wounds
5 Broken bones or teeth knocked out
6 Internal injuries, knocked unconscious
7 Bruises, black eye, cuts, scratches, swelling
8 Other - Specify _____

126

b. Were you injured to the extent that you needed medical attention after the attack?
1 No - SKIP to 10a
2 Yes

127

c. Did you receive any treatment at a hospital?
1 No } SKIP to 10a
2 Emergency room treatment only }
3 Stayed overnight or longer - How many days? _____ }

128

d. What was the total amount of your medical expenses resulting from this incident, INCLUDING anything paid by insurance? Include hospital and doctor bills, medicine, therapy, braces, and any other injury-related medical expenses. INTERVIEWER - If respondent does not know exact amount, encourage him to give an estimate.
1 No cost - SKIP to 10a
2 _____ 00
3 Don't know

129

9a. At the time of the incident, were you covered by any medical insurance, or were you eligible for benefits from any other type of health benefits program, such as Medicaid, Veterans' Administration, or Public Welfare?
1 No } SKIP to 10a
2 Don't know }
3 Yes }

130

b. Did you file a claim with any of these insurance companies or programs in order to get part or all of your medical expenses paid?
1 No - SKIP to 10a
2 Yes

131

f. How did the person(s) attack you? Any other way? (Mark all that apply)
1 Raped
2 Tried to rape
3 Hit with object held in hand, shot, knifed
4 Hit by thrown object
5 Hit, slapped, knocked down
6 Grabbed, held, tripped, jumped, pushed, etc.
7 Other - Specify _____

125

g. Were they male or female?
1 All male } SKIP to 12a
2 All female }
3 Male and female }
4 Don't know }

143

h. How old would you say the youngest was?
1 Under 12
2 12-14
3 15-17
4 18-20
5 21 or over
6 Don't know

144

i. How old would you say the oldest was?
1 Under 12
2 12-14
3 15-17
4 18-20
5 21 or over
6 Don't know

145

j. Were any of the persons known or related to you or were they all strangers?
1 All strangers } SKIP to 12a
2 Don't know }
3 All relatives }
4 Some relatives }
5 All known }
6 Some known }

146

k. How well were they known? (Mark all that apply)
1 By sight only } SKIP to 12a
2 Casual acquaintance(s) }
3 Well known }

147

l. How were they related to you? (Mark all that apply)
1 Spouse or ex-spouse }
2 Parents }
3 Own children }
4 Brothers sisters }
5 Other - Specify _____ }

148

m. Were all of them -
1 White }
2 Negro }
3 Other? - Specify _____ }
4 Combination - Specify _____ }
5 Don't know }

149

150

CRIME INCIDENT QUESTIONS - Continued

12a. Were you the only person there besides the offender(s)?
 (151) 1 Yes - SKIP to 13a
 2 No

b. How many of these persons, not counting yourself, were robbed, harmed, or threatened? Do not include persons under 12 years of age.
 (152) 0 None - SKIP to 13a
 _____ Number of persons

c. Are any of these persons members of your household now? Do not include household members under 12 years of age.
 (153) 0 No
 Yes - How many, not counting yourself?

 (ALSO MARK "YES" IN CHECK ITEM I ON PAGE 12)

13a. Was something stolen or taken without permission that belonged to you or others in the household?
 INTERVIEWER - Include anything stolen from unrecognizable business in respondent's home. Do not include anything stolen from a recognizable business in respondent's home or another business, such as merchandise or cash from a register.
 (154) 1 Yes - SKIP to 13f
 2 No

b. Did the person(s) ATTEMPT to take something that belonged to you or others in the household?
 (155) 1 No - SKIP to 13e
 2 Yes

c. What did they try to take? Anything else? (Mark all that apply)
 (156) 1 Purse
 2 Wallet or money
 3 Car
 4 Other motor vehicle
 5 Part of car (hubcap, tape-deck, etc.)
 6 Don't know
 7 Other - Specify _____

Did they try to take a purse, wallet, or money? (Box 1 or 2 marked in 13c)
 CHECK ITEM C No - SKIP to 18a
 Yes

d. Was the (purse/wallet/money) on your person, for instance in a pocket or being held?
 (157) 1 Yes } SKIP to 18a
 2 No

e. What did happen? Anything else? (Mark all that apply)
 (158) 1 Attacked
 2 Threatened with harm
 3 Attempted to break into house or garage
 4 Attempted to break into car
 5 Harassed, argument, abusive language
 6 Damaged or destroyed property
 7 Attempted or threatened to damage or destroy property
 8 Other - Specify _____ } SKIP to 18a

f. What was taken that belonged to you or others in the household? Anything else?
 (159) Cash: \$ _____ 00
 and/or
 Property: (Mark all that apply)
 (160) 0 Only cash taken - SKIP to 14c
 1 Purse
 2 Wallet
 3 Car
 4 Other motor vehicle
 5 Part of car (hubcap, tape-deck, etc.)
 6 Other - Specify _____

Was a car or other motor vehicle taken? (Box 3 or 4 marked in 13f)
 CHECK ITEM D No - SKIP to Check Item E
 Yes

14a. Had permission to use the (car/motor vehicle) ever been given to the person who took it?
 (161) 1 No } SKIP to Check Item E
 2 Don't know
 3 Yes

b. Did the person return the (car/motor vehicle)?
 (162) 1 Yes
 2 No

Is Box 1 or 2 marked in 13f?
 CHECK ITEM E No - SKIP to 15a
 Yes

c. Was the (purse/wallet/money) on your person, for instance, in a pocket or being held by you when it was taken?
 (163) 1 Yes
 2 No

Was only cash taken? (Box 0 marked in 13f)
 CHECK ITEM F Yes - SKIP to 16a
 No

15a. Altogether, what was the value of the PROPERTY that was taken?
 INTERVIEWER - Exclude stolen cash, and enter \$0 for stolen checks and credit cards, even if they were used.
 (164) \$ _____ 00

b. How did you decide the value of the property that was stolen? Any other way? (Mark all that apply)
 (165) 1 Original cost
 2 Replacement cost
 3 Personal estimate of current value
 4 Insurance report estimate
 5 Police estimate
 6 Don't know
 7 Other - Specify _____

16a. Was all or part of the stolen money or property recovered, not counting anything received from insurance?
 (166) 1 None } SKIP to 17a
 2 All
 3 Part

b. What was recovered? Anything else?
 (167) Cash \$ _____ 00
 and/or
 Property: (Mark all that apply)
 (168) 0 Cash only recovered - SKIP to 17a
 1 Purse
 2 Wallet
 3 Car
 4 Other motor vehicle
 5 Part of car (hubcap, tape-deck, etc.)
 6 Other - Specify _____

c. What was the value of the property recovered (excluding recovered cash)?
 (169) \$ _____ 00

CRIME INCIDENT QUESTIONS - Continued

17a. Was there any insurance against theft?
 (170) 1 No } SKIP to 18a
 2 Don't know
 3 Yes

b. Was this loss reported to an insurance company?
 (171) 1 No } SKIP to 18a
 2 Don't know
 3 Yes

c. Was any of this loss recovered through insurance?
 (172) 1 Not yet settled } SKIP to 18a
 2 No
 3 Yes

d. How much was recovered?
 INTERVIEWER - If property replaced by insurance company instead of cash settlement, ask for estimate of value of the property replaced.
 (173) \$ _____ 00

18a. Did any household member lose any time from work because of this incident?
 (174) 0 No - SKIP to 19a
 Yes - How many members? _____

b. How much time was lost altogether?
 (175) 1 Less than 1 day
 2 1-5 days
 3 6-10 days
 4 Over 10 days
 5 Don't know

19a. Was anything that belonged to you or other members of the household damaged but not taken in this incident? For example, was a lock or window broken, clothing damaged, or damage done to a car, etc?
 (176) 1 No - SKIP to 20a
 2 Yes

b. (Was/were) the damaged item(s) repaired or replaced?
 (177) 1 Yes - SKIP to 19d
 2 No

c. How much would it cost to repair or replace the damaged item(s)?
 (178) \$ _____ 00 } SKIP to 20a
 x Don't know

d. How much was the repair or replacement cost?
 (179) x No cost or don't know - SKIP to 20a
 \$ _____ 00

e. Who paid or will pay for the repairs or replacement? Anyone else? (Mark all that apply)
 (180) 1 Household member
 2 Landlord
 3 Insurance
 4 Other - Specify _____

20a. Were the police informed of this incident in any way?
 (181) 1 No
 2 Don't know - SKIP to Check Item G
 Yes - Who told them?
 3 Household member } SKIP to Check Item G
 4 Someone else
 5 Police on scene

b. What was the reason this incident was not reported to the police? Any other reason? (Mark all that apply)
 (182) 1 Nothing could be done - lack of proof
 2 Did not think it important enough
 3 Police wouldn't want to be bothered
 4 Did not want to take time - too inconvenient
 5 Private or personal matter, did not want to report it
 6 Did not want to get involved
 7 Afraid of reprisal
 8 Reported to someone else
 9 Other - Specify _____

Is this person 16 years or older?
 CHECK ITEM G No - SKIP to Check Item H
 Yes - ASK 21a

21a. Did you have a job at the time this incident happened?
 (183) 1 No - SKIP to Check Item H
 2 Yes

b. What was the job?
 (186) 1 Same as described in NCS-1 items 28a-e - SKIP to Check Item H
 2 Different than described in NCS-1 items 28a-e

c. For whom did you work? (Name of company, business, organization or other employer)

d. What kind of business or industry is this? (For example: TV and radio mfg., retail shoe store, State Labor Dept., farm)
 (187) _____

e. Were you -
 (188) 1 An employee of a PRIVATE company, business or individual for wages, salary or commissions?
 2 A GOVERNMENT employee (Federal, State, county or local)?
 3 SELF-EMPLOYED in OWN business, professional practice or farm?
 4 Working WITHOUT PAY in family business or farm?

f. What kind of work were you doing? (For example: electrical engineer, stock clerk, typist, farmer)
 (189) _____

g. What were your most important activities or duties? (For example: typing, keeping account books, selling cars, finishing concrete, etc.)

Summarize this incident or series of incidents.
 CHECK ITEM H _____

Look at 12c on Incident Report, Is there an entry for "How many?"
 CHECK ITEM I No
 Yes - Be sure you have an Incident Report for each HH member 12 years of age or over who was robbed, harmed, or threatened in this incident.

Is this the last Incident Report to be filled for this person?
 CHECK ITEM J No - Go to next Incident Report.
 Yes - Is this the last HH member to be interviewed?
 No - Interview next HH member.
 Yes - END INTERVIEW. Enter total number of Crime Incident Reports filled for this household in Item 12 on the cover of NCS-1.

Appendix B

Neighborhood Characteristics

Table B1 Bureau of Census definitions of selected neighborhood characteristics

Economic Status	$\frac{\text{Families with less than \$5,000 family income}}{\text{Total families}}$
Unemployment	$\frac{\text{Unemployed persons 16 years old and over}}{\text{Total civilian labor force 16 years old and over}}$
Racial Composition	$\frac{\text{Black population}}{\text{Total population}}$
Residential Mobility	$\frac{\text{Persons 5 and over living in same house as five years ago}}{\text{Total persons 5 years old and over}}$
Structural Density	$\frac{\text{Units in structures of 5 or more units}}{\text{Total units (year round)}}$

Table B2 Measures of association between selected neighborhood characteristics (gamma and Somer's D symmetric), NCS national data, 1973

Neighborhood Characteristics	Economic Status	Percent Unemployed	Percent Black	Residential Mobility	Structural Density
Economic Status	-	-.52 ^a -.20 ^b	-.49 -.20	.00 .00	.11 .04
Percent Unemployed		-	.22 .09	.10 .04	.07 .03
Percent Black			-	.13 .05	.09 .04
Residential Mobility				-	.41 .16
Structural Density					-

^aGamma

^bSomer's D

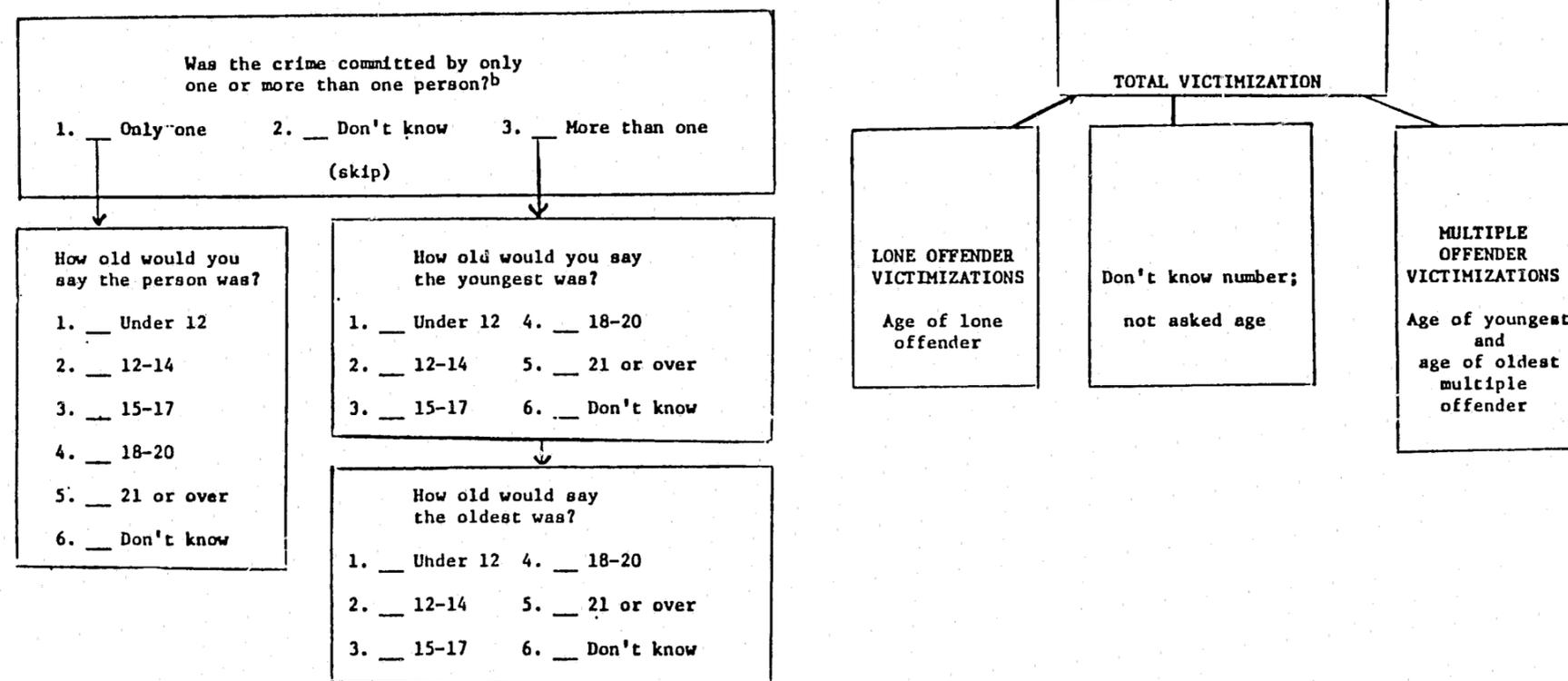
Appendix C

Offender Age in National Crime Survey Data

In the National Crime Survey victims are asked several questions designed to yield information about characteristics of their offenders. Among these questionnaire items, specific questions deal with the victim's perception of the age of the offender(s). The victimization survey data collected in response to these offender age questions provide an opportunity to examine variations in criminal victimizations committed by offenders perceived by their victims to be under 18 years old (juveniles), 18 to 20 years old (youthful offenders), or 21 or older (adults). This appendix provides explanation of and documentation for the various offender age variables which were created and used in this report and its companion reports in this series.

In order to fully understand the nature of the offender age data obtained in the National Crime Survey it is necessary to review the questions asked of survey respondents who were victimized in face-to-face encounters. Figure C1 illustrates these questions. The first question asked about offender characteristics is whether the crime was committed by only one or more than one person. If the victim reports that there was only one offender, he or she is asked the age of the lone offender. If more than one offender was involved, the victim is asked to report both the age of the youngest of the multiple offenders and the age of the oldest of the multiple offenders.

Figure C1 Offender age questions in the National Crime Survey^a



^aSee Appendix A: National Crime Survey Household Interview Questionnaire, Incident Report, questions 11, 11b, 11h, and 11i, and in other volumes of this series, National Crime Survey Commercial Interview Questionnaire, Incident Report, questions 6a, 6b, 6e, and 6f.

^bThis question is different in the commercial surveys. See incident question 6a.

Several important considerations emerge from an examination of Figure C1. First, "don't know" offender age responses are obtained from two groups of victims. One group is those who did not know whether the crime was committed by one or more than one offender. Generally, this group does not constitute a large proportion of the total victims. For example, in the NCS national sample for the years 1973 to 1977, in about 6 percent of the total personal victimizations (including rape, robbery, the assaults, and personal larceny) the victim did not know whether one or more than one offender was involved. The second group consists of victims who knew whether there was one or more than one offender, but did not know the offender's age. For this reason, in an additional 4 percent of the incidents the age of the offender was not ascertained.

Second, because victims of more than one offender (multiple offenders) are asked to report both the ages of the youngest and the oldest of multiple offenders, the survey data have three major offender age variables: 1) the perceived age of the lone offender, 2) the perceived age of the youngest of multiple offenders, and 3) the perceived age of the oldest of multiple offenders.

Third, the NCS interview schedules produce rather fine offender age categories only for offenders perceived to be less than 21 years old. From the victims response, the interviewer records the offender age as under 12 years old, 12 to 14, 15 to 17, 18 to 20, or 21 or older. This means that detailed offender age information is available only for victimizations committed by offenders perceived to be less than 21 years old. In the analyses in this report, offenders perceived by their victims to be under 18 years old are juveniles, those perceived to be between 18 and 20 years old are youthful offenders, and those perceived to be 21 or older are adults.

Table C1 shows the offender age variables that were used in the analysis for this report. Variables A, B, and C are the three major offender age variables in the NCS data: detailed age of lone offender, detailed age of the youngest of multiple offenders, and detailed age of the oldest of multiple offenders. Variables AA, BB, CC are ordinary recodes of these variables; they simply categorize together all offenders perceived to be under 18 years old.

The primary focus of much of the analysis in this report is on the incidents of victimization by juveniles, youthful offenders, and adults. Therefore it was necessary to create an offender age variable that would express the percent of the total victimizations (minus the small percentage in which the victim did not know whether there was one or more than one offender) attributable to offenders in different age categories, regardless of whether the incident involved lone or multiple offenders. To do this, variable D was created from variables A (detailed age of lone offender) and C (detailed age of oldest multiple offender) in the following manner:

Condition		Value
If A=1, under 12 <u>or</u> if C=1, under 12	then	D=1, under 12
If A=2, 12-14 <u>or</u> if C=2, 12-14	then	D=2, 12-14
If A=3, 15-17 <u>or</u> if C=3, 15-17	then	D=3, 15-17
If A=4, 18-20 <u>or</u> if C=4, 18-20	then	D=4, 18-20
If A=5, 21 or older <u>or</u> if C=5, 21 or older	then	D=5, 21 or older
If A=6, Don't know age <u>or</u> if C=6, Don't know age	then	D=6, Don't know age

Thus, when variable D (see Table C1) has the value of "1", under 12, this includes all lone offender victimizations committed by offenders perceived to be under 12 years old, plus all multiple offender victimizations in which the oldest of the multiple offenders was perceived to be under 12 years old. Variable D makes possible an examination of victimizations committed by offenders in various age groups, whether the incident involved only one or more than one offender. Variable DD is an ordinary recode of the detailed age of offender into juveniles (under 18), youthful offenders (18 to 20), and adults (21 or older).

The detailed age of the oldest of multiple offenders (variable C), rather than the detailed age of the youngest of multiple offenders (variable B) was used to create variable D in order to insure that the perceived age of all offenders in any given offender age category did not exceed the upper limit of the age category. This is because there are some incidents in which the age composition of the multiple offender group is varied (e.g., the youngest might be 14 and the oldest might be 18). Table C2 shows that a mixed-age multiple offender group was reported in fewer than one out of three multiple offender victimizations. In two-thirds of the multiple offender victimizations the youngest and oldest multiple offenders were both perceived to be in the same age category. (Both under 18, 28 percent; both 18 to 20, 10 percent; and both 21 or older, 28 percent.)

Because of the mixed-age multiple offender groups, in order to guarantee that no category of the detailed age of offender variable would include incidents that involved multiple offenders older than the upper limit of the category specified, it was necessary to use the age of the oldest of multiple offenders. However, because the majority of multiple offender incidents involved same-age offenders, the results of the analysis would

Table C1 Offender age variables

Variable name	Values
A. Detailed age of lone offender	1=Under 12, 2=12-14, 3=15-17, 4=18-20, 5=21 or older, 6=Don't know
B. Detailed age of youngest multiple offender	1=Under 12, 2=12-14, 3=15-17, 4=18-20, 5=21 or older, 6=Don't know
C. Detailed age of oldest multiple offender	1=Under 12, 2=12-14, 3=15-17, 4=18-20, 5=21 or older, 6=Don't know
D. Detailed age of offender ^a	1=Under 12, 2=12-14, 3=15-17, 4=18-20, 5=21 or older, 6=Don't know
AA. Age of lone offender	1=Under 18, 2=18-20, 3=21 or older, 4=Don't know
BB. Age of youngest multiple offender	1=Under 18, 2=18-20, 3=21 or older, 4=Don't know
CC. Age of oldest multiple offender	1=Under 18, 2=18-20, 3=21 or older, 4=Don't know
DD. Age of offender ^a	1=Under 18, 2=18-20, 3=21 or older, 4=Don't know

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

Table C2 Ages of youngest and oldest multiple offenders in personal victimization, NCS national data, 1973-1977 aggregate^a

Ages of youngest and oldest multiple offender	Percent	Estimated number of victimizations
Both under 18	27.9)	2,821,802
Both 18 to 20	9.6 } 65.3	972,372
Both 21 or older	27.8 }	2,810,194
Youngest under 18/oldest 18 to 20	11.3 }	1,140,592
Youngest under 18/oldest 21 or older	5.7 } 28.3	574,249
Youngest 18 to 20/oldest 21 or older	11.3 }	1,141,134
Error cases ^b	0.2	18,068
Don't know age ^c	6.2	632,558
Total	100.0	10,110,969

^aThis table excludes incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender. Also excluded are lone offender victimizations.

^bIn a few cases the youngest offender was recorded in the interview as older than the oldest offender.

^cDon't know age of youngest, age of oldest, or both.

not differ substantially if the age of the youngest multiple offender had been used in variable D.

Accuracy of Victims' Perceptions of Offenders' Characteristics

Most of the analyses in this monograph depend upon the ability of victims to make at least crude distinctions among offenders of different age groups; to a more limited extent, there is also a dependence upon the victims' ability to make distinctions between offenders of different sexes and races. The research literature that exists in this area is limited almost exclusively to questions relating to the accuracy of victim and witness recall of offender identity (e.g., ability to pick the offender out of a lineup) and descriptions of what transpired during the event, rather than to questions about the offender's basic demographic characteristics such as age, sex, and race. Most of this research involves simulations or staged "crimes," often in front of groups of observers such as college students.¹ Although this research suggests that eye witness testimony regarding the identity of the actors involved and what transpired during the event are subject to substantial error, the research provides virtually no information about the ability of victims to report accurately about offenders' ages, sexes, and races. Presumably it is much less difficult for a victim simply to report these basic demographic characteristics than it is for a victim to identify a specific "offender" from among a "lineup" group of persons selected for inclusion in the lineup because they are demographically similar to each other. Because the available research literature did not shed much light on the accuracy of victims' perceptions of offenders' ages, sexes, and races, an attempt was made to study a sample of victims' reports of suspect characteristics (age, sex, and race) made at the time that the police took the offense report and the characteristics of arrestees who were subsequently

arrested for these crimes. The data below are for rapes and attempted rapes reported to the police in New York City between 1974 and 1977.²

Of the three demographic characteristics -- age, race, and sex -- age is probably the most difficult for victims to estimate accurately. Table C3 shows a tabulation of suspect's age group as perceived by the victim at the time that the rape or attempted rape offense report was filed, and the arrestee's age group -- as determined from the arrestee's birth date -- as shown on the police arrest report. Suspect ages were reported for more than twelve thousand suspects and were reported as "don't know" for about nine hundred suspects. For most suspects (more than 8,000 out of 13,000), no arrest was made. Of those suspects for whom an arrest was made, the perceived age group and the arrest report age group are remarkably close. For example, of those arrested suspects perceived by the victim to have been under 14 years old, arrest records showed that 97 percent were actually under 14. For those suspects perceived to be 14 to 19, 95 percent of the arrestees were 14 to 19. In fact, for no suspect age group is the victims' accuracy rate less than 89 percent. The overall ordinal measure of association (Somers' d) between suspect and arrestee's age for arrested rapists is .95.

The age groups for those under 21 are somewhat cruder, and those over 21 are finer, than in the NCS data. Nonetheless, the agreement between victims' perceptions and arrestees' actual ages is remarkable. It is important to note parenthetically that the strength of this relationship does not diminish appreciably when only the victims and offenders who were strangers to each other are included in the analysis.

Because of the sexual nature of the offense of rape, the information on the correspondence between the suspect's and arrestee's sex is of limited

Table C3 Correspondence Between Age of Suspect as Reported by Victim and Age of Arrestee as Shown on Police Arrest Records, New York City Rapes and Attempted Rapes, 1974-1977

Suspect's Age	Arrestee's Age								No arrest	Total
	Under 14	14-19	20-24	25-29	30-34	35-39	40-45	Over 45		
Under 14	97.1 ^a (169)	2.9 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	-- (76) ^b	100 (174) ^c
14-19	.6 (6)	95.7 (997)	2.7 (28)	.8 (8)	.2 (2)	0 (0)	0 (0)	.1 (1)	-- (1,224) ^b	100 (1,042) ^c
20-24	.2 (2)	5.4 (56)	89.3 (930)	3.8 (40)	.9 (9)	.3 (3)	0 (0)	.1 (1)	-- (2,196) ^b	100 (1,041) ^c
25-29	.1 (1)	1.1 (11)	5.3 (55)	90.0 (933)	2.4 (25)	.8 (8)	.3 (3)	.1 (1)	-- (1,945) ^b	100 (1,037) ^c
30-34	0 (0)	.5 (3)	1.9 (12)	4.1 (26)	90.4 (577)	1.9 (12)	1.1 (7)	.2 (1)	-- (1,055) ^b	100 (638) ^c
35-39	0 (0)	0 (0)	.9 (4)	1.8 (8)	2.9 (13)	89.4 (397)	3.2 (14)	1.8 (8)	-- (533) ^b	100 (444) ^c
40-45	0 (0)	.7 (2)	.3 (1)	.3 (1)	2.0 (6)	2.0 (6)	91.1 (278)	3.6 (11)	-- (294) ^b	100 (305) ^c
Over 45	0 (0)	.7 (2)	0 (0)	.7 (2)	.3 (1)	.3 (1)	2.1 (6)	95.8 (276)	-- (182) ^b	100 (288) ^c
Don't Know	4.4 (2)	21.7 (10)	13.0 (6)	26.1 (12)	15.2 (7)	4.4 (2)	8.7 (4)	6.5 (3)	-- (848) ^b	100 (46) ^c

^aRow percent.

^b"No Arrests" excluded from row percent.

^cExcludes "No Arrests."

value, but it is shown in Table C4. Of those suspects reported by victims to have been males and for whom an arrest was made, virtually all of them (99.8 percent) were male as judged from the police arrest report; of the 34 suspects reported by victims to have been females and for whom an arrest was made, 24 were female as judged by police arrest reports. The measure of association, phi -- the magnitude of which is severely limited owing to the extreme skewness of the sex distributions of suspects and arrestees -- is .73.

The last characteristic to be examined is race/ethnicity (Table C5). The race/ethnicity categories used here are finer than are those available in the NCS data, and hence provide a stricter test of the ability of victims to report on arrestees' race/ethnicity. Consistent with the age data, these data show that victim's reports of suspects' race/ethnicity are in close agreement with the arrest report data. The agreement is .95 as judged by the nominal measure of association lambda.

Of particular interest in connection with Table C5 is that according to Census Bureau procedures Hispanics are counted as white for purposes of racial classification. Hence in the NCS data, Anglo and Hispanic offenders are not categorized separately (see data collection instrument, Appendix A). It is possible that some victims perceive Hispanics as blacks and/or vice-versa. It is important to note that very few victims misperceive Hispanics as blacks or blacks as Hispanics. Thus, from the New York City rape data this does not appear to be a significant source of measurement error.

These data regarding victims' ability to report on offenders' demographic characteristics are very encouraging. Although future research will have to sample a broader range of crimes and locales, the data suggest that some confidence in victims' reports of offenders' ages, races, and sexes, appears justified at this time.

Table C4 Correspondence Between Sex of Suspect As Reported by Victim and Sex of Arrestee As Shown on Police Arrest Records, New York City Rapes and Attempted Rapes, 1974-1977

Suspect's Sex	Arrestee's Sex		No Arrest	Total
	Male	Female		
Male	99.8 ^a (5,034)	.2 (8)	— (8,240) ^b	100 (5,042) ^c
Female	29.4 (10)	70.6 (24)	— (52) ^b	100 (34) ^c

^aRow percent.

^b"No Arrests" excluded from row percents.

^cExcludes "No Arrests."

Table C5 Correspondence Between Race of Suspect As Reported by Victim and Race of Arrestee as Shown on Police Arrest Records, New York City Rapes and Attempted Rapes, 1974-1977

Suspect's Race	Arrestee's Race					No Arrest	Total
	White	Black	Hispanic	Oriental	Other		
White	96.1 ^a (597)	1.0 (6)	2.9 (18)	0 (0)	0 (0)	-- (1,244) ^b	100 (621) ^c
Black	.2 (7)	98.9 (3,179)	.8 (26)	0 (1)	0 (0)	-- (5,394) ^b	100 (3,213) ^c
Hispanic	.6 (7)	1.6 (19)	97.7 (1,167)	.1 (1)	0 (0)	-- (1,550) ^b	100 (1,194) ^e
Oriental	9.1 (1)	0 (0)	9.1 (1)	81.8 (9)	0 (0)	-- (28) ^b	100 (11) ^c
Other	0 (0)	7.7 (1)	23.1 (3)	0 (0)	69.2 (9)	-- (16) ^b	100 (13) ^c
Don't Know	33.3 (1)	0 (0)	66.7 (2)	0 (0)	0 (0)	-- (81) ^b	100 (84) ^c

^aRow percent.

^b"No Arrests" excluded from row percents.

^cExcludes "No Arrests."

NOTES

¹See for example Buckhout (1974), Note (1977), Duncan (1976), Leippe, Wells, Ostrom (1978), Clifford and Scott (1978), and Kuehn (1974).

²We are grateful to Dennis Butler of the New York City Police Department for making available these data from his current comprehensive study of rape.

Appendix D

Rates of Victimization and Offending
Based Solely on "At or Near Home" Incidents

Table D1 Estimated annual rates of victimization in total personal crimes which occurred "at or near home" (per 100,000 persons in each population subgroup), by age of victim, extent of urbanization, and neighborhood economic status, NCS national data, 1973-1978 aggregate

Age of victim and extent of urbanization	Economic Status (Percent of total families with less than \$5,000 family income)		
	Low (27-99)	Medium (11-26)	High (0-10)
	12 to 17:		
SMSA Central Cities	1,102 (1,684,208) ^a	901 (2,884,244)	769 (1,401,189)
Balance of SMSA	604 (663,613)	672 (3,579,145)	517 (4,543,019)
Areas Outside of SMSA	382 (3,657,983)	422 (3,331,543)	838 (446,208)
18 to 20:			
SMSA Central Cities	2,004 (987,977)	1,551 (1,650,441)	1,032 (672,731)
Balance of SMSA	1,007 (399,611)	1,365 (1,697,358)	1,013 (1,914,155)
Areas Outside of SMSA	922 (1,641,751)	846 (1,768,111)	1,265 (172,999)
21 or older:			
SMSA Central Cities	1,685 (8,929,505)	923 (19,352,276)	526 (8,707,118)
Balance of SMSA	975 (3,855,735)	690 (18,994,902)	421 (21,432,305)
Areas Outside of SMSA	469 (19,231,335)	475 (17,501,182)	280 (2,089,002)
Total:			
SMSA Central Cities	1,627 (11,601,690)	963 (23,886,961)	589 (10,781,038)
Balance of SMSA	927 (4,908,959)	734 (24,271,405)	477 (27,889,479)
Areas Outside of SMSA	486 (24,531,069)	496 (22,600,836)	434 (2,708,209)

^aSix year average estimated number of persons in the population.

Table D2 Estimated annual rates of victimization in personal crimes which occurred "at or near home" (per 100,000 persons in each population subgroup), by age of victim, type of crime,^a and neighborhood unemployment, NCS national data, 1973-1978 aggregate

Age of victim and type of crime	Unemployment (Percent of total civilian labor force 16 years old and over which is unemployed)		
	Low (0-2)	Medium (3-5)	High (6-99)
	12 to 17:	(4,714,881) ^b	(11,278,233)
Theft	55	62	104
Violent	447	525	678
18 to 20:	(2,205,904)	(5,646,588)	(3,052,643)
Theft	128	157	275
Violent	884	972	1,199
21 or older:	(25,689,586)	(62,669,028)	(31,734,746)
Theft	100	128	234
Violent	374	478	745
Total:	(32,610,371)	(79,593,849)	(40,985,425)
Theft	95	120	217
Violent	419	519	768

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

Table D3 Estimated annual rates of victimization in personal crimes which occurred "at or near home" (per 100,000 persons in each population subgroup), by age of victim, type of crime,^a and neighborhood racial composition, NCS national data, 1973-1978 aggregate

Age of victim and type of crime	Racial Composition			
	(Percent Black)			
	0	1-5	6-59	60-100
12 to 17:	(10,322,582) ^b	(5,584,291)	(4,726,664)	(1,557,612)
Theft	58	72	64	191
Violent	467	541	631	900
18 to 20:	(4,690,708)	(3,192,046)	(2,296,716)	(725,665)
Theft	138	172	191	515
Violent	937	1,003	1,051	1,498
21 or older:	(56,233,437)	(32,065,537)	(24,989,416)	(6,804,971)
Theft	77	129	226	566
Violent	424	507	609	1,155
Total:	(71,246,727)	(40,841,874)	(32,012,796)	(9,088,248)
Theft	78	124	199	497
Violent	464	550	643	1,138

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

Table D4 Estimated annual rates of victimization in personal crimes which occurred "at or near home" (per 100,000 persons in each population subgroup), by age of victim, type of crime,^a and neighborhood residential mobility, NCS national data, 1973-1978 aggregate

Age of victim and type of crime	Residential Mobility		
	(Percent of total persons 5 years old and over living in same house as 5 years ago)		
	Low (63-99)	Medium (47-62)	High (0-46)
12 to 17:	(5,631,450) ^b	(11,093,404)	(5,466,294)
Theft	30	58	141
Violent	369	555	738
18 to 20:	(2,410,921)	(5,011,428)	(3,482,785)
Theft	90	167	288
Violent	585	979	1,485
21 or older:	(29,691,475)	(59,538,941)	(30,862,942)
Theft	113	136	210
Violent	357	502	758
Total:	(37,733,846)	(75,643,773)	(39,812,021)
Theft	99	126	207
Violent	373	541	818

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

Table D5 Estimated annual rates of victimization in personal crimes which occurred "at or near home" (per 100,000 persons in each population subgroup), by age of victim, type of crime,^a and neighborhood structural density, NCS national data, 1973-1978 aggregate

Age of victim and type of crime	Structural Density (Percent of total units in structures of 5 or more units)		
	Low (0)	Medium (1-11)	High (12-99)
	12 to 17:	(4,931,583) ^b	(11,666,640)
Theft	36	67	116
Violent	394	531	731
18 to 20:	(1,927,544)	(5,393,952)	(3,583,638)
Theft	23	174	286
Violent	801	887	1,333
21 or older:	(22,666,487)	(60,757,546)	(36,669,327)
Theft	81	96	282
Violent	372	471	714
Total: ^e	(29,525,614)	(77,818,138)	(45,845,891)
Theft	69	97	262
Violent	403	508	764

^aTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^bSix year average estimated number of persons in the population.

Table D6 Estimated annual rates of offending in personal crimes which occurred "at or near home" (per 100,000 potential offenders in each population subgroup), by age of offender,^a extent of urbanization, type of crime,^b and neighborhood economic status, NCS national data, 1973-1978 aggregate^c

Age of offender, extent of urbanization, and type of crime	Economic Status (Percent of total families with less than \$5,000 family income)		
	Low (27-99)	Medium (11-26)	High (0-10)
	12 to 17:		
SMSA Central Cities	(1,684,208) ^d	(2,884,244)	(1,401,189)
Theft	925	752	214
Violent	1,546	2,015	1,037
Balance of SMSA	(663,613)	(3,579,145)	(4,543,019)
Theft	61	257	167
Violent	753	650	752
Areas Outside of SMSA	(3,657,983)	(3,331,543)	(446,208)
Theft	f	f	f
Violent	332	507	348
18 to 20:			
SMSA Central Cities	(987,977)	(1,650,441)	(672,731)
Theft	2,232	1,028	443
Violent	1,346	1,358	2,139
Balance of SMSA	(399,611)	(1,697,358)	(1,914,155)
Theft	306	425	412
Violent	1,279	1,870	1,406
Areas Outside of SMSA	(1,641,751)	(1,768,111)	(172,999)
Theft	f	f	f
Violent	1,456	862	1,584
21 or older:			
SMSA Central Cities	(8,929,505)	(19,352,276)	(8,707,118)
Theft	496	215	116
Violent	1,189	727	427
Balance of SMSA	(3,855,735)	(18,994,902)	(21,432,305)
Theft	263	128	72
Violent	820	642	396
Areas Outside of SMSA	(19,231,335)	(17,501,182)	(2,089,002)
Theft	72	63	39
Violent	446	488	331
Total: ^e			
SMSA Central Cities	(11,601,690)	(23,886,961)	(10,781,038)
Theft	706	336	149
Violent	1,254	926	613
Balance of SMSA	(4,918,959)	(24,271,405)	(27,889,479)
Theft	239	168	111
Violent	848	729	523
Areas Outside of SMSA	(24,531,069)	(22,600,836)	(2,708,209)
Theft	80	76	30
Violent	566	520	401

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

^fThere were too few offenders reported in this category to provide reliable estimated rates of offending.

Table D7 Estimated annual rates of offending in personal crimes which occurred "at or near home" (per 100,000 potential offenders in each population subgroup), by age of offender,^a type of crime,^b and neighborhood unemployment, NCS national data, 1973-1978 aggregate^c

Age of offender and type of crime	Unemployment		
	(Percent of total civilian labor force 16 years old and over which is unemployed)		
	Low (0-2)	Medium (3-5)	High (6-99)
12 to 17:	(4,714,880) ^d	(11,278,233)	(6,198,035)
Theft	210	246	368
Violent	757	806	1,076
18 to 20:	(2,205,904)	(5,646,587)	(3,052,642)
Theft	389	586	776
Violent	1,199	1,135	2,033
21 or older:	(25,689,586)	(62,669,027)	(31,734,746)
Theft	94	109	246
Violent	411	539	810
Total: ^e	(32,610,371)	(79,593,849)	(40,985,425)
Theft	131	162	303
Violent	514	619	941

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

Table D8 Estimated annual rates of offending in personal crimes which occurred "at or near home" (per 100,000 potential offenders in each population subgroup), by age of offender,^a type of crime,^b and neighborhood racial composition, NCS national data, 1973-1978 aggregate^c

Age of offender and type of crime	Racial Composition			
	(Percent Black)			
	0	1-5	6-59	60-100
12 to 17:	(10,322,582) ^d	(5,584,290)	(4,726,664)	(1,557,611)
Theft	148	287	287	1,002
Violent	697	925	1,046	1,304
18 to 20:	(4,590,707)	(3,192,046)	(2,296,715)	(725,665)
Theft	362	446	819	2,158
Violent	1,292	1,375	1,143	3,182
21 or older:	(56,233,437)	(32,065,536)	(24,989,415)	(6,804,970)
Theft	81	122	210	495
Violent	476	565	653	1,296
Total: ^e	(71,245,726)	(40,841,872)	(32,012,794)	(9,088,246)
Theft	108	169	265	714
Violent	559	677	746	1,447

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

Table D9 Estimated annual rates of offending in personal crimes which occurred "at or near home" (per 100,000 potential offenders in each population subgroup), by age of offender,^a type of crime,^b and neighborhood residential mobility, NCS national data, 1973-1978 aggregate^c

Age of offender and type of crime	Residential Mobility (Percent of total persons 5 years old and over living in same house as 5 years ago)		
	Low (63-99)	Medium (47-62)	High (0-46)
	12 to 17:	(5,631,450) ^d	(11,093,404)
Theft	166	188	349
Violent	556	524	893
18 to 20:	(2,410,921)	(5,011,428)	(3,482,785)
Theft	480	499	466
Violent	1,176	1,036	973
21 or older:	(29,691,475)	(59,538,941)	(30,862,942)
Theft	83	107	173
Violent	327	432	704
Total: ^e	(37,733,846)	(75,643,773)	(39,812,021)
Theft	120	144	221
Violent	415	485	753

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

Table D10 Estimated annual rates of offending in personal crimes which occurred "at or near home" (per 100,000 potential offenders in each population subgroup), by age of offender,^a type of crime,^b and neighborhood structural density, NCS national data, 1973-1978 aggregate^c

Age of offender and type of crime	Structural Density (Percent of total units in structures of 5 or more units)		
	Low (0)	Medium (1-11)	High (12-99)
	12 to 17:	(4,931,583) ^d	(11,666,640)
Theft	98	217	454
Violent	330	873	1,346
18 to 20:	(1,927,544)	(5,393,952)	(3,583,638)
Theft	186	399	1,124
Violent	1,474	1,331	1,463
21 or older:	(22,666,487)	(60,757,546)	(36,669,326)
Theft	94	89	261
Violent	444	539	745
Total: ^e	(29,525,614)	(77,818,138)	(45,845,890)
Theft	101	130	363
Violent	492	644	874

^aIncludes perceived age of lone and perceived age of oldest multiple offender.

^bTheft crimes include robbery and personal larceny. Violent crimes include rape, aggravated assault, and simple assault.

^cExcluded are incidents (about 6 percent of the total) in which the victim did not know whether there was one or more than one offender.

^dSix year average estimated number of persons in the population.

^eExcluded are incidents (about 4 percent of the total) in which the victim did not know the age of offender.

Appendix E

Table E1 Type of crime definitions in the National Crime Survey

Type of crime	Definition
Rape	Carnal knowledge through the use of force or the threat of force, including attempts. Statutory rape (without force) is excluded. Includes both heterosexual and homosexual rape.
Robbery	Theft or attempted theft, directly from a person or a business, of property or cash by force or threat of force, with or without a weapon. This includes both:
Robbery with injury	Theft or attempted theft from a person, accompanied by an attack, either with or without a weapon, resulting in injury. An injury is classified as resulting from a serious assault if a weapon was used in the commission of the crime or, if not, when the extent of the injury was either serious (e.g., broken bones, loss of teeth, internal injuries, loss of consciousness) or undetermined but requiring 2 or more days of hospitalization. An injury is classified as resulting from a minor assault when the extent of the injury was minor (e.g., bruises, black eyes, cuts, scratches, swelling) or undetermined but requiring less than 2 days of hospitalization.
Robbery without injury	And: Theft or attempted theft from a person, accompanied by force or the threat of force, either with or without a weapon, but not resulting in injury.
Aggravated assault	Attack with a weapon resulting in any injury and attack without a weapon resulting either in serious injury (e.g., broken bones, loss of teeth, internal injuries, loss of consciousness) or in undetermined injury requiring 2 or more days of hospitalization. Also includes attempted assault with a weapon.

Table E1 (continued)

Simple assault	Attack without a weapon resulting either in minor injury (e.g., bruises, black eyes, cuts, scratches, swelling) or in undetermined injury requiring less than 2 days of hospitalization. Also includes attempted assault without a weapon.
Personal larceny with contact*	Theft of purse, wallet, or cash by stealth directly from the person of the victim, but without force or the threat of force. Also includes attempted purse snatching.
- Personal larceny without contact	Theft or attempted theft, without direct contact between victim and offender, of property or cash from any place other than the victim's home or its immediate vicinity. In rare cases, the victim sees the offender during the commission of the act.

*In this report personal larceny with contact is referred to simply as "personal larceny." This is a departure from the standard National Crime Survey definitions in which "personal larceny" includes both personal larceny with contact and personal larceny without contact.

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