Document Title: Personal Protective Behaviors and the Threat of

**Crime: A Comparative Analysis** 

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Northwestern University Center for Urban Affairs

Document No.: 82423

Date Published: 1980

Award Title: Reactions to Crime Project

Award Number: 78-NI-AX-0057

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PERSONAL PROTECTIVE BEHAVIORS

AND THE THREAT OF CRIME:

A COMPARATIVE ANALYSIS

REACTIONS TO CRIME PROJECT
CENTER FOR URBAN AFFAIRS

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April 1980

Prepared under Grant Number 78-NI-AX-0057 from the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, U.S. Department of Justice. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

# PERSONAL PROTECTIVE BEHAVIORS AND THE THREAT OF CRIME: A COMPARATIVE ANALYSIS

by

Terry L. Baumer

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

April

1980

## **ACKNOWLEDGMENTS**

I wish to thank the members of my committee, Thomas Gannon, S.J., Kathleen McCourt, Wesley Skogan, and the Director, William Bates, for their patience and support during the preparation of this dissertation.

The research reported here was supported by a grant from the National Institute of Justice to Northwestern University's Center for Urban Affairs. Without the support of these two institutions, this research would not have been possible.

Finally, a special thank you to my wife, Margie, and son, Zachary, for their understanding and tolerance of a preoccupied, and often, irritable husband and father.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
VITA	iii
LIST OF TABLES	٧
LIST OF FIGURES	vi
CONTENTS OF APPENDICES	vii
Chapter	
I. INTRODUCTION	1
The Nature of Protective Behavior	4 9
Characteristics of the Local Environment Crime Related Information	
Personal Vulnerability to Attack Subjective Assessments of Danger	25
Personal Protective Behaviors	28 29
II. METHODOLOGY	33
Data Collection	33 40 48
III. RESULTS	51
The Correlates of Personal Protective Behaviors	51 59 67 74 82
IV. CONCLUSIONS	88
REFERENCES	97
APPENDIX A	104
APPENDIX B	108

## LIST OF TABLES

Table		Page
2.1	Obtained and Weighted Sample Sizes for Sampling Areas	. 39
3.1	Zero-order Correlations, Means, and Standard Deviations of Major Variables: City Samples	53
3.2	Correlations Between Crime Related Information Variables and Personal Protective Behaviors Controlling for Assessments of Environmental Danger and Estimates of Personal Danger	. 61
3.3	Partial Correlations Between Indicators of Vulnerability and Personal Protective Behaviors	63
3.4	Partial Correlations Between Estimates of Personal Danger and Personal Protective Behaviors	. 64
3.5	Partial Correlations for Education, Employment Status, Stability, and Race	. 66
3.6	Regression Coefficients for the Regression of Personal Protective Behaviors on Five Covariates: City Samples	. 69
3.7	Contribution of Unique Coefficients for Major Independent Variables: City Samples	. 71
3.8	Unstandardized Regression Coefficients for Age by City	73
3.9	Zero-order Correlations, Means, and Standard Deviations for Major Variables: Neighborhood Samples	. 76
3.10	Regression Coefficients for the Regression of Personal Protective Behaviors on Four Covariates: Neighborhood Samples	. 78
3.11	Neighborhood of Residence as a Predictor of Personal Protective Behaviors	. 80
3.12	Tests for Common Slope of Four Principal Correlates: Neighborhood Samples	. 81
3.13	Summary of Multivariate and Comparative Analyses	. 84

## LIST OF FIGURES

Figur	<b>e</b>		F	Page
1.	Representation of Initial Conceptual Framework			13
2.	Modified Conceptual Framework			31

## CONTENTS OF APPENDICES

		Page
APPENDIX A		704
	Respondent Selection Matrix	104
APPENDIX B	Interview Schedule	108

#### CHAPTER I

#### INTRODUCTION

Historically, social problems have been one of the most central concerns of sociologists, and crime has been the most widely investigated of these problems. Continuing in this tradition, this research delineates the correlates of the personal protective behaviors employed by a large number of urban residents in response to the threat of victimization. As such, it is a detailed investigation of one component of the crime problem. Although a threat such as crime can often lead to collective action and solidarity on the part of community residents, an alternative reaction may be behaviors which are designed to insulate the individual from victimization but which, in the aggregate, may further atomize the community and reduce existing levels of social Unfortunately, these latter behaviors appear to be both the control. most widespread and least studied of the two potential types of action. This research develops and tests a conceptual framework for understanding the correlates of this latter, individualized mode of action.

Crime is one of the most enduring and problematic characteristics of society, and nowhere is the problem greater than in the cities.

Regardless of the measure, researchers have consistently recorded higher crime rates in urban areas (Quinney, 1966). For example, in 1978 the rate of violent crimes (murder, forcible rape, robbery, aggravated assault) reported to the police was 583.9 crimes per 100,000

population in Standard Metropolitan Statistical Areas (large cities and surrounding areas, including suburbs) while the comparable rate for rural areas was only 174.8 per 100,000 residents. Although the absolute numbers are considerably higher, data from the National Crime Surveys confirm this pattern (Gibbs, 1979). Thus, the existence of crime in urban areas represents a greater threat to the safety of residents and as such, affects many of their lives.

Areas within cities also show considerable variation in terms of the amount of crime. Some areas are veritable oases of safety while crime poses a persistent and ominous threat in others. This effect was observed and documented years ago by members of the "Chicago School" (Shaw and McKay, 1942) and is part of every urban resident's working knowledge of his/her city. Such is the threat in certain areas that residents must develop means of ensuring their own safety. Unfortunately, sociologists have devoted scant attention to either the nature of or reasons for these protective actions.

As with so many social processes, the relationship between crime and the social order is interactive. The types of organization, behaviors, and interactions within an area affect the amount of crime, while the amount and type of crime in the area can, in turn, affect the daily lives of its residents. Much of the research directed toward crime and urban communities has focused on the former of these relationships—the effect of various modes of organization and interaction on crime. Most of the major theories of criminality have focused on particular aspects of social organization as they are thought to affect

levels of criminal behavior. These theories identify a wide variety of mechanisms contributing to crime, ranging from the politics of law (Quinney, 1970; Becker, 1963) to structured access to legitimate means of success (Merton, 1968; Cloward and Ohlin, 1960), differential social organization (Sutherland and Cressey, 1970) and social disorganization (Faris and Dunham, 1939; Shaw and McKay, 1942). Each of these theories posits a means by which crime is created and/or controlled by particular mechanisms of social organization.

Seldom has the impact of crime on the local community been seriously addressed. Of course, Durkheim (1938) was one of the first to discuss the effect which crimes may have on a group, and labelling theorists employ the "societal reaction" as a central concept, but both of these approaches tend to focus attention on the collective condemnation of specific acts or persons by individuals or agents of social control. Neither approach addresses the question of the impact which the threat of crime may have on the general population.

A similar type of impact has been discussed occasionally in studies of urban communities. This is a collective response to danger by residents of high crime and seemingly disorganized localities.

Partly in response to works of the early "Chicago School" of urban sociology which viewed levels of deviant or criminal behavior as a result of social disorganization, this literature has tended to focus on the forms of social organization existing within these "disorganized" areas (cf., Whyte, 1943; Liebow, 1967; Suttles, 1968). Many of the activities discussed by these authors are directed toward ensuring safe passage on

local streets. For example, in his study of the Addams area of Chicago, Suttles (1968) devotes the bulk of the research to outlining the means employed by local residents to ensure personal safety. Concepts such as territoriality, segmented social order, "turf" and the defended neighborhood are extensively discussed throughout this study. However interesting to sociologists and effective as means of ensuring a measure of personal safety these phenomena may be, they describe only a portion of the means employed by urban residents to maintain their own safety. Also to be considered are the individualized modes of action which occur in conjunction with the above mentioned phenomena but which do not result in the more positive, collective solutions.

The research reported here is a study of these more individualized solutions employed by many urban residents in response to the threat of crime. The remainder of this chapter will review previous research on the nature of these actions, present a preliminary conceptual framework, review the existing literature in light of this perspective, and present a modified conceptual framework.

### The Nature of Protective Behavior

The types of behaviors which may be considered as adaptations made to reduce the threat of victimization are almost infinite. For example, people may lock their doors and windows, purchase special locks, lights or alarms, take self-defense lessons, avoid certain people or places, insure their property, restrict their activities, provide for special arrangements with friends or relatives, or even arm themselves, to name only a few. Such diversity may frustrate even the most

comprehensive of research endeavors. In order to reduce the number of behaviors to manageable levels, prior research has followed one of three strategies:

- The study of specific activities.
- The use of global reports of behavior.
- The development of behavioral types.

First, some authors have sidestepped the issue by selecting several actions and studying them individually. For example, Wilson selected seven behaviors which an individual might take "to provide privately for his personal security from criminal victimization" (1976:84). These included: Gun ownership, ownership of other weapons, insurance against theft or vandalism, burglar alarms, guard dogs, exterior lights and participation in a community organization. No attempt was made to combine these into a single index, and each was analyzed separately to identify differences in their correlates. Both Rifai (1976) and Sundeen and Mathieu (1976) followed a similar strategy. While such an approach may be useful as an initial step in the identification of types of actions through the similarity of their correlates, this has not been the outcome of these studies. In general, this strategy does not lend itself especially well either to goals of synthesis or theoretical development and, therefore, will not be pursued here.

In contrast to the above approach, a second strategy has been to ask respondents a single global question concerning <u>any</u> changes in behavior. This is the approach employed in the National Crime Surveys, and results have been reported by Garofalo (1977b) and Hindelang et al. (1978). While the first approach sidestepped the issue by treating

each and every behavior uniquely, this approach lumps all actions together and ignores potential differences in their correlates. At some level, it may well be that the same theoretical system will explain all crime related protective behaviors, however, the state of knowledge is hardly so advanced that different actions can all be thrown together.

The third approach has been to develop classes or types of individual protective behaviors. Although the approach has not been one of rigorous typology construction, some valuable distinctions have been made. One of the most useful of these was offered by Furstenberg (1972) in a not very widely disseminated article. In this paper, he distinguished between "avoidance" and "mobilization." The former included measures designed to restrict exposure and thereby reduce the risk of victimization. Avoidance measures are relatively easy to implement, involve comparatively little expense, and include such things as "staying off the street at night, taking taxis, locking doors, and ignoring strangers" (1972:11). On the other hand, mobilization techniques involve more effort, expense, and planning. As Furstenberg defined this type of protective behavior, it includes: Installing extra locks, floodlights or burglar bars, buying a watchdog, and purchasing a gun.

Furstenberg then went beyond conceptualization to demonstrate the viability of this distinction. Two additive indices of sixteen (unspecified) avoidance items and five mobilization techniques were constructed. Unfortunately, little information concerning the specific characteristics of these indices was provided. When the frequency

distributions and correlates of these measures were examined, he concluded that they did measure distinct constructs. As expected, avoidance measures were employed much more frequently than the mobilization strategies. Similarly, variables such as sex, place of residence (objective risk), and subjective risk were related to avoidance but not to mobilization, while prior victimization and income were related only to the mobilization index.

In a paper written at about the same time as that of Furstenberg, Kleinman and David offer a distinction between "passive" and "aggressive" protective measures (1972:12). This distinction appears to parallel that of Furstenberg, with passive measures occurring most frequently. However, after offering this distinction, Kleinman and David proceed to combine both passive and aggressive measures into one index of protection.

More recently in an extensive review of related literature DuBow et al. (1978) delineated six types of individual protective behaviors. These were: Avoidance, home protection, personal protection, insurance, communication, and participation. The first two of these correspond roughly to the distinction made by Furstenberg, while the third distinguishes protective measures directed toward personal crimes from those directed toward the protection of property. The fourth, insurance, involves behaviors directed at reducing the consequences of victimization rather than the probability of such an incident occurring. The fifth concerns "talking" about crime while the sixth involves acting with others to "do something about crime."

Of these three approaches, the study of specific action, asking global questions, and establishing types of behavioral adaptations, only the third promises to advance our understanding of this area of human behavior in any significant way. Although specific behaviors may be either politically or theoretically important to study, as a general strategy, this approach involves considerable energy and usually results only in a series of unintegrated research findings. Alternately, while global questions may serve in some way to define the parameters of a problem, important etiological variations are often hidden by this approach. Thus, neither of these strategies will be pursued in this research. Rather, a particular type of behavioral adaptation will be empirically derived and selected for study.

The actions to be studied are those relatively easily implemented strategies designed to reduce the chances of violence at the hands of a stranger. This definition involves three basic components: Risk reduction, ease of implementation, and the object of the actions. Each of these components will be discussed briefly and its relationship to the above classifications noted. First, crime related behaviors may be directed at either reducing the chances of victimization or ameliorating the consequences should one be the victim of a crime. This is apparent in the DuBow et al. decision to distinguish "insurance" as a type of behavioral reaction. It should be noted that this characteristic refers only to the purpose of the action and in no way implies their effectiveness. The second, ease of implementation, defined variously as cost or amount of effort required, is a major defining variable in all three of the classifications discussed above. It seems likely that the more

difficult and expensive strategies may be more closely related to available resources (e.g., income, time, investment) and extremes of threat than to more crime related variables. Third, most actions designed to protect against personal crimes are qualitatively distinct from those directed at the protection of property. This is explicit in the distinction made between home and personal protection by DuBow et al. (1978) and at least implied in the content of Furstenberg's categories of action. Thus, the personal protective behaviors to be studied herein are defined in correspondence to criteria established by prior efforts. In addition, they appear to be roughly equivalent to what Furstenberg (1972) termed "avoidance." However, in order to avoid the behavioral image evoked by this term, the group of actions will be referred to as personal protective behaviors. They will be discussed in more detail and operationalized in Chapter Two.

#### Conceptual Framework

A conceptual framework for defining the principal correlates of personal protective behaviors will be outlined in this section. This process will involve several steps. First, a tentative conceptual framework will be presented, and major variables outlined. Second, the existing literature will be reviewed in terms of the ability of the framework to incorporate prior research findings and exceptions will be noted. Finally, a refined conceptual framework, which will guide the remainder of the report, will be presented.

As was noted above, the behaviors of interest in this research are goal oriented and relatively easy to implement. They are measures

directed toward reducing the risk of personal victimization. In addition, the ease of implementation means that their use is available to almost everyone. Neither income nor frailty due to age nor other similar characteristics are likely to restrict access to actions like avoiding "dangerous" areas, not going out at night, or traveling with an escort. Of course, this is not true for many actions which also could be considered as protective, such as owning a gun, purchasing a guard dog, or installing an elaborate security system. These latter actions are more likely to be affected by longstanding values and variables like income and home ownership than are personal protective behaviors (See Wilson, 1976). It will be argued below that personal protective behaviors are very much responsive to environmental characteristics, subjective evaluations of danger, and personal traits related to vulnerability.

One of the most elementary rules of existence is that of selfpreservation. This is no less true for humans than other members of
the animal kingdom. When threatened, a natural tendency is to protect
oneself. Of course, self protection is not an absolute overriding concern. Lines of action may be taken which endanger the actor in the
interest of others. For example, a parent may enter a burning building
in the face of almost certain death to save a child, or a soldier may
smother a grenade with his body in order to save the other troops.

Such admirable examples of love and altruism overriding concerns for
personal safety are legion, but in no way negate the general tendency
toward self preservation. In the absence of such concerns and constraints, people will act to ensure their own safety.

One may also fail to respond to a threat. The most common reasons for nonresponse are likely to be nonrecognition or misinterpretation of a dangerous situation. LeJeune and Alex (1973) have clearly documented the operation of these phenomena for victims of personal crime. In addition, people may neutralize a threat by denying its existence or their susceptibility to it. Cigarette smoking and driving without seat belts are obvious examples of often denied dangers. These observations indicate the importance of knowledge, perceptions, and interpretations in the decision to initiate protective actions.

A major thesis of this research is that the concept of threat plays a major role in the understanding of personal protective behaviors. By their very nature, violent personal crimes, especially "street crimes" committed by a stranger, are threatening events. As Wilson has pointed out, everyone is subject to the threat of victimization (1976:8); however, the intensity of this threat is not constant. Objectively, variations in the pattern of criminal victimization mean that some people are more likely to be victims than others. Subjectively, some people are also threatened more by the possibility of victimization than others. In order for crime to affect either attitudes or behaviors, it must be experienced as a personal threat (cf. Conklin, 1975:17-18). In this way, personal protective behavior can be viewed as a means of coping with variations in the threat of victimization.

From this perspective, an understanding of personal protective behaviors involves the identification of the relevant components of the threat of crime. An initial conceptual framework may be proposed which hypothesizes that estimates of threat or danger issue from four sources: (1) characteristics of the local environment, including but not limited to crime; (2) crime related information; (3) personal vulnerability to attack; and (4) subjective assessments of danger. This preliminary conceptual framework is graphically represented in Figure 1. The nature and hypothesized relationship of each of these variable areas to protective behaviors will be clarified and further specified below through a review of relevant literature. When it will facilitate the discussion, reference to the "fear of crime" literature will be made.

Characteristics of the Local Environment. The local environment is the context within which the behaviors of interest must occur. A wide variety of community characteristics could be related to the use of protective behaviors. The most prominent of these might be the crime rate. However, it is possible that population density, community social integration, racial integration, racial or ethnic change, and a host of other traits may also effect protective actions. It is most plausible that these variables play a defining or limiting role in the genesis of protective behaviors. That is, their effects are probably more indirect than direct, providing the grist for crime information and serving to define the neighborhood in terms of safety.

Evidence regarding the direct effect of context on protective behaviors is very limited. Data from the National Crime Surveys cannot be analyzed in units smaller than cities, thereby limiting their utility. Analysis of intercity differences from this source indicates no major variations, with around 50 percent of the residents of urban

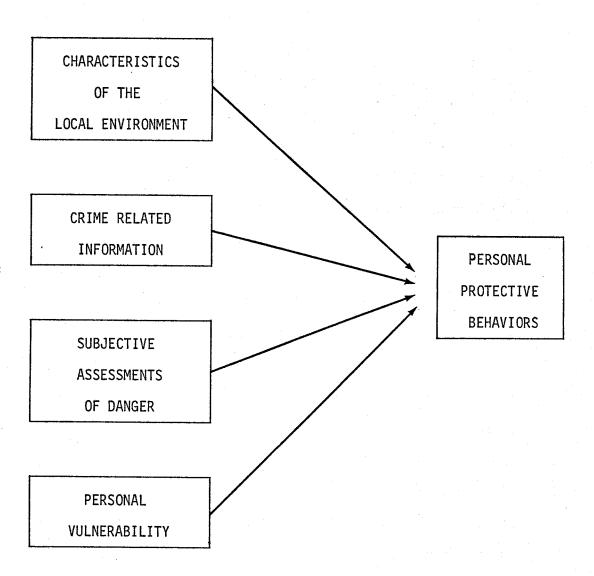


Figure 1. Representation of Initial Conceptual Framework

areas reporting recent unspecified changes in their activities (Garofalo, 1977b). However, within city variation appears to be somewhat greater. In his analysis of data from Baltimore, Furstenberg (1972) found that residents of high crime police districts were more likely than residents of low crime districts to utilize avoidance measures. The effect of subjective estimates of risk was much stronger than that of district crime rate, and when the former was controlled, differences due to the latter dissipated. This would tend to support the hypothesis that the major effects of context are indirect. Wilson (1976) has reported similar results for the Portland metropolitan area. He found that the rate of property crime, violent crime, Uniform Crime Reports Index, and households per police patrol were all ineffectual in predicting any of five protective measures--insurance policies, burglary alarms, guard dogs, guns, or other weapons (1976:121-122). These studies indicate that, at best, local context has only a moderate direct effect on behavioral change and is mediated by more subjective variables. The strength of this latter relationship has been consistently observed at both the individual (Clemente and Kleiman, 1977; Stinchcombe et al., 1978; Boggs, 1971) and aggregate levels (Lewis and Maxfield 1980; McPherson, 1978).

Thus far, local environmental characteristics have been discussed only in terms of their potential additive contribution to personal protective measures. Such an effect has often been inferred from differences between groups which persist after individual level variables have been controlled. However, the persistence of group differences

indicates only the possibility that one or more contextual variables are operating. These residual differences may also be due to an incomplete specification of the individual level variables which combine to produce the behavior of interest. Arguing that this latter case is more often the rule than the exception, Hauser has labelled the unwarranted attribution of residual group differences to a contextual effect as the "contextual fallacy" (1970:659). Both he and other authors (Przeworski and Teune, 1970) have argued that contextual variables need to be considered only when the aggregate unit specifies the interrelationship between variables within systems. In terms of this research, contextual variables must be considered if the correlates of personal protective behaviors are not invariant between local environments. Such an outcome has obvious theoretical implications. If environmental characteristics determine the correlates of personal protective behaviors, then the contextual sources of this variation must be incorporated into the conceptual framework.

There is some evidence that within system correlates of protective behaviors do vary between urban neighborhoods. In his analysis of somewhat different protective behaviors (See above), Wilson (1976) appears to have identified such an effect. When he analyzed the pooled data from the entire Portland metropolitan area, he found that the major independent variables being considered had virtually no effect on the behaviors in question (only one of the 130 bivariate correlations was greater than  $\pm$  0.15). However, when the same analysis was performed within subareas of the city, dramatic increases were observed in the ability to predict these behaviors (1976:124-132). In addition, the

best single predictor of owning a gun or guard dog varied widely between these areas. These results were interpreted to be a consequence of contextual differences, but the author failed to investigate the nature of the variables which might produce such an effect.

John Conklin (1971; 1975) has reported a similar effect involving different concepts. He found that perceptions of crime and feelings of safety were related in only one of the two areas under study. In an attempt to explain this effect, he suggested that a threshold effect operates such that perceptions of crime and feelings of safety are related "... only when the actual crime rate of the community passes a certain critical level" (1975:85). Thus, he posited "crime rate" as the contextual variable which specified the above relationship. While this certainly seems plausible, two cautions are in order. First, as he acknowledges, an attenuation of variance in the low crime community easily could have produced this effect. Second, with only two cases almost any characteristic that differentiated the areas also would explain this effect, although perhaps not so eloquently.

The above discussion suggests that the role of context will be largely mediated by other variables and may serve to specify the effects of those other variables. More specifically, no differences should be expected between cities (See the next chapter for a description of the data) in the levels of personal protective behaviors. Second, neighborhoods should exhibit a significant effect on self reports of these behaviors, but this relationship will be spurious when the remaining independent variables have been controlled. That is,

the effect of context will be predominantly indirect. Finally, it may be expected that the correlates of personal protective behaviors will be contextually determined or specified by context. Support for this latter hypothesis will necessitate an explanation in terms of contextual variables.

Crime Related Information. It may be anticipated that the extent and nature of crime related information will affect personal protective behaviors both directly and indirectly through a subjective process of evaluation. This information may provide a basis on which residents make decisions concerning the safety of the local neighborhood. mation concerning locally experienced crimes is clear evidence of the potential threat of crime to the individual. The impact of this information is probably determined by several variables, the most prominent of which are the credibility of the source and the nature of the offense. It is less likely that tales of traffic offenses related by children will lead to behavioral adaptations or definitions of danger, than a story of rape and murder reported by a close and trusted friend. The amount and type of crime information received by an individual is also not likely to be representative of the amount of crime in the area but influenced by social networks, activities, and selective attention. Finally, although actual events provide the basis for most crime information, it is well known that facts may be distorted through word-ofmouth communication.

As conceived here, crime related information is a very broad category containing three sources. These may be termed:

- Communication by others.
- Personal experience as a victim.
- Personal observations.

The nature of each of these sources will be addressed below and pertinent literature reviewed.

Crime related information may be communicated by others either interpersonally or impersonally through media of communication, both electronic (radio, television) and print (books, newspapers). Some research indicates that interpersonal communication of victimization experiences may affect protective behaviors indirectly through assessments of personal safety. Because of their physical and social proximity, the victimization experiences of friends and neighbors can be expected to influence attitudes and behaviors. People are likely to know about these experiences because victims spend considerable time relating their experiences to others (LeJeune and Alex, 1973). like personally being a victim, the experience of a significant other serves as positive evidence of the threat of crime. Through this process one criminal event may affect many people. Calling this "indirect victimization," Skogan (1977; cf. Conklin, 1971) found residents of households in which any member had experienced either a robbery or personal theft during the past year to feel less safe than residents of households reporting no such incidents. However, the effect of this variable on protective behaviors remains to be tested.

Kleinman and David (1972) have tested a related hypothesis concerning the effects of visibility/social contact on personal protective behaviors. They argued that in a high crime environment, those

residents who are highly visible and have extensive social contacts are in a better position to be aware of the high risk and the requisite extent of protective measures in the area than more isolated residents. They found limited support for this hypothesis. However, other evidence suggests that they may have misinterpreted the nature of the effect. Simple contact and communication with others does not, in itself, affect the probability of initiating protective behaviors. Both Gubrium (1974) and Sundeen and Mathieu (1976) report that the social support provided by community contacts serves to diffuse fear of victimization among elderly respondents. This suggests that in a high crime area, there will be a correspondence between the extent of social contacts and the amount of crime information received. The crucial factor is not that people talk to each other, but rather, the content of those conversations.

Television, radio, and newspaper reports are major sources of information about crime. However, these reports are often not an accurate reflection of the pool of known criminal events. Crimes are not selected for news reports on a random basis, but rather based upon editorial decisions concerning space and newsworthiness. Several studies have found no relationship between the types of crime reported in the news and the distribution of crimes reported to the police (Davis, 1951; Hubbard et al., 1975). News reports tend to overemphasize the serious and spectacular crimes (Roshier, 1973). To the extent that people base their perceptions of the crime problem on these reports, they would be expected to show an exaggerated sense of danger. Little

work has been conducted on this topic, and existing research shows mixed results. Davis (1951) found citizen perception of crime to correspond more closely to media reports than official statistics, while neither Roshier (1973) nor Hubbard et al. (1975) reported such an effect. Further complicating the picture is the finding that only nine percent of the population thinks crime is less serious than presented in the news, while fully 40 percent believe it more serious than those reports (Garofalo, 1977b:42). As with interpersonal communication, there is little existing literature on which to estimate the impact of media content on personal protective behaviors.

The second source of crime related information outlined above is personal experience. Being the victim of a personal crime serves to emphasize the reality of crime and personalize its threat. Common sense suggests that victims will at least modify their behavior to avoid situations or places that have resulted in previous victimizations. However, prior research does not lend much support to this argument. A nationwide study found some tendency for victims to be more cautious than nonvictims (Ennis, 1967). However, more recent data from the eight impact cities of the National Crime Survey (Atlanta, Baltimore, Cleveland, Dallas, Denver, Newark, Portland, and St. Louis) indicated no important differences between gross categories of victims and nonvictims (Garofalo, 1977b), and only slight differences for victims of serious personal crimes (Hindelang et al., 1978:168-170). It appears that the specific offense seems to be a crucial consideration. For crimes involving face-to-face contact between the victim and offender (robbery

without injury, larceny with contact, and assault), victims were considerably more likely than nonvictims to report changes in their daily routine (Garofalo, 1977b:24). In contrast to these findings, Biderman et al. (1967) found victimization to have no effect on personal behaviors, as did Furstenberg (1972), when place of residence within the city was controlled. The implication of this latter finding is that victimization effects may be the spurious result of uncontrolled variables related to place of residence.

The third source of crime related information cited above was personal observations. In the absence of a personal victimization experience or information from a secondary source, residents must evaluate the danger of their neighborhood as best they can. One means of ascertaining the potential danger of an area may be through the use of environmental cues--visible characteristics that have come to be associated with crime. These signs or cues need not involve criminal activity or even pose an immediate threat. They might include the presence of people thought to be "criminal types" or simply signs of disorder and decay such as abandoned cars, vacant buildings, or obvious vandalism. Biderman et al. concluded that in addition to word-of-mouth and media reports, ". . . the highly visible signs of what they regard as disorderly and disreputable behavior in their community" were a major determinant of residents' impressions about local crime (1967:160). More recently, Lewis and Maxfield (1980) have called these "signs of incivility." Using a measure which combined responses to questions which asked how big a problem abandoned buildings, vandalism, loitering

groups of teenagers, and drug abuse were in their neighborhood, they found levels of incivility to be more closely related than local crime rate to aggregate levels of safety. Fowler has reported similar results at the individual level (1974). While the exact nature of these cues, and their uses have yet to be specified, it appears that they do play a role in defining the danger of a given area. It seems plausible that this information may also affect protective behaviors directly by defining areas to be avoided.

Four principal sources of crime related information have been discussed: interpersonal communication of victimization experiences (indirect victimization), media reports of crime, personal experience as a victim, and the use of environmental cues. The effects of two of these, media reports and personal victimization, will not be investigated here. The former was eliminated due to problems of measuring the volume of media crime information consumed by an individual (See Skogan and Maxfield, 1980), and the latter not measured because it is a rare event requiring significantly larger sample sizes for stable estimates than those employed here.

Several expectations concerning the effects of the remaining two variables, indirect victimization and the presence of environmental cues, may be specified. First, each should demonstrate significant zero-order correlations with both personal protective behaviors and subjective assessments of danger. Second, their hypothesized informational and definitional roles suggest that they will be more strongly correlated with subjective estimates of danger than personal protective

behaviors. In addition, subjective processes may mediate the effect of these variables such that they have a spurious impact when the others are controlled.

Personal Vulnerability to Attack. A third set of variables related to personal protective behaviors involves personal characteristics generally indicative of vulnerability to predatory crimes. People with greater vulnerability may be thought of as being more sensitive to the threat of crime than the less vulnerable. That is, given similar levels of threat, those who are more vulnerable might be expected to feel more in danger and react more than those who are less vulnerable. Although vulnerability is usually not independently measured, it has been argued that the demographic characteristics of sex and age may be employed as general indicators of this characteristic. Stinchcombe et al. (1978) present this point in detail. Briefly, they argue that ability to resist attack is a major indicator of vulnerability for both the potential victim and offender. All things being equal, physical strength and agility are of primary concern in estimating vulnerability. Given that young males are the modal offenders for personal crimes, this ability to resist must be compared to the capabilities of young males. As a whole, women possess less physical strength and fighting prowess than their male counterparts. In addition, one characteristic of the aging process is a general decline in physical strength, speed, and agility. These characteristics make both women and the elderly easier marks for a young male in search of a potential victim.

Sex has consistently emerged as the most powerful predictor of assessments of danger for personal crimes. Every major study has documented the substantially higher perceived threat among women (e.g., Biderman et al., 1967; Ennis, 1967; Conklin, 1975; Garofalo, 1977; Clemente and Kleiman, 1977). The effect of age follows closely that of sex, although the relationship appears to be somewhat weaker and less consistent. While some researchers have observed an age effect (Conklin, 1975; Garofalo, 1977; Clemente and Kleiman, 1977; Hindelang et al., 1978), others have failed to identify any relationship between age and perceived danger (Biderman et al., 1967; Fowler and Mangione, 1974). These inconsistencies may be due, in part, to the nonlinearity of this relationship. Skogan (1978b) has shown that age makes very little difference in levels of fear except for those over 60. Thus, the effect of age is due to the peculiar condition of being elderly--rather than an aging effect (cf., Cook et al., 1978).

Not only do women and the elderly feel less safe than men and younger people, but they are also more likely to report changes in their behavior because of crime (Hindelang et al., 1978). In fact, there is some evidence that sex differences are even stronger for behavioral changes than for estimates of danger (Furstenberg, 1972). Women in all age groups are much more likely than men to limit their activities. However, the effect of age tends to be stronger for men. Sex differences in the extent of protective behaviors narrow with advancing age (Hindelang et al., 1978:205). So pronounced are these differences that when sex is controlled, the effect of age is almost entirely due to

the increasing tendency of men to modify their behavior with age, while women show only a slight tendency to change their behavior with advancing age (Furstenberg, 1972:17-18). In statistical terms, sex and age interact. It may be noted that this interaction effect has also been observed for estimates of personal danger (Hindelang, 1976).

The above review suggests that these two variables will play a significant role in understanding personal protective behaviors. First, both variables should be significantly related to protective behaviors, and controls should not affect these relationships. Second age may be nonlinearly related to both subjective danger and protective behavior. If this hypothesis is supported, age will be appropriately transformed prior to the final analysis in order to meet the assumption of linearity required by multiple regression procedures. Third, sex and age may have an interactive effect on personal protective behaviors. Finally, each variable also should be significantly related to subjective estimates of safety.

Subjective Assessments of Danger. From the perspective taken here, subjective assessments of danger should be key correlates of personal protective behaviors. It is not enough to live in a high crime area, hear about locally committed crimes, and be relatively vulnerable; the citizen must recognize his/her situation as being dangerous. That is, the situation must be defined by the individual as dangerous or unsafe. It is this process of subjective assessments of danger which is theoretically most closely related to protective behaviors. This line of argument, as with the previous variable areas, in no way implies

that these assessments are an accurate reflection of the risks faced by residents. It may well be that they are roughly accurate for most people. However, many factors may conspire to <u>indicate</u> danger whether it is present or not, and it is the subjective impression of danger which is most important.

Prior research by this author indicates that subjective danger may have two principal components -- one with an environmental and the other with a personal referent (Baumer, 1979). Both involve judgments about the relative safety for the individual. The former involves assessments of environmental danger; that is, subjective definitions of the threat posed by crime in the neighborhood. Very little research has been conducted on this variable. However, a consideration of the theoretical role of this construct will clarify its relationship to personal protective behaviors. For many, a judgment of environmental danger may be only the first step toward taking protective action, while for others, it may be a sufficient condition for taking such action. In analytic terms, this variable would be expected to have both direct and indirect effects on personal protective behaviors. The indirect effect would operate through subjective definitions of personal safety. To the extent that residents judge their environment as dangerous and personalize that threat, they may be expected to take appropriate actions. As a summary indicator of the threat posed by crime, these assessments should also be closely correlated with the crime related information variables discussed earlier.

The component of subjective threat which involves personal definitions of safety is conceptually closest to what is usually referred to as "fear of crime." In order to avoid the conceptual baggage this term has accumulated over the past 15 years, this variable will be referred to as estimates of personal danger. As such, this is a crucial variable to be considered in any study of protective behaviors. People in self-defined threatening situations can be expected to take measures to reduce that threat.

There is some evidence to suggest that estimates of personal danger are, indeed, very closely related to protective behaviors. Various measures of threat have been shown to be related to changes in individual behavior patterns. Furstenberg found respondents reporting a high level of subjective risk of victimization to be over four times as likely as those reporting low estimates of risk to be classified as "high avoiders" (1972:15). When the effects of both subjective risk and local crime rate were examined simultaneously, the former was found to be more important than the latter. More recently, Hindelang et al. found a similarly strong relationship between these two variables.

Only 22 percent of the respondents who said they felt "very safe" alone in their neighborhood at night reported limiting their behavior because of crime, while 72 percent of those who felt "very unsafe" had done so (1978:204; cf., Garofalo, 1977b:25).

Estimates of personal danger may be expected to be the principal correlate of personal protective behaviors. A strong positive relationship which is unaffected by control variables should exist between it

and the dependent variable. As was suggested in the above review, indicators of vulnerability (sex, age), and definitions of environmental danger should also be closely related to this variable. Third, informational variables should be initially related to estimates of personal danger. However, their major role will be in defining the extent of environmental threat. Hence, when this latter variable is controlled, the effect of informational variables should be reduced.

Other Potential Correlates of Personal Protective Behaviors. In addition to the four variable domains discussed above, prior research suggests that two other principal areas should be considered: Characteristics related to objective risk and integration into the local community. Race, income, education, and employment status are roughly related to objective risk of victimization. Nonwhite and poor residents report higher rates of personal victimization (Hindelang et al., 1978). Several studies have found that the above groups do report taking more precautions (Biderman et al., 1967; Hindelang et al., 1978), however, it appears that these correlations are the result of contextual variations rather than the personal traits of being poor or nonwhite. When place of residence is controlled, Furstenberg (1972) reports the effect of these variables on avoidance behaviors to be spurious. Supportive of this interpretation are findings by Yaden et al. (1973) and Lavrakas et al. (1978) that within some high crime areas high subjective estimates of danger are associated with being white.

Integration into the social fabric of the community may also affect the use of personal protective behaviors, by providing a

knowledge of who belongs on the street, what constitutes threatening behavior, and the presence of friends who could come to one's aid in times of emergency. There is some evidence that these variables may reduce subjective estimates of danger (Baumer and Hunter, 1979). However, the relationship of such variables with protective behaviors remains untested.

### Summary

The major task of this chapter has been to present a conceptual framework for understanding personal protective behaviors and review the adequacy of that framework in light of the existing literature.

There were four major components of the initial framework: context, crime related information, personal vulnerability, and subjective assessments of danger. Variables from each area were initially hypothesized to have direct positive effects on personal protective behaviors. For heuristic purposes, this initial framework was graphically represented by Figure 1.

The subsequent review of the variable domains suggested several variables within each area and that the probable relationship of those variables was not as simple as originally described. Existing literature suggested the presence of at least two variables for three of the four general areas. Crime information was posited to derive from media reports, interpersonal communication of victimization experiences, and the perception of environment cues. Only the latter two will be studied here. The principal indicators of personal vulnerability were

sex and age. Finally, "subjective estimates of danger" was divided into assessments of environmental danger and estimates of personal danger.

The discussion of the role of each component variable and review of the literature suggested the modified conceptual framework presented in Figure 2. Several changes are apparent. First, contextual characteristics are thought to have no direct impact on protective behaviors when other variables have been controlled. Second, none of the informational variables is hypothesized to have a significant independent contribution to personal protective behaviors. Rather, the main effect of these variables is mediated by assessments of environmental danger. Third, assessments of environmental danger, sex, and age are viewed as affecting both personal protective behaviors and estimates of personal danger. Finally, estimates of personal danger is posited as a central variable in this framework.

Several characteristics of the revised framework are not so apparent. These involve interactive and curvilinear relationships which are not easy to represent graphically. First, the possibility that some of the independent variables may interact must be considered. For example, previous research suggests that sex and age may have an interactive effect. Second, it may be anticipated that the effect of age will not be linear, but rather, may be a step function. Third, there is some evidence to suggest that context may specify or determine the strength of some of the relationships. Such an effect of a categorical variable may be treated as an interaction (cf. Cohen and Cohen,

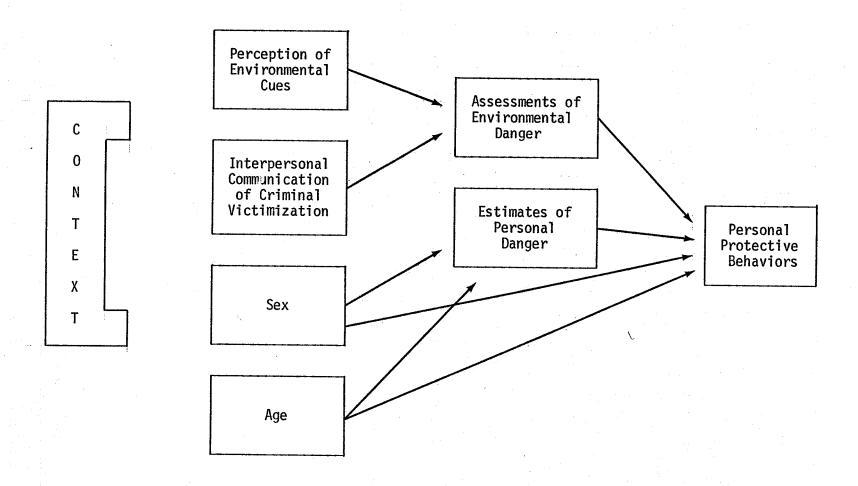


Figure 2. Modified Conceptual Framework

1975; Kerlinger and Pedhazur, 1973), but is usually discussed in a different manner than an interaction of two continuous variables. This indicates that the problem may be distinctly comparative (cf. Przeworski and Teune, 1970).

This research will test the applicability of this revised conceptual framework for understanding the correlates of personal protective behaviors. The principal multivariate correlates are posited to be: estimates of personal danger, assessments of environmental danger, sex and age. Several other variables were hypothesized to have significant zero-order correlations which should be accounted for by the mediating effects of these central variables. A major characteristic of this conceptual framework is its comparative focus. That is, a principal thesis is that contextual variables may specify the correlates of personal protective behaviors. Should this be the case, environmental variables must be incorporated into any future study of these actions.

#### CHAPTER II

#### METHODOLOGY

This chapter documents the procedures employed in this research. They are presented in three major sections. The first concerns the major components of the data collection process. This section outlines the method of data collection, sampling plan, respondents, instrumentation, and data structure. A detailed discussion of these procedures is presented in Skogan (1978) and in most cases, will not be repeated here. The second section presents the operationalization of major constructs, while the third discusses the analytic techniques to be employed in the following chapter.

### Data Collection

The data for this research were collected as a joint venture of two multiyear studies being conducted at Northwestern University's Center for Urban Affairs. Both projects were concerned with the attitudinal, emotional, and behavioral consequences of local crime conditions for the lives of residents of urban neighborhoods, and shared an interest in comparative research. This latter characteristic allowed for the collection of data suitable to test the "contextual specification" hypothesis so central to this study. The survey fielded by these two projects was a joint venture designed to meet a wide array of data needs including those of this report.

The data were collected by means of telephone interviews conducted under the direction of Market Opinion Research, a Detroit based survey research company. The use of telephone interviews was initially considered because of budgetary constraints and supported by recent evidence concerning the high quality of the obtained data. As will be described below, the comparative nature of the research required a sample of over 5,000 respondents on a very limited budget. Telephone surveys can provide data comparable to in-person interviews at approximately 30 to 50 percent of the cost without the low response rates so characteristic of mailed questionnaires (See Tuchfarber et al., 1976; Groves, 1977).

In addition to the low cost, telephone surveys can also produce high quality data. Marketing firms had utilized telephone surveys successfully for many years, but social scientists generally avoided the technique until the high cost of in-person interviews demanded a more cost effective methodology. This reluctance to use telephone surveys was grounded in beliefs concerning limits on the types of questions which may be asked; the possible length of the interview; and the representativeness of samples obtained from telephone subscribers (See Selltiz et al., 1959:239; Simon, 1969:249-250). However, studies conducted during the 1970's counter these beliefs. Several studies indicate that although many visual aids employed with in-person interviews may not be utilized, most questions may be asked with little difficulty and will provide comparable results (Tuchfarber and Klecka, 1977; Groves, 1977). Rogers (1976) has demonstrated that telephone surveys

may run as long as 50 minutes with little difficulty. Subscription rates have steadily increased over the years, thereby decreasing the probable bias in telephone surveys. In 1970, approximately 87 percent of all American households had a telephone (Tull and Albaum, 1977:390), and this figure had increased to 93 percent in 1976 (Tuchfarber and Klecka, 1977). While some researchers still question the representativeness of telephone surveys (Tull and Albaum, 1977), the current consensus is that the data produced in this way are no different from in-person interviews (Tuchfarber and Klecka, 1977; Rogers, 1976). The above considerations suggested that telephone interviews could produce high quality data in a cost effective manner.

The data were collected from 13 independently drawn samples. The two projects had selected for study ten neighborhoods located in three large American cities: Philadelphia, Chicago, and San Francisco. Areas within these cities were selected purposively on the basis of their crime rates, extent of community organization, social class and racial composition. Three (Logan, West Philadelphia, and South Philadelphia) were included in Philadelphia; four (Wicker Park, Woodlawn, Lincoln Park, and Back of the Yards) in Chicago; and three (Sunset, The Mission, and Visitacion Valley) in San Francisco. In addition, a citywide sample was interviewed in each city to provide both a base for comparison and more generalizable data.

The sampling procedure was what may be termed random digit dialing with enrichment. Random digit dialing was employed because samples drawn from published lists exclude unpublished numbers. In urban

areas, as many as 30 percent of all households have such unpublished numbers (Glasser and Metzger, 1972, 1975; Trendex, 1976). Operative prefixes in each of the sampling areas were identified and a sample generated by randomly selecting prefixes and assigning four-digit numbers to them. This procedure continued until an adequately large pool of numbers had been generated for each sample area. For a detailed discussion of this process, the reader is referred to Skogan (1978).

After generating the numbers for each area, the pool of numbers was enriched by elimination of identifiably ineligible numbers. This was achieved principally by checking all generated numbers against a criss-cross directory. These directories list all published numbers sorted by both number and address, rather than alphabetically by subscriber. This procedure allowed listed business and listed out-ofscope residential numbers (those not located in the targeted area) to be eliminated. In addition, whenever possible, coin telephones and banks of numbers reserved for internal telephone company use, businesses, or those simply not in use were also eliminated. In two areas, generated numbers were checked against a "name and address" service operated by the telephone company. Altogether, these procedures allowed for the elimination of a significant number of "unproductive" telephone numbers. The remaining numbers were then called in their original random order. A detailed discussion of these procedures and their impact on the survey may be found in Skogan's (1978) methodological report.

Once contact had been made for a given number, a three-stage screening process was necessary. This process involved the elimination of businesses, government agencies, and group quarters; the selection of only geographically eligible households; and random selection of respondents based on household composition. The first step was to establish that a household had been reached by asking the question: "Is this a business or residential number?" The second step was to determine geographic eligibility. For the neighborhood samples, this was accomplished by a "blocking" procedure in which the desired area was defined in terms of boundaries and eligibility defined in relation to these boundaries. If eligibility could not be determined in the above manner, the respondent was asked to give the street and block of their residence. For the three citywide samples, only a question concerning residence in the city was necessary. An example of a neighborhood screening section is presented in Appendix A.

Once an eligible household was located, a respondent was randomly selected from adults (18 or older) currently living there. This was accomplished by use of Trodahl-Carter selection matrices. This procedure allows for randomized selection of respondents without the more detailed information required by Kish tables (cf. Kish, 1965; Trodahl and Carter, 1964). One of the projects needed to obtain detailed inperson interviews from approximately 100 women in each of six neighborhoods. In response to this need, women were oversampled in six of the ten neighborhoods. This was accomplished by varying the rotation

pattern of the selection matrices (See Trodahl and Carter, 1964). An example of the screening matrix is presented in Appendix A.

Completion rates for this survey have been analyzed in detail by Skogan (1978). He calculated several completion rates which varied in the assumptions made. For what he called the "most reasonable" figure, the overall completion rate was 48.2 percent. This value ranged from 40.5 percent in the San Francisco citywide samples to 62.9 percent in the Lincoln Park area of Chicago (Skogan, 1978:17-20).

The interview was fairly short and maintained respondent interest. The level of interest is suggested by the low proportion of noncompletions attributed to breakoffs during the interview and interviewer evaluations of respondent attention. The instrument consisted of 66 questions containing approximately 175 potential data points. For most respondents, the interview required only around 30 minutes. The full instrument is presented in Appendix B.

The data collection process resulted in 13 independent samples. Table 2.1 presents the size of each sample. As can be seen, the city-wide samples were around 530 respondents. Approximately 450 respondents were selected in six of the neighborhoods (two in each city) while only 200 were interviewed in the remaining four neighborhoods (not presented). For the analytic purposes of this study, these were divided into two data files: (1) a city file composed of the three citywide samples; and (2) a neighborhood file composed of the six large neighborhood samples. The four small neighborhood samples were eliminated from this analysis because of the large sampling variance resulting from their small size.

Table 2.1 Obtained and Weighted Sample Sizes for Sampling Areas

Sample Area	Completed Interviews	Weighted Samples
Citywide Samples: Philadelphia Chicago San Francisco	530 529 526	453 425 488
Total "City" Respondents	1,585	1,369
Neighborhoods: West Philadelphia South Philadelphia Lincoln Park Wicker Park Sunset Visitacion Valley	454 454 432 465 456 434	243 275 360 311 307 274
Total "Neighborhood" Respondents	2,695	1,772

Two characteristics of the sampling plan required weighting prior to analysis. These were (1) the oversampling of women in the six neighborhoods, and (2) the inclusion of households with multiple telephone numbers. No case received a weight greater than one. weighting was required, the cases were down-weighted in order that tests of significance might still be performed. The actual weighting procedure operated such that all respondents were assigned a weight equal to the inverse of the number of telephone numbers in order to adjust for the probability of selection (See Glasser and Metzger, 1972). Women were down-weighted for each sample such that the sex distribution in that sample mirrored that of the city in which it was located (For details, see Skogan, 1978). This latter procedure had important implications for the analysis of the distribution of many variables but generally does not affect the types of multivariate analyses reported herein. The weighting procedure produced weighted samples of 1,369 for the city file and 1,722 for the neighborhood file (Table 2.1).

# Operationalization of Major Constructs

In addition to the substantive content, one of the unique contributions of this work rests in its use of standard scale construction techniques. Whenever possible, multi-item indices of major constructs have been employed which are unidimensional and demonstrate moderate to high alpha reliabilities. This stands in contrast to much of the research in this area. Researchers have typically utilized

either single items or constructed additive indices without reporting even the intercorrelations of the items (See Baumer, 1979). The present work and other reports employing the above data attempt to improve on this situation (cf. Skogan and Maxfield, 1980; Lewis et al., 1980).

In this section, the operationalization of major constructs as used in this research is reported. The nature of each construct is discussed; the items used to operationalize it presented; and, when applicable, salient characteristics of the index discussed. In all cases, this analysis was initially performed only on the citywide samples because of their broader external validity. However, because the characteristics of some scales might be dependent on ecological variation, the analysis was replicated for each of the neighborhood samples. This latter analysis demonstrated no significant changes in characteristics of any of the indices. Therefore, the results reported here are based on the citywide samples.

<u>Personal Protective Behaviors</u>. In Chapter One, the dependent variable was defined as: easily implemented behaviors directed at reducing the risk of violence by a stranger. From the wide array of behaviors that may fit this definition, four were initially selected for analysis:

- When you go out after dark, how often do you get someone to go with you because of crime?
- 2. How often do you go out by car rather than walk at night because of crime?
- 3. How about taking something with you at night that could be used for protection from crime--like a dog, whistle, knife or a gun? How often do you do something like this?

4. How often do you avoid certain places in your neighborhood at night?

These items were asked together and given the following introduction:

Now I have a list of things that some people do to protect themselves from being attacked or robbed on the street. As I read each one, would you tell me whether you personally do it most of the time, sometimes, or almost never?

Two characteristics of these items are worth noting here. First, the response format was the same for each, with frequency of use being employed rather than a "yes/no" format. Second, because there are many reasons for taking these actions in addition to the threat of crime, each action was explicitly linked to protection from victimization. These characteristics serve to increase the face validity of the index.

An additive index was constructed from these items. Some respondents volunteered that they "never go out at night." This response was viewed as an extreme form of protective behavior, and coded as 3.25 (0.25 higher than "most of the time"), a purely arbitrary figure. With the above modification, the four items proved to be unidimensional and formed an additive scale with an alpha reliability of .703 (See Cronbach, 1951 or Novick and Lewis, 1967).

<u>Estimates of Personal Danger</u>. This concept involves the personalization of threat. It is the estimation by the individual that he or she is or is not safe. It was operationalized by combining responses to two items:

1. How safe do you feel, or would you feel, being out alone in your neighborhood at night--very safe, somewhat safe, somewhat unsafe or very unsafe?

2. How about <u>during the day</u>. How safe do you feel, or would you feel, being out alone in your neighborhood during the day--very safe, somewhat safe, somewhat unsafe, or very unsafe?

As might be expected, these two items were highly correlated (r = 0.52).

An alternative index was considered but rejected as the measure of this concept. It was an additive index composed of three questions which asked respondents to estimate their risk of victimization on a scale of zero to ten. Specific crimes included burglary, robbery, and assault. This scale was unidimensional and demonstrated an alpha reliability of .826. However, it was concluded that this index did not have adequate face validity for this construct and was discarded in favor of the initial index.

Assessments of Environmental Danger. This was the environmental component of subjective danger. It involves assessments of danger present in the local environment. This construct was measured by an additive index, composed of four items:

- 1. What about burglary for the neighborhood in general. Is breaking into people's homes or sneaking in to steal something a big problem, some problem, or almost no problem for people in your neighborhood?
- Besides robbery, how about people being attacked or beaten up in your neighborhood by strangers. Is this a big problem, some problem, or almost no problem?
- 3. How about <u>people</u> being robbed or having their purses or wallets taken on the street. Would you say that this is a big problem, some problem, or almost no problem in your neighborhood?
- 4. In your neighborhood, would you say sexual assaults are a big problem, somewhat of a problem, or almost no problem at all?

A major feature of these items is their request for an evaluation (big problem, some problem, almost no problem) rather than a relative frequency (a lot, some, very little) concerning crime in the neighborhood. When combined to form an additive index, they produced a reliability of .674.

Personal Vulnerability to Attack. Vulnerability to attack was defined in Chapter One roughly as the ability to resist or deter attack. As a general concept, it may be measured in many ways and involve many personal traits. However, it was argued that sex and age are probably good approximations to this construct, and were used here. Age was obtained by a standard question, while the respondents' sex was identified during the respondent selection process. Of course, many women and elderly are probably less vulnerable than many men and youngsters, but in general it may be expected that the former groups are more vulnerable. In addition, it is possible that the effects of these two characteristics on personal protective measures may also be due to more than vulnerability. However, for the purposes of this study, they will be employed as indicators of that characteristic.

Interpersonal Communication of Victimization Experiences. This concept refers to the amount of crime information an individual receives from his or her friends and neighbors. Specifically, it includes knowledge of the victimization experiences of these significant others. This construct was operationalized by first asking the respondents if they personally knew a victim (in the past few years) of four types of crime--burglary, robbery, assault, and rape. The exact wording of these questions was:

- 1. Do you personally know of anyone, other than yourself, whose home or apartment has been broken into in the past couple of years?
- 2. Do you personally know of anyone, other than yourself, who has been robbed or had their purse or wallet taken in the past couple of years, of if someone tried to do this to them?
- 3. Do you personally know anyone who has been a victim of an attack by strangers in the past couple of years, or if any stranger tried to attack anyone you know?
- 4. Do you personally know anyone who has been sexually assaulted?

Respondents who answered "yes" to any of these questions were then asked if the incident occurred in their neighborhood. They were given a point for each type of crime for which they personally knew a local victim. The values for this variable could, therefore, range from zero (low crime information) to four (high crime information).

<u>Environmental Cues</u>. This concept was another source of crime information. It involved visible characteristics which have come to be associated with crime. It was operationalized by responses to four questions. They were asked as a group and lead by a common introduction:

Now, I am going to read you a list of crime-related problems that exist in some parts of the city. For each one, I'd like you to tell me how much of a problem it is in your neighborhood. Is it a big problem, some problem, or almost no problem in your neighborhood?

- 1. For example, groups of teenagers hanging out on the streets. Is this a big problem, some problem, or almost no problem in your neighborhood?
- 2. Buildings or storefronts sitting abandoned or burned out. Is this a big problem, some problem, or almost no problem in your neighborhood?

- 3. People using illegal drugs in the neighborhood. Is this a big problem, some problem, or almost no problem?
- 4. Vandalism like kids breaking windows or writing on walls or things like that. How much of a problem is this?

Interviewers were given instructions to rotate the order in which the questions were asked. A factor analysis indicated that these items were unidimensional, and an alpha reliability of .755 was obtained for the additive index created from them.

Characteristics of the Local Environment. One of the principal questions to be addressed by this research concerns the effect that local context may have on the relationships being tested. At its broadest level, context will be operationalized by a categorical variable identifying place of residence as defined by the nine sample areas being studied (six neighborhoods and three cities). This will be the primary analytic variable employed in the contextual analysis. Although aggregate values of various contextual attributes could be employed instead, the former approach is more sensitive to contextual variation (Alwin, 1976:298) and, therefore, more consistent with the exploratory nature of this part of the research. Should place of residence specify or condition the relationship between other sets of variables, potential sources of such an effect will be investigated. The major source of data for this analysis will be aggregate sample characteristics. Specific variables will depend upon the source and nature of the effect. Examples of relevant aggregate characteristics might be: stability (percent homeowners, average length of residence) or racial/ethnic composition. As will be pointed out in the following

section of this chapter, the limited number of sample areas precludes any rigorous statistical test of such variables. Such analysis must be reserved for data collected from a broader number of areas.

Operationalization of Other Variables. Five additional variables (race, income, employment status, residential stability, and social integration) were identified as having a potential impact on personal protective behaviors, but were not included as part of the conceptual framework. The first, race, was measured by a standard item. For this analysis, it was dichotomized to reflect a white/nonwhite distinction. Household income was requested, but a large proportion of respondents failed to provide information. As a result, education (also measured by a standard question) will be utilized here as a rough surrogate for income. Employment status was derived from the question asking "Are you presently employed somewhere, or are you unemployed, retired, (a student), (a housewife), or what?" Those respondents currently employed and those with jobs but not working at the time of the interview were defined as employed for the purposes of this research. The exact questions for each of these may be found in Appendix B.

Residential stability and social integration were both operationalized by multi-item indices. The first was composed of three items. These were:

- 1. How many years have you personally lived in your present neighborhood?
- 2. Do you own your home, or do you rent it?
- 3. Do you expect to be living in this neighborhood two years from now?

These three items were found to be unidimensional and when standardized and summated, demonstrated an alpha reliability of .555.

The second of these, social integration, was also an additive index composed of the following items:

- In general, is it pretty easy, or pretty difficult, for you to tell a stranger in your neighborhood from somebody who lives there?
- 2. Would you say that you really feel a part of your neighborhood, or do you think of it more as just a place to live?
- 3. How about kids in your immediate neighborhood. How many of them do you know by name--all of them, some, hardly any, or none of them?

These items were also unidimensional, and an alpha reliability of .585 was obtained from the additive index constructed from the standardized variates.

## Analytic Procedures

Before proceeding to the next chapter, some of the analytic techniques to be employed there will be clarified. For the majority of the analysis, little explanation is required. The frequent use of simple and partial correlations, as well as multiple regression analysis in sociology over the past 15 years has obviated the need for explanations of these techniques or their interpretation when employed in a familiar manner. However, a preliminary discussion of new applications or special useages will usually facilitate the presentation and discussion of results. This section presents a brief discussion of the application of multiple regression analysis to comparative research

problems. As defined in Chapter One, the initial comparative problem may be viewed as one in which the dependent variable is hypothesized to be a function of both a categorical variable (aggregate units) and one or more continuous variables. There are two basic questions to be addressed concerning the categorical variable: (1) Do the subgroups differ in their levels of the dependent measure after the continuous variables have been controlled, and (2) Do the continuous variables have the same effects in all subgroups? In terms of this research, we might consider the relationships between assessments of environmental danger, neighborhood of residence, and personal protective behaviors. It might be asked of the data whether neighborhoods still differ in their level of protective behaviors after assessments of environmental danger have been taken into account (question one). In addition, Conklin's thesis of a "threshold effect" (1975) suggests that assessments of environmental danger might be related to protective behaviors in some (high crime) areas but not in others (question two). either case the relevant characteristics of the neighborhoods being studied should be investigated and identified.

Through the use of "dummy" variates and the inclusion of interaction terms, multiple regression analysis addresses these questions in a very concise manner. The use of "dummy" variates to represent a categorical variable is a common procedure and probably will be

It may appear that analysis of covariance is the appropriate analytic technique. However, it has been shown to be simply a specific application of the technique employed here, albeit with more restrictive assumptions (Kerlinger and Pedhazur, 1973:265-277).

familiar to most readers. A test of the difference between groups after adjusting for the covariates involves an F-test of the additional sums of squares accounted for by the "dummy" variates. In terms of more common analysis of covariance, this is a test of the differences between adjusted means.

The question concerning the similarity of relationships across aggregate units (cities or neighborhoods) is basically one concerning the interaction of the categorical and continuous variables. This is but a specific instance of interaction. When two variables interact, whether continuous or not, the effect of one operates differently depending on the value of the other (See Cohen and Cohen, 1975). This is tested simply by the addition of variates for the interaction of the continuous variable and each of the N-1 "dummy" variates. A significant increase in the regression sums of squares produced by the addition of this set of interactive variables indicates that the effect of the continuous variable varies by the aggregate unit. Again, this test might be referred to in analysis of covariance as a test for the common slope. For the specifics of this approach, see Kerlinger and Pedhazur (1973:231-278).

Thus, the comparative analysis reported in the next chapter will employ multiple regression techniques. Both additive and interactive effects will be investigated and identified. Of special interest will be variables whose effect is specified by (interacts with) context. This comparative analysis will take place at both the city and more specific neighborhood levels.

#### CHAPTER III

#### **RESULTS**

This chapter reports the results of the data analysis. In order to facilitate discussion, these results are presented in four sections. The first three sections report on the analysis of the citywide samples, while the fourth presents the basic details of the same analysis performed on the data collected from the six neighborhood samples. The first examines the zero-order correlations among the variables presented in the previous chapters. The second section identifies spurious zero-order correlations by adding relevant control variables. Through the examination of these partial correlations, the interrelationships among the variables are further delineated. In the third section, a multi-variate analysis of the correlates of personal protective behaviors is presented, and a comparative analysis of effects between cities is reported. The chapter concludes with a similar, but much more brief analysis of the data collected in six neighborhoods of the three cities being studied. The principal goal of this section is to test replicability of the multivariate results obtained from the citywide samples in smaller and more homogeneous contexts.

# The Correlates of Personal Protective Behaviors

This section examines the zero-order correlations among personal protective behaviors and selected independent variables. Included in

this analysis are the major variables defined in Chapter One as part of the conceptual framework, as well as, several other variables which may have an independent effect on personal protective behaviors. These correlations will be discussed with reference to the adequacy of the conceptual framework being tested.

The results reported in Table 3.1 indicate that personal protective behaviors are significantly related to 10 of the 11 other variables included for analysis. The four variables hypothesized to be most closely related to protective behaviors, estimates of personal danger (r = .485), sex (r = .407), age (r = .249), and assessments of environmental danger (r = .248) exhibit substantial correlations with the dependent variable. However, two variables not included as part of the conceptual framework, education (r = -.233) and employment status (r = -.249), produced coefficients of the same magnitude as age and assessments of environmental danger. Both the uneducated and unemployed are more likely to take protective measures than their more educated and employed counterparts. The remaining two components of the conceptual framework, evnrionmental cues and interpersonal communication of crime, were also significantly related to protective behaviors with coefficients of .199 and .154 respectively. As expected, given their informational role, these coefficients were somewhat lower than those for the first four. Two other variables, race (r = .198) and stability (r = .104), also exhibit significant nonzero correlations with the dependent variable. Of the 11 variables considered, only the measure of social integration (r = .029) is not significantly correlated with

Table 3.1 Zero-order Correlations, Means, and Standard Deviations of Major Variables: City Samples (N = 1052)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12) <sup>D</sup>
Personal Protective Behaviors	(1)		.485*	.248*	.407*	.249*	.154*	.199*	.104*	.029	233*	249*	.198*
Estimates of Personal Danger	(2)			.452*	.267*	.213*	.261*	.305*	.013	101*	191*	214*	.108*
Assessments of Environmental Danger	(3)				.083	.092*	.480*	.418*	079	116*	022	123*	.021
Sex <sup>A</sup>	(4)					.106*	.015	.042	.052	.045	086	228*	.039
Age <sup>B</sup>	(5)						.061	044	.329*	.025	262*	383*	069
Interpersonal Communication of Crime	(6)							.288*	.108*	.077	024	081	031
Environmental Cues	(7)								070	.033	175*	084	.096*
Stability	(8)									.386*	227*	148*	108*
Social Integration	(9)										196*	094*	.076
Education	(10)											.242*	180*
Employment Status <sup>C</sup>	(11)												080
Mean		1.81	1.71	1.51	1.51	.15	.94	1.54	.05	0.0	4.16	.65	.37
Standard Deviation		.67	.70	.49	.50	. 35	1.01	.55	2.20	2.22	1.71	.48	.48

 $<sup>\</sup>overline{A_1}$  = male; 2 = female

 $<sup>^{\</sup>rm B}$ dichotomized to correct for nonlinearity (18 to 59 = 0; over 59 = 1)

C<sub>0</sub> = not employed; 1 = employed

 $<sup>\</sup>begin{array}{l} D_{\text{Race--0}} = \text{white; 1 = nonwhite} \\ *p < .001 \end{array}$ 

protective behaviors. Each of these variables will be discussed briefly below in terms of its relationship with the others.

Not only was "estimates of personal danger" the most highly correlated with personal protective behaviors, but it too was correlated with nine of the remaining ten variables. These correlations are a function of the central role of this variable. While the other five variables in the conceptual framework concern the environment. other people, and personal vulnerability, the evaluation that one would not be safe alone outside is highly suggestive that precautions should be taken to protect oneself from that danger. These correlations are supportive of the placement of this variable as a mediator between personal protective behaviors and the others. That is, one role of these other variables will be to define the situation for the respondent in terms of personal safety. "Estimates of personal danger" was also significantly correlated with employment status, education, race, and social integration. In general, these correlations parallel those for protective behaviors and may be due to a common source such as context (cf. Furstenberg, 1972). Each of these variables will be discussed below.

Sex was related to only two substantively important variables. It was strongly correlated with protective behaviors (r = .407), and also significantly related to "estimates of personal danger" (r = .267). The relative magnitude of these correlations parallels that obtained by Furstenberg (1972). Women are somewhat more likely to feel unsafe but are considerably more likely to take personal protective measures.

Sex was not related to either of the informational variables or assessments of environmental danger. These results reinforce the use of sex as an indicator of vulnerability or sensitivity to threat. While women do not differ from men in the amount of crime information received or assessments of environmental danger, they do differ in the impact those variables have on their lives. They feel less safe than men and are more likely to take protective actions. The strength of the correlation between sex and these two variables, combined with the independence of this variable from the others, suggests that sex should make a significant independent contribution to both of these variables after other independent variables have been controlled.

The second indicator of personal vulnerability, age  $^{l}$ , was significantly correlated with three substantively important variables: personal protective behaviors (r = .249), estimates of personal danger (r = .213), and assessments of environmental danger (r = .092). Although age is significantly related to assessments of environmental danger, the absolute size of the coefficient suggests that it may prove to be spurious when other variables such as sex or estimates of personal safety are controlled. Age was also related to stability (r = .329), education (r = -.262), and employment status (r = -.383).

The tests of linearity performed for the effect of all independent variables on personal protective behaviors, indicated that age had a significant nonlinear component. Further, investigation of the form of this relationship indicated that it was basically a step function. Very little variation in the extent of personal protective behaviors was present for respondents between 18 and approximately 60. However, those respondents over 60 reported taking considerably more protective action. This is comparable to the effect noted by Skogan (1978). As a result, age is treated here as a dichotomy (18-59 vs. 60 or over).

It should surprise no one to find that those respondents age 60 or over are residentially more stable, less educated, and more likely to be unemployed (or retired) than younger respondents. While these coefficients are not substantively interesting, they do suggest that age may explain the effect of these variables on protective behaviors.

"Assessments of environmental danger" was related to both estimates of personal danger (r = .452) and personal protective behaviors (r = .248). The relative magnitude of these coefficients is consistent with the revised conceptual framework presented in Chapter One. However, the strong relationship between the two estimates of danger suggests that the correlation between assessments of environmental danger and protective behaviors may be spurious. The moderately strong correlations between this variable and the two informational variables supports the thesis that assessments of environmental danger is an important mediating variable between the informational measures and both protective behaviors and estimates of personal safety. Finally, this variable was significantly related to the measure of social integration (r = -.116) and employment status (r = -.123). The former may be interpreted in view of the "familiarity" or support systems hypothesis presented in Chapter One, while the latter may be due to demographic (e.g., age) or ecological variations. Each of these will be discussed below.

Both "informational" measures were moderately intercorrelated (r = .288) and exhibited similar patterns of significant coefficients.

Each was correlated with assessments of environmental danger, estimates

of personal danger, and personal protective behaviors. As anticipated, they were most closely related to the first of these three, suggesting the mediating role of this variable. Interpersonal communication of crime was also significantly related to stability (r = .108), indicating a possible social network effect. However, this variable was not related to social integration, as such an interpretation might suggest. Finally, "environmental cues" demonstrated a weak but significant correlation with education (r = -.175) and a weak correlation with race (r = .096).

Of the five variables included in the analysis but not explicitly considered by the conceptual framework, three produced surprisingly strong correlations with personal protective behaviors. Employment status (r = -.249), education (r = -.233), and race (r = .198) were all related to protective behaviors. Unemployed, uneducated and nonwhite respondents were all more likely to report protective behaviors. Skogan and Maxfield (1980) have suggested that the effect of employment status is due to role constraints which restrict the ability of those with jobs to implement protective behaviors. However, the correlation of this variable with both sex (r = .228) and age (r = .383) suggests that the effect of employment status on protective behaviors may be spurious and due to the effects of these other demographic variables. The effects of all three of these variables (education, employment status, and race) may be attributable to ecological variations within the cities being studied. As a result of general social processes, the unemployed, uneducated, and nonwhite residents tend to be sorted out

and grouped together residentially into areas which also tend to have more violent crime. Thus, it may be that when "place of residence" is controlled, these correlations will reduce to zero. This hypothesis will be investigated in the fourth section of this chapter.

The effects of place of residence, as defined by city in this portion of the analysis, were examined separately. This separate analysis was necessitated by the categorical nature of this variable. City of residence was recoded into "dummy" variates and a multiple regression analysis performed. The results indicated that city has no effect on protective behaviors ( $R = .071 \quad F_{(2,1152)} = 2.9; p>.05$ ). This finding is similar to that reported by Garofalo (1977b) and consistent with the expectations of this research. If place of residence is to have any effect on personal protective behaviors, it would be expected to occur at a much more local level. As will be demonstrated later in this chapter, this is, indeed, the case.

This section has examined the zero-order correlates of personal protective behaviors. The correlations of 11 potential independent variables with personal protective behaviors, as well as the intercorrelations among these variables, were examined. As expected, each of the six variables specified by the conceptual framework outlined in Chapter One were significantly related to the dependent variable, with the theoretically most proximate (estimates of personal danger, sex, age) demonstrating the largest coefficients. Also as predicted, "assessments of environmental danger" was most closely correlated with estimates of personal danger and the two "informational" measures.

Employment status, education, race, and residential stability were also significantly correlated with personal protective behaviors. It was hypothesized that these relationships could be accounted for by demographic (sex, age) and ecological variables.

## Specifying Zero-order Correlations

It was suggested both in the preceding section and in Chapter One that several of the zero-order correlations may be spurious. That is, when a third (or fourth) theoretically relevant variable is controlled, the coefficient for the original variate will reduce to zero. Only those variables which withstand such controls need be considered in a multivariate analysis of a given dependent variable. It must be noted that the selection of control variables should never be indiscriminant but always guided by substantive concerns. In addition, such an informed analysis will serve to clarify the nature of interrelationships between the variables. This section examines the partial correlations for those variables found to be significantly related to personal protective behaviors in the preceding section.

In Chapter One, it was suggested that the principal role of crime related information was to provide the basis on which to evaluate the threat posed by crime. This implied that the informational measures would be related to personal protective behaviors, but when the mediating evaluative variables were controlled, this relationship would prove to be spurious. This hypothesis was reiterated in the preceding section when the zero-order coefficients between the informational

variables and the evaluative measures were observed to be considerably stronger than those between the former and personal protective behaviors. The partial correlations for the two informational variables are discussed below.

Table 3.2 presents these partial correlations. The coefficient for "interpersonal communication" is reduced considerably but is still significant when "assessments of environmental danger" is controlled. However, when "estimates of personal danger" is controlled, the interpersonal communication of crime information is no longer significantly related to personal protective behaviors. Similarly, the coefficient for "environmental cues" is reduced to nonsignificance when either of the evaluative variables is controlled. Neither of the informational variables has an effect on personal protective behaviors independent of the two evaluative variables. As posited in the first chapter, their principal impact would appear to be on judgments concerning the threat of crime. In order for crime information to be translated into action, it must be evaluated in terms of either environmental danger or a personal threat to the individual.

In the previous section, it was suggested that the correlation between assessments of environmental danger and personal protective behaviors might also be spurious when "estimates of personal danger" was controlled. This proves to be the case. When "estimates of personal danger" is controlled, the partial correlation between the other two variables is not significant  $(r_{12.3} = .038; p > .01)$ . The primary impact of assessments of environmental danger is on estimates

Table 3.2 Correlations Between Crime Related Information Variables and Personal Protective Behaviors Controlling for Assessments of Environmental Danger and Estimates of Personal Danger (N = 1336)

Control	Interpersonal Communication of Crime Information	Environmental Cues
Zero-order Correlation <sup>A</sup>	.166*	.118*
Assessments of Environmental Danger	.073**	.012
Estimates of Personal Danger	.022	001
Both "Environmental" and "Personal" Estimates	.014	012

ADue to listwise deletion of cases resulting in varying N, the reported coefficients may differ from those presented in Table 3.1.

<sup>\*</sup>p <.001

<sup>\*\*</sup>p<.01

of personal safety rather than personal protective behaviors. As with the informational measures, in order for assessments of environmental danger to be translated into protective behaviors, it must first be judged a personal threat.

The two variables employed as indicators of personal vulnerability, sex and age, continue to demonstrate significant relationships with personal protective behaviors when other relevant variables are controlled. The coefficients presented in Table 3.3 show that, although controlling for estimates of personal danger does reduce the effect of each measure somewhat, both age and sex have a significant independent impact on personal protective behaviors. Women are more likely to report taking these measures than men regardless of age or estimates of personal danger. Similarly, those over 60 are more likely to take such precautions regardless of sex or assessments of personal danger.

Assessments of personal danger was posited as the variable most central to an understanding of personal protective behaviors. As such, the relationship between the two variables should remain unaffected when other variables are controlled. Statistically, several variables could potentially affect this relationship, but have been interpreted as having no independent effect on personal protective behaviors (e.g., environmental cues, assessments of environmental danger). Theoretically, at least, only sex and/or age could affect this coefficient. The partial correlations reported in Table 3.4 indicate little change from the zero-order coefficient. "Estimates of personal danger" does have a strong effect on personal protective behaviors independent of the sex or age of the respondents.

Table 3.3 Partial Correlations Between Indicators of Vulnerability and Personal Protective Behaviors (N = 1260)

Control	Sex	Age
Zero-order Coefficients <sup>A</sup>	.414*	.251*
Estimates of Personal Danger	.335*	.168*
Sex		.229*
Age	.402*	
Estimates of Personal Safety and Sex		.162*
Estimates of Personal Safety and Age	.332*	Thursday (1997)

ADue to listwise deletion of data resulting in varying N, the reported coefficients may differ from those presented in Table 3.1.

<sup>\*</sup>p <.001

Table 3.4 Partial Correlations Between Estimates of Personal Danger and Personal Protective Behaviors (N = 1260)

Control	Estimates of Personal Danger
Zero-order Correlation <sup>A</sup>	.472*
Age	.440*
Sex	.410*
Age and Sex	.380*

ADue to variable N produced by listwise deletion of data, the reported coefficient may differ from that reported in Table 3.1.

<sup>\*</sup>p<.001

Finally, four additional variables, education, employment status, stability, and race demonstrated significant zero-order correlations with personal protective behaviors. It was hypothesized in the preceding section that the correlations of these variables may be due to their relationships with sex and age, as well as ecological sources of variation. It was pointed out that the latter effect (of ecological variables) cannot be tested with the citywide data. The partial correlations for these variables controlling for sex and age are presented in Table 3.5. Only the relationship between stability and personal protective behaviors is reduced to zero by controlling sex and/or age. Because sex, age, and estimates of personal danger are the principal correlates of protective behaviors, the latter was added as a control, and the joint effect of controlling all three is also presented in Table 3.5. The addition of this third control variable reduced the already low coefficient for employment status to nonsignificance. However, both education and race are correlated with protective behaviors independent of these controls and will be considered in the multivariate analysis presented in the next section.

This examination of partial correlations has indicated that only five of the ten variables significantly correlated with personal protective behaviors were found to be independently related when other variables were controlled. Estimates of personal danger, sex, age, education and race all demonstrated significant partial correlations. The effects of the informational variates (interpersonal communication of crime related information and environmental cues) were mediated by

Table 3.5 Partial Correlations for Education, Employment Status, Stability, and Race (N = 1153)

Control	Education	Employment Status	Stability	Race
Zero-order Correlations <sup>A</sup>	241*	246*	.110*	.180*
Sex	222*	178*	.105*	.177*
Age	185*	165*	.026	.208*
Sex and Age	170*	097*	.027	.203*
Sex, Age, and Estimates Of Personal Safety	126*	062	.055	.168*

 $<sup>^{\</sup>mbox{\sc A}}\mbox{\sc Due}$  to varying N's, these coefficients may vary from those presented in Table 3.1.

<sup>\*</sup>p<.001

the evaluative variables (assessments of environmental danger and estimates of personal danger), while estimates of personal danger accounted for the relationship between assessments of environmental danger and protective behaviors. Similarly, the effect of stability was diminished when age was controlled, and the impact of employment status was accounted for by the joint control of sex, age, and estimates of personal danger.

## Comparative Analysis: Three Cities

One of the major goals of this research was to investigate the role which context may play in understanding personal protective behaviors. In Chapter One, two possible effects were suggested. The first was a simple additive effect; that is, residents in some contexts would be more likely to take protective action than those in other areas after other variables have been controlled. A second possibility was that context could specify the nature and strength of the relationships between the independent and dependent variables. In such a situation, the correlates of personal protective behaviors would be contextually In this section, "city" is viewed as a source of contextual determined. variation. It was established earlier in this chapter that "city" has no independent additive effect on personal protective behaviors. In the three cities being studied here, the level of such behavior is relatively constant. This section addresses the second, and theoretically more problematic, of the two effects. First, the multivariate

analysis of the previously identified correlates of protective behaviors is presented. Then, the identified coefficients are tested for similarity across the three cities.

"Personal protective behaviors" was regressed on the five correlates identified earlier as having independent effects on this variable. These were: estimates of personal danger, sex, age, education, and race. The results of this analysis are presented in Table 3.6. Unstandardized regression coefficients are included in order that comparisons may be made with the results obtained later in this chapter from the neighborhood samples. Each of the covariates contributes significantly to the equation. As expected, the standardized coefficients for estimates of personal danger and sex are the largest. Overall, the linear combination of these five variables accounted for a moderately high proportion of the variance in personal protective behaviors ( $R^2 = .358$ ). The magnitude of this value can be compared to the  $R^2$  of around .10 with  $\underline{22}$  independent variables reported by Wilson (1976:123).

The question concerning the applicability of a common effect within each of the three cities (i.e., Do the variables operate similarly in all three cities?) was addressed next. In regression terms, this involves a test of the differences between the regression coefficients for the three cities. In more standard terminology, this is a test for a common slope. It must be determined whether individual regression coefficients should be calculated for each city, or a common coefficient may be used to represent the effect of each variable

Table 3.6 Regression Coefficients for the Regression of Personal Protective Behaviors on Five Covariates: City Samples (N = 1216)

		<del></del>
	Unstandardized Regression Coefficients (Standard Error)	Standardized Regression Coefficients
Estimates of Personal Danger	.322 (.024)	.338*
Sex	.389 (.032)	.289*
Age	.241 (.046)	.128*
Education	032 (.010)	083*
Race	.173 (.033)	.124*
Constant	.351 (.111)	
$R^2$		.358

<sup>\*</sup>p<.001

across cities. As described in Chapter Two, the need for unique coefficients can be identified rather simply with regression analysis through the analysis of interactions. If a covariate and a factor interact, the effect of the covariate varies by category of the factor, and the regression coefficient for the covariate is specified by the categories of the factor. For example, if sex and city are found to interact in their effect on estimates of personal danger, then the effect of sex varies by city, and a unique coefficient must be estimated for each city in order to accurately represent the effect of sex. Of course, eventually the characteristics of cities which affect this coefficient should be identified and incorporated into the conceptual framework (See Przeworski and Teune, 1970). For more detail on the statistical characteristics of this procedure, the reader is referred to Chapter Two or Kerlinger and Pedhazur (1973:231-280).

The gain in prediction achieved by considering separate coefficients by city for each of the independent variables is presented in Table 3.7. This procedure produces no significant increase for estimates of personal danger, sex, education, or race. Each of these variables can be said to affect personal protective behaviors similarly in each city, obviating the need for unique coefficients. In other words, the hypothesis of a common slope cannot be rejected for these variables. However, this hypothesis can be rejected for age. The data presented in Table 3.7 indicate that the effect of age does vary by city. This effect is statistically significant (p<.05) but very small. The nature of this variation and a potential explanation are offered below.

Table 3.7 Contribution of Unique Coefficients for Major Independent Variables: City Samples

	R <sup>2</sup>	Gain in R <sup>2</sup> Over Additive Model	F <sup>A</sup>
Full Additive Model	.358		
Considering Unique City Coefficients for:			
Estimates of Personal Danger	.359	.001	.763
Sex	.358	.000	.264
Age	.362	.004	3.835*
Education	.359	.001	.650
Race	.359	.001	.556

 $A_{d.f.}$  for all tests 2; 1208; N = 1216

<sup>\*</sup>p<.05

The source of this variance may be identified by examination of coefficients for the regression of personal protective behaviors on age calculated separately for each city. These coefficients are presented in Table 3.8. They show considerable variation, with the coefficient in San Francisco being approximately twice that in either Chicago or Philadelphia. The much stronger effect of being old in San Francisco on personal protective behaviors appears to be primarily responsible for rejecting the hypothesis of a common slope.

Evidence presented in a preliminary analysis of these and other data suggests that there may be a very real reason for the above effect (Reactions to Crime, 1978). Analysis of National Crime Survey victimization rates for the three cities indicated that the elderly in San Francisco suffer unusually high victimization rates for robbery when compared to Chicago and Philadelphia. This analysis reported that:

Rates for robbery and purse snatching also fit the national pattern, albeit with considerable emphasis on the victimization of the elderly in San Francisco . . . where the upturn in personal theft rates among the elderly is tremendous (1978:26).

Thus, at the time of the survey, crime posed a special threat to the elderly of San Francisco. The stronger effect of age in that city may be interpreted as a response to the greater threat of victimization faced by the elderly of that city. It is not being suggested that

There are two equivalent ways to calculate these coefficients. Separate regression equations may be calculated for each category (in this case cities) and appropriate coefficients obtained, or they may be calculated directly from the full equation with the dummy variates. The reader is referred to Kerlinger and Pedhazur (1973:251-255) for a detailed discussion of this point.

Table 3.8 Unstandardized Regression Coefficients for Age by City

City	Unstandardized Coefficient <sup>A</sup>
Philadelphia	.1416
Chicago	.2125
San Francisco	.3561

Amultivariate coefficients with other four independent variables controlled.

victimization rates directly affect protective behaviors. Rather, it is more likely that unusually high victimization rates affect personal protective behaviors indirectly through the communication of crime information. Unspecified high crime rates may affect all groups equally. However, when it is known that a particular group is highly victimized, it seems plausible that this group would take disproportionately greater protective actions.

In summary, five variables, estimates of personal danger, sex, age, race, and education were all significantly and independently related to personal protective behaviors. Together, they accounted for 35.8 percent of the variance in the dependent measure. The hypothesis of a common slope was tested for all five of these variates and rejected only for age. The effect of age on personal protective behaviors was found to vary significantly between cities, but the differences were small. This was attributed to the considerably larger coefficient for age in San Francisco. An explanation was posited in terms of the higher victimization rates for the elderly in that city.

# Comparative Analysis: Neighborhoods

In this section, an attempt is made to replicate the results obtained from the city samples, on data collected from several neighborhoods which were selected for their distinct characteristics. If the conceptual framework is to be useful, it must be generally applicable, especially in neighborhoods, where most ameliorative crime related programs are focused. An analysis conducted on neighborhood

samples controls much of the contextual "noise" operating in metropolitan or national surveys, while also providing a wide range of environmental conditions.

Although the entire analysis conducted above was replicated for these samples, it will not be reported in detail here. The zero-order correlations are presented, but only coefficients which diverge from those reported earlier are discussed. Similarly, only those partial correlations are presented and discussed which would alter the later analysis. A multivariate model will then be presented and discussed in terms of the earlier results. Finally, the similarity of the obtained regression coefficients are tested across neighborhoods.

The zero-order correlations for these data are presented in Table 3.9. In general, they are of the same magnitude and rank order as those presented in Table 3.1. However, two coefficients are worth noting. Neither stability nor race is significantly related to personal protective behaviors. In the earlier analysis, the effect of stability was spurious, but race was one of the principal correlates of the dependent variable. It seems plausible that the added control on ecological variations provided by these data affected these correlations. Both variables, but especially race, tend to be distributed ecologically in a manner roughly similar to that of crime. When that variation is even partially controlled, as in the case here, the coefficients prove to be spurious. That is, in the city samples, nonwhites were more likely to take protective measures because they were also more likely to live in dangerous areas.

Table 3.9 Zero-order Correlations, Means, and Standard Deviations for Major Variables: Neighborhood Samples (N = 1336)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12) <sup>D</sup>
Personal Protective Behaviors	(1)		.466*	.261*	.446*	.183*	.153*	.168*	.047	043	183*	200*	.050
Estimates of Personal Danger	(2)			.456*	.301*	.166*	.277*	.327*	.018	157*	185*	133*	.042
Assessments of Environmental Danger	(3)				.088*	.049*	.488*	.489*	046	180*	.012	003	053
Sex <sup>A</sup>	(4)					.016	.032	.044	005	.053	127*	199*	004
Age <sup>B</sup>	(5)						014	083*	.345*	.062	247*	306*	081*
Interpersonal Communication of Crime	(6)							.321*	.055	001	.043	.009	079
Environmental Cues	(7)								092*	042	110*	014	.080
Stability	(8)									.357*	190*	103*	125*
Social Integration	(9)										142*	090*	.037
Education	(10)											.292*	096*
Employment Status <sup>C</sup>	(11)												016
Mean		1.92	1.77	1.61	1.52	.13	1.12	1.66	.44	.18	3.76	.62	.35
Standard Deviation		.65	.71	.53	.50	. 34	1.07	.59	2.25	2.12	1.72	.48	.48

A<sub>Males</sub> = 0; Females = 1

 $<sup>^{</sup>B}$ under 60 = 0; 60 and over = 1

Cnot employed = 0; employed = 1

 $D_{Race--0}$  = white; 1 = nonwhite

<sup>\*</sup>p<.001

Of those variables demonstrating significant zero-order correlations, only the coefficients for estimates of personal danger, sex, age, and assessments of environmental danger remain significant when other variates are controlled. The effects of interpersonal communication of crime related information and environmental cues are both mediated by the two evaluative variables as for the previous analysis. The remaining variable, employment status, was not significantly correlated (p>.001) with the dependent measure when the other major covariates were controlled.

The analysis of the partial correlations suggested a multivariate model of the correlates of personal protective behaviors which was at variance with that constructed earlier, but which more closely corresponded to the conceptual framework presented in Chapter One. The results of this analysis are presented in Table 3.10. As was the case earlier, estimates of personal danger and sex contribute most strongly to this model. The total  $R^2$  (.328) is very similar to that presented earlier ( $R^2$  = .358) but somewhat smaller. The principal difference lies in the absence of race and education as predictor variates and the presence of assessments of environmental danger.

The ability for neighborhood of residence to contribute to the above equation was tested next. This procedure is commonly referred to as a test for a common intercept, but the imagery may be misleading. Statistically, the question concerns the ability of neighborhood of residence to predict personal protective behaviors after the major covariates have been controlled. These results are reported in

Table 3.10 Regression Coefficients for the Regression of Personal Protective Behaviors on Four Covariates: Neighborhood Samples (N=1622)

	Unstandardized Regression Coefficients (Standard Error)	Standard Regression Coefficients		
Estimates of Personal Danger	.280 (.022)	.308*		
Sex	.433 (.028)	.322*		
Age	.257 (.040)	.132*		
Assessments of Environmental Danger	.116 (.028)	.094*		
Constant	.554 (.058)			
R <sup>2</sup>		.328		

<sup>\*</sup>p < .001

Table 3.11 which shows that this factor does contribute significantly to the equation. People in some of the neighborhoods studied here are more likely to employ personal protective behaviors after the other four covariates have been considered. When the sources of this variation were examined more closely, these differences were found to be due largely to the higher level of protective behaviors in two of the six neighborhoods, Wicker Park in Chicago and Visitacion Valley in San Francisco. Hauser (1970) has eloquently demonstrated that the interpretation of such an effect is by no means clear-cut. While it is tempting to suggest that the effect is evidence of a contextual effect in these two areas, he suggests that a plausible rival hypothesis is that the model has been incompletely specified, and there may be additional individual level variables which would account for such variation. The interpretation of this effect will be discussed in more detail in the next chapter.

Table 3.12 reports the results of the tests for a common slope. The results are positive for all four covariates. That is, the hypothesis of a common slope cannot be rejected for any of the variates. Three of the four F-scores do not exceed one. The fourth, for age, exceeds one, but does not approach statistical significance. This is evidence that the effect of age varies somewhat more acorss neighborhoods than the others, but not enough to merit the use of unique regression coefficients. Place of residence, as defined here, is not an important consideration in determining the effects of the four principal correlates of personal protective behaviors.

Table 3.11 Neighborhood of Residence as a Predictor of Personal Protective Behaviors

	R <sup>2</sup>	Gain in R <sup>2</sup> Over Additive Model	F <sup>A</sup>
Original Equation	.328		
Original Equation With Neighborhood of Residence	.343	.016 <sup>B</sup>	7.72*

 $A_{d.f.} = 5, 1612; N = 1622$ 

 $<sup>^{\</sup>rm B}{\rm Difference}$  between R $^{\rm 2}$ 's before rounding

<sup>\*</sup>p<.01

Table 3.12 Tests for Common Slope of Four Principal Correlates: Neighborhood Samples

	R <sup>2</sup>	Gain in R <sup>2</sup> Over Additive Model	F <sup>A</sup>
Additive Equation <sup>B</sup>	.343		
Addition of Unique Coefficients in Each Neighborhood for:			
Estimates of Personal Danger	.346	.003	.702
Sex	.345	.002	.562
Age	.348	.005	1.350
Assessments of Environmental Danger	.345	.002	.524

 $A_{d.f.} = 9, 1607; N = 1622$ 

 $<sup>^{\</sup>rm B}{\rm Regression}$  of personal protective behaviors on estimates of personal danger, sex, age, assessments of environmental danger, and neighborhood of residence.

In summary, most of the zero-order correlates for the neighborhood samples were similar to those derived from the city samples. However, race was not related to personal protective behaviors. This was interpreted as being due to the ecological covariation of race and crime. The partial correlations indicated that the principal correlates of the dependent variable were those described in the conceptual framework: estimates of personal danger, sex, age, and assessments of environmental danger. The multivariate analysis indicated that place of residence (neighborhood) was an additional source of variance. Together, these five variables accounted for 34.3 percent of the variance in the dependent measure. The test for a common slope indicated that each variable had a similar effect in the six neighborhoods. Thus, the thesis of contextual specification was not supported for these samples. The implications of these results are examined in the following chapter.

# Summary

This chapter has investigated the viability of the conceptual framework outlined in Chapter One. Consistent with that framework, the analysis has been multivariate and comparative. The impact of eleven variables on personal protective behaviors was investigated. Six of these were explicitly considered in the conceptual framework, while the remaining five were suggested by previous studies and hypothesized to have spurious effects on personal protective behaviors when other relevant sources of variation were controlled. A multivariate analysis was

performed for data collected in three cities and six neighborhoods within those cities. Comparisons were made between the aggregate units (cities and neighborhoods) to test the comparative hypotheses concerning the potential additive and interactive effect of context.

The analysis of data at both levels indicated basic support for the proposed conceptual framework. These results are summarized in Table 3.13. For the samples drawn from the three cities, estimates of personal danger, sex, and age were all predictive of personal protective behaviors. Only assessments of environmental danger was hypothesized to have a significant direct effect on the dependent variable but did not. The remaining two variables included in the conceptual framework, interpersonal communication of crime information and environmental cues demonstrated significant zero-order correlations with protective behaviors but, as hypothesized, these correlations were accounted for by the mediating effects of the two indicators of subjective evaluations of danger.

In addition to the above three variables, both race and education were also predictive of personal protective behaviors. Nonwhite and uneducated respondents were both more likely to report protective behaviors after sex, age, and estimates of personal danger had been controlled. It was suggested that the contribution of these variables was the result of ecological processes that tend to sort the above two groups into areas which are also more dangerous. When the sampling focus is broad (e.g., city or nation), these processes produce a spurious effect of these variables. The implication of this interpretation

Table 3.13 Summary of Multivariate and Comparative Analyses

	Cities	Neighborhoods
Variables Defined by Conceptual Framework: Estimates of Personal Danger Assessments of Environmental Danger	χΑ	X X
Sex Age	X X	X X
Interpersonal Communication of Crime Information Environmental Cues		
Other Variables Included in Analysis: Race Education Employment Status Residential Stability Social Integration	X	
Additive Effect of Context		<b>X</b>
Interactive Effect of Context	$\chi^{B}$	

 $<sup>^{</sup>A}$ Entries indicate a statistically significant (p<.001) multivariate effect on personal protective behaviors.

 $<sup>^{\</sup>mathrm{B}}$ Age by city (p<.05)

is that when the above ecological processes are controlled by collecting data in more socially homogeneous areas, neither race nor education should be related to personal protective behaviors. This expectation was confirmed by the analysis of the data collected in the six neighborhoods (column two, Table 3.13).

The comparative analysis of the cities indicated no additive effect of this variable. That is, the level of protective behaviors was relatively constant in all three cities. This finding is consistent with prior research (Garofalo, 1977b), and suggests that if there are significant ecological variations in personal protective behaviors, they occur at a level more proximate and meaningful to the individual.

Further comparative analysis indicated that the effects of four of the five above named correlates of protective behaviors were basically the same in all three cities. However, the effect of age was found to vary by city, with the effect of this variable being much stronger in San Francisco. This was interpreted as being due to the special threat posed by crime to the elderly of that city. That is, much as Conklin (1975) posited crime rate as the contextual variable producing his "threshold effect," it was proposed that unusually high crime rates for a given population could produce similarly high rates of personal protective behaviors for that subgroup. This would indicate that the special patterns of victimization within an area may be a significant consideration in understanding either these behaviors, or the effects of demographic characteristics on them.

A parallel analysis of the data collected in six more homogeneous neighborhoods within the above cities was also performed. While in general correspondence with both the conceptual framework and the initial analysis, some variations are worth noting. In addition to estimates of personal danger, sex, and age, as originally suggested, assessments of environmental danger demonstrated a significant independent effect on personal protective behaviors in this analysis. These four variables defined by the conceptual framework were the only ones to withstand multivariate controls. As noted earlier, neither race nor education were correlated with personal protective behaviors in these samples. This was interpreted to be a result of the added control on ecological processes produced by the data collected in more homogeneous settings.

The comparative analysis of neighborhoods produced different results than that for the three cities. This analysis indicated that neighborhood does have an additive effect beyond the four individual level variables. That is, the respondents in some neighborhoods reported significantly more personal protective behaviors even after the other variables were controlled. This indicates that either the theoretical framework has been incompletely specified, or there are locally defined contextual variables operating to produce this effect. Finally, the effects of all four variables were found to be similar in all six neighborhoods. As an aside to this result, it might be noted that the effect of age showed some tendency to vary, but these differences were not statistically significant.

In summary, this chapter has presented a comparative analysis of the correlates of personal protective behaviors. The results demonstrated the viability of viewing personal protective behaviors as a response to the threat of victimization. As defined by the above perspective, the principal correlates were indicators of personal vulnerability and subjective assessments of danger. In addition, several types of contextual variation were identified.

#### CHAPTER IV

### CONCLUSIONS

Residents of the inner city, at one time or another, most residents of urban areas must be concerned about their personal safety on the streets of their neighborhood. Chronically high crime rates pose a real and constant threat to individual safety. In response to this threat, individuals attempt to establish means of ensuring safe passage. Such efforts can take many forms and involve a considerable range of effort and organization (See DuBow et al., 1978). These actions pose a serious threat to the quality of life and have differing implications for informal social control in an area. This research has focused on individualized actions which are easily implemented and directed at reducing the chances of violence at the hands of a stranger, but which also tend to discourage interaction and may reduce social controls.

In Chapter One, a conceptual framework for understanding these actions was presented. Chapter Two described the data, while Chapter Three presented the results of the data analysis. In this chapter, the conclusions which may be drawn from this research are presented and their implications for future research discussed.

The principal goal of this research was to develop and test a conceptual framework for understanding personal protective behaviors.

This conceptual framework, presented in Chapter One, posited that personal protective behaviors were purposive actions directed at reducing the threat of violence at the hands of a stranger. This perspective suggested that the principal correlates of protective behaviors would involve subjective estimates of danger and personal vulnerability. A more indirect role was hypothesized for crime related information as inputs shaping the estimates of danger. Finally, this framework suggested that contextual variables, that is, local environmental characteristics, might have important consequences for the correlates of protective behaviors.

It may be concluded that the individual level correlates of personal protective behaviors are generally as predicted in Chapter One. While amost all of the variables considered were initially related to protective behaviors, after appropriate controls were applied, the major correlates of these actions were: estimates of personal danger, sex, age, and assessments of environmental danger. The effects of the two crime related information variables were mediated by the indicators of subjective assessments of danger. In the city samples, race and education were also related to protective behaviors, but as is discussed below, this was the result of homogeneous groupings. Thus, the behaviors studied here are, indeed, responsive to the threat of crime. Those residents who are threatened most by the possibility of victimization are more likely to engage in personal protective behaviors than those less threatened.

The above conclusion stands in contrast to that reported by Wilson (1976). In his research he concluded, much like the early studies of "fear of crime," that those who have the least to fear are most likely to engage in personal protective actions (1976:145). However, upon closer inspection, these conflicting conclusions may be seen as a function of the behaviors studied. These differences are reflective of Furstenberg's (1972) distinction between "avoidance" and "mobilization" behaviors. The former were found to be related to variables similar to those studied here, while the latter actions were related only to income and prior victimization. That is, avoidance techniques were responsive to threat, but the expense and effort involved in the deployment of mobilization measures make them dependent upon the resources available for their implementation and extremes of The behavioral actions studied by Wilson were more similar to "mobilization techniques," while those investigated here resemble avoidance measures. Rather than conflicting results, these two studies have served to reinforce the viability of the distinction offered by Furstenberg (1972).

Sex and age were two of the principal correlates of personal protective behaviors, with women and respondents over 60 engaging in more protective actions regardless of their estimates of personal danger. It was argued in Chapter One that these variables were reasonable proxies for vulnerability to personal victimization. However, vulnerability may not be the only concept represented by these two variables. Their effect may be due to other variables or more likely representative

of a constellation of individual characteristics. Future research should concentrate on a more precise identification of the variables operating to produce such strong sex and age differences.

Assessments of environmental danger did not make an independent contribution to the multivariate equation in the analysis of the city data and had only a small effect in the neighborhood samples. It is probable that these differences are due to the colinearity of this variable and estimates of personal danger. Blalock (1963) has demonstrated that highly correlated independent variables produce unstable partial regression coefficients with unusually large standard errors. In such a situation, even minor variations in the magnitude of the zero-order coefficients can produce variable multivariate solutions. This would appear to be the phenomenon observed in this research. As a result, when both variables are considered as simultaneous predictors of personal protective behaviors, the more remote, assessments of environmental danger, will tend to fluctuate between regions of significance and nonsignificance. Given the theoretically defined importance of this variable in determining the individual's evaluations of personal safety, it would appear that in the future, it may be more productively employed as a predictor of this latter variable.

Race and education had significant independent effects on personal protective behaviors in the city samples, but not in the neighborhood samples. This effect has been observed previously in both the "fear of crime" literature (See Baumer, 1978) and in Furstenberg's (1972) study of avoidance behaviors. As such, it appears to be a

special case of the ecological fallacy originally brought to the attention of social scientists by Robinson (1950). The issue has produced a large number of studies which examine the effects of aggregation. Most generally, the concern has been with specifying the conditions under which between groups (aggregate) correlations are indicative of total (individual) correlations. As Hammond (1973) has demonstrated, under conditions of homogeneous grouping, aggregate coefficients will usually be larger than individual correlations. effect observed here is an example of a related tendency for individual level correlations between variables which show similar ecological distributions to increase proportionately with the heterogeneity of the sample focus (Slatin, 1969). Hence, at the neighborhood level, being nonwhite or poor has little to do with the extent of personal protective behaviors, but when a more heterogeneous sample is considered, the tendency for the above groups to cluster together in areas which are also more dangerous produces a significant coefficient (See the original example offered by Robinson, 1950). Such effects can be seriously misleading and should be accounted for in future research. care should be made to consider the effect which homogeneous groupings may have on such relationships.

One of the major features of this research was a comparative analysis of sample units to discover potential sources of contextual influence. One such source concerned the possible additive effect of context on personal protective behaviors, defined both in terms of city and neighborhood of residence. Not unexpectedly, similar levels of

personal protective behaviors were observed in all three cities, while the neighborhoods demonstrated significantly differing levels of such behaviors. The lack of a significant "city effect" has been observed previously (Garofalo, 1977b). Apparently, at this level, the important source of variation is size of city or urbanization (cf. Clemente and Kleiman, 1977; Boggs, 1971). However, just as many other characteristics vary within cities, so do levels of personal protective behaviors. In some sense, by selecting areas which were highly varied in terms of relevant variables such as crime rate, racial distribution, social class, and community organization, these differences were built into the neighborhood data. If additive areal differences were to be found, they would occur in the data.

While it was tempting to interpret the above neighborhood differences in terms of aggregate or contextual characteristics, two considerations prevented such an interpretation. First, residual subgroup differences are by no means conclusive evidence of the operation of contextual variables (cf. Przeworski and Teune, 1970). Indeed, Hauser (1970) has argued that a more probable source of such variation is an incomplete specification of the relevant individual level variables. Second, with only six neighborhoods, a statistical test of the effects of aggregate characteristics would not be productive. Any variable which would rank-order the six areas in the approximate order of their intercepts would produce a statistically similar effect. Given these considerations, no further investigation of this effect was made. Future research should refine the conceptual framework and

specify the types of contextual variables which are consistent with the framework and might act to produce such an effect.

Finally, the comparative analysis also investigated the hypothesis that the correlates of personal protective behaviors would be contextually determined. Phrased another way, the data were examined to determine if the major variables had consistent effects across cities and neighborhoods. It is this effect which, if identified, would necessitate the inclusion of aggregate characteristics into the conceptual framework (See Przeworski and Teune, 1970:47-74). When the neighborhood data were examined, all correlates were found to have statistically similar effects in every neighborhood. Age showed some tendency to vary, but the effect was not statistically significant. When the city samples were examined, the effect of age was found to vary significantly between cities. Upon closer scrutiny, much of the variation was found to be due to the higher levels of reported protective behaviors among the elderly in San Francisco. This corresponded with unusually high rates of personal victimization for the elderly in that same city. It was suggested that through communication processes, the elderly in San Francisco were aware of the increased probability of victimization and had responded accordingly.

This above explanation may be broadened to include other situations and groups. It may be concluded that when investigating the correlates of personal protective behaviors, the patterns of criminal victimization in the area of interest should be considered. Any spectacular crimes or significant deviations from usual patterns might

affect the impact of selected variables. For example, it might be anticipated that a series of violent attacks on women would increase the sexual differences in the use of personal protective behaviors, while similar attacks on men might reduce these differences. Without taking these circumstances into account, the effect of sex might be seriously over or underestimated. Given this broader interpretation, it may be hypothesized that such special circumstances might also mean that other demographic groups, not found to differ in levels of protective behaviors here, could vary in the extent of their protective actions. Both Yaden et al. (1973) and Lavrakas et al. (1978) have noted that within certain urban neighborhoods whites are more fearful than nonwhites. Such a result may be due to the special circumstances being noted here.

To summarize these conclusions, it may be stated that the major correlates of personal protective behaviors are subjective estimates of personal danger, and personal characteristics related to vulnerability, as measured by sex and age. Assessments of environmental danger, the interpersonal communication of crime information, and the perception of crime related environmental cues are all related to personal protective behaviors, but only through their effects on estimates of personal danger. The comparative analysis indicated that special patterns of criminal victimization may affect the nature of the correlates of protective behaviors. Finally, after all of the major correlates of the dependent variable have been controlled, the residents of some of the neighborhoods studied here still reported more protective behaviors than residents of other areas.

In conclusion, this research was a detailed investigation of a small but significant aspect of urban behavior—the individualized means of ensuring safe passage on urban streets. Unlike some other forms of protective behavior (cf. Furstenberg, 1972; Wilson, 1976), these actions were found to be related to the threat of victimization. A conceptual framework was presented and tested. The major components of that framework—context, crime related information, subjective estimates of danger, and personal characteristics related to vulnerability were all found to contribute to an understanding of personal protective behaviors.

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APPENDIX A

			1
Interviewer's Initials:			
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Job 7842

OFFICE USE ONLY

MOR ID 1-4 Phone 5-11 (Label) Area 12-17(Label)

## Telephone Number

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No Answer/Busy	03	03	03 .	03	03	03	03	03	03	03	03	03
Disconnect/Not in service	04		RETURN	TO//SUR	RVISOR ///		7////////					
Household Refusal	05	05	05	05	05	05	05	05	05	05	05	05
Household Informant Not Avallable/Arrange Call Back	06 Call Back Time:	06 Call Back Time:	06 Call Back Time:	06 Call Back Time:	06 Call Back Time:	06 Call Back Time:	06 Call Back Time:	06 No Call Back			<b>X////////</b>	X///////
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Eligible Respondent Refusal	08	08	08	08	08	08	08	08	0B	08	08	08
filter Out Business	00	09	09	09	03	RETURN	T.0//////S	UPERI	1 S O R/	X/////////////////////////////////////	<i>X////////</i>	<i>N////////////////////////////////////</i>
filter Out Not In City	10	10	10	10	10 .	RETURN/	T O/IIII, S	UPERV	I SOR	X///////////	<i>X/////////</i>	<i>X/]][]]]</i>
Filter Out Wrong Neighborhood SPANISH	. 13	11	11	11	11	KETURH	T O/mus	UPERV	ISOR	<i>¥!!!!!!!!</i>	KILLILL	
return to supervisor	12	12	12	12	12	12	12	12	12	12	12	12
TERMINATE QUESTION /	13	13	13	13	13	13	13	13	13	13	13	13
Other	14	14	14	14	14	14	14	14	14	14	14	14
(Specify)	18-23	24-29	30-35	36-41	42-47	48-53	54-59	18-23	24-29	30-35	36-41	42-47
•	6	0-64 TCB	65-73 MOR	74 Con	t. ID 7	5-76 Cd #	77-80 Job	48-	73 MOR 74	Cont. ID	75-76 Ca	d # 77-80

#### Reactions to Crime/Fear of Rape

#### Telephone Survey

May-I please speak to the man or woman of the house? (ACCEPT ANY RESPONSIBLE ADULT) My name is

I'm calling for Northwestern University near Chicago. We are working on a study about how peoples lives are affected by crime, and I would like to ask you some questions. Of course, your help is voluntary and all your answers will be kept confidential. Your telephone number was picked at random. I. Is this a business phone, or is this a home phone? PHILADELPHIA -- SOUTH PHILADELPHIA II. Do you live within the city limits of Philadelphia? In this survey we need to get the opinion of people who live in the South Philadelphia area. III. Do you live between Horris (on the north) and Packer Avenue (on the south)? IV. Do you live between 5th (on the east) and Vare Avenue (on the west)? (NOTE: PACKER AVENUE IS NORTH OF FOR PARK: VARE AVENUE IS JUST EAST OF THE SCHUYLKILL RIVER.) (IF "DON'T KNOW") Well, can you tell me which street you live on? (IF NOT INCLUCED IN LIST BELOW, FILTER OUT WRONG MEIGHBORNOOD) (READ RANGE FROM LIST, IF NOT IN RANGE, FILTER OUT WRONG NEIGHBORHOOD) YI. Would that address be between STREET . . . . . STREET . . . . . . . . . NUMBER (North-South) (North-South) (East-West) 1700-3000 S Opal Percy Reese 1700-3000 S Barbara 500-3000 Bailey Bambrey Bancroft Barbara
Bigler
Cantrell
Castle
Daly
Dudley
Durfor
Emily
Fitzgerald
Gladstone
Hoffman
Jackson Ringgold Rosewood Sartain Beechwood Reulah Bonsall Bouvier Sheridan Stoker Taney Broad Bucknell Taylor Camac Carlisle Watts Woodstock Sth Chadwick Clarion Johnston HcKean Mcleilan Cleveland Colorado Croskey Darien 6th 7th Mercy Hifflin 8th 9th 10th 11th Moore Morris Moyamensing Dorrance Dover Etting 500-2000 12th 13th Oregon Packer 500-3000 Fairhill Franklin Garnet 14th 15th 16th 17th Passyunk 1200-2600 500-3000 1700-2500 Pierce Hemberger Hicks Point Breeze Ave. Pollock Hollywood Hutchinson Iseminger Jessup 500-3000 18th 19th 20th 21st 22nd 22rd 24th 25th 26th 27th 28th Porter Ritner Roseberry Shunk Juniper Lambers Marshall Sige! Sherer Tree Marston Marvine Mole Vare Walter Watkins Newhope Newkirk Winton 29th

(S3 NOT ASKED)

A) How many adults 18 years of age or older are presently living at home including yourself?

(CIRCLE IN COL. A)

B) How many of these adults are men? (CIRCLE IN ROW B) No. (Write-in)

No. (Write-in)

Row B	Col. A In Hos	nehold N	umber of	Adults
Number of Man In Household	1	2	3	4 or more
0	Woman	Youngest Woman	Youngest Woman	Oldest Wamon
1	Man	Mon	Oldest Comen	Nan
2	X	Oldest Man	Women	Oldest Woman
3	X	X	Youngest Man	Oldesi Verson
4 or more	X	X	X	Oldes

#### Version 2

NOTE: The intersection of Col A and Row B determines the sex and relative age of the respondent to be interviewed

For this survey, I would like to speak to the (Verbal label indicated on grid) currently living at home, in your household. Is he/she at home?

1 ... Yes - Continue with Q. 1 WITH THE CORRECT INDIVIDUAL TO BE INTERVIEWED

2 ... No - Arrange call-back, record on callback line

THE

- A. Para empezar quisiera conocer cuantos adultos de 18 y mas años viven en su familia
- B. Cuantos de ellos son hombres?

(CIRCLE IN ROW B)

Row B	Col. A In Ho	Col. A Number of Adults In Household						
Number of Men In Household	,	2	. 3	4 or more				
0	Wemen	Youngest Woman	Youngest Woman	Oldest Waman				
1.	Mon	Man	Oldest Women	Nan				
2	$\times$	Oldest Man	Vones	Oldest Woman				
3	$\times$	X	Youngast Mon	Woman/ Oldest Woman				
4 or more	X	$\times$	X	Oldest Non				

### Version 2

NOTE: The intersection of Col A and Row B determines the sex and relative age of the respondent to be interviewed

Necesito preguntar a (TOME EN EL CUADRICULADO) (La interseccion de adultos y hombres determina el sexo y la edad relativa de la persona a entrevistar). SI LA PERSONA ELEJIDA NO ESTA EN CASA, HAGA UNA CITA PARA LA ENTREVISTA O PREGUNTE CUANDO ESTARA EN CASA. TOME EL NUMERO DE TELÉFONO Y LLAME PARA HACER LA CITA)

APPENDIX I

Fir	st of all, I have a few questions about yo	ur neighborhood.
1	. In general, is it pretty easy or pretty a stranger in your neighborhood from so	difficult for you to tell mebody who lives there?
		Pretty easy
2.	Would you say that you really feel a part think of it more as just a place to live?	of your neighborhood or do you
		Feel a part 1-22  Place to live 2  Don't know
3.	Would you say that your neighborhood has changed for the better, or for the worse in the past couple of years, or has it stayed about the same?	Better
4.	How many people would you say are usually out walking on the street in front of where you live after dark a lot, some, a few or almost none?	A lot
5.	Do you usually try to keep an eye on what is going on in the street in front of your house or do you usually not notice?	Usually keep an eye on 1 -25 Usually don't notice
6.	If your neighbors saw someone suspicious window what do you think they would do? BELOW MULTIPLE MENTIONS ALLOWED)	trying to open your door or (ASK OPEN END CODE RESPONSE
		Check situation

Don't know . . . . . Not ascertained . .

••			and the state of the state of		44	
11.	DO YOU KNOW O	of any community	groups or grountz	ations in	YOUR BE	abborhood?

	Yes	43
A.	Have you ever been involved with any of those community groups or organizations?	7
8.	Yes	44
1	1st mention	
	Znd mention (EXACT NUMBER) Not ascertained 98	
ŀ	Not ascertained 93 3rd mention Inappropriate 99 .	45-4
	4th mention	1
	(RECORD ALL KAMES MENTIONED)	,  -
	(ASK C-F FOR FIRST 1 ORGANIZATIONS MENTIONED) (ASK FOR FIRST ORGANIZATION MENTIONED IN B)	
61.	From what you know has certained	47-49
	(ASK FOR SECOND ORGANIZATION MENTIONED IN B.)	7
cz.	From what you know has D2. Could you tell me briefly ever tried to do anything activities?  Yes (GO TO D2)	50-52
	(ASK FOR THIRD ORGANIZATION MENTIONED IN 8) (GO TO C3)	
<b>C3</b> .	From what you know has ever tried to do anything about crime in your meighborhood?  Yes (GO TO D3)	53-55
	No	

12.	Do you know of any (other) special efforts or programs going on in your neighborhood to prevent crime?	
<b></b>	Yes	56
Α.	Please describe these efforts or programs and/or their names.	
	Inappropriate9	<b>57-</b> 58 - MOR
13.	In the past year, have you contacted the police to make a complaint about something or to request some kind of help?  Yes	59
Α.	What was your last call to the police about? (ASK OPEN END MULTIPLE MENTIONS ALLOWED CODE BELOW)  Report crime against self	60 61 62 63 64 65 66 67 68

KP - 0 Fill

70-75 MOR 76 Cd # 77-80 Job #

	Cd 2 1-20	-
14.	Have you contacted any public official, other than police, in the past year to make a complaint about something or to request some kind of help?	21
Α.	What was your last call to a public official about? (ASK OPEN END MULTIPLE MENTIONS ALLOWED CODE BELOW)  Report crime against self	22 23 24 25 26 27
	Request ambulance	29 30
	(SPECIFY)  Don't know	31

15. Now, I am going to read you a list of crime-related problems that exist in some parts of the city. For each one, I'd like you to tell me how much of a problem it is in your neighborhood. Is it a big problem, some problem, or almost no problem in your neighborhood? (ROTATE)

	or almost no problem in your neighbor	eighborhoo	d? (ROTAT	g problem, E)	, some problem,	
		A Big Problem	Some Problem	Almost No Problem	(VOLUNTEERED) Not Ascertained/ Don't Know	
a.	agers hanging out on the streets. Is this a big problem, some problem or almost no problem in your					
	neighborhood?	3	2	1	9 .	42
b.	Buildings or storefronts sitting abandoned or burned out. Is this a big					
	problem, some problem, or almost no problem in your neighborhood?	<b>3</b>	2	1	9	43
Ċ.	People using illegal drugs in the neighborhood. Is					•
	this a big problem, some problem, or almost no problem.	3	2	1	9	44
d.	Yandalism like kids break- ing windows or writing on walls or things like that.					
	How much of a problem is this?	3	2 ,	1 .	9	45
16.	Was there ever a time in this when crime seemed to be much lead problem than it is now?	country ess of	No Don't	know		.1-46 2 7 .8
a.	(IF YES) When was that? About (PROBE: JUST A GUESS WILL DO. (OF A SINGLE DATE OR YEARS AGO)	how many GET BEST E	STIMATE Don't Not as	(YEARS AGO know certained	· . <del></del>	97 98 99 47-48
	TERVIEWER: IF GIVEN RANGE RECO	RD BASED O	N MIDDLE	YEAR E.G.	1920-1925=1922;	

-	17.	What about burglary for the neighborhood in general. Is breaking into people's homes or sneaking in to steal something a big problem, some problem or almost no problem for people in your neighborhood?	A big problem 3 -49 Some problem	<del></del>				
	18.	Do you personally know of anyone, other than yourself, whose home or apartment has been broken into in the past couple of years or so?	Yes					
•	а.	Did any of these break-ins happen in your present neighborhood?	Yes	- 51				
	19.	About how many times do you think this might have happened in your immediate neighborhood in the last year? (GET BEST ESTIMATE)	Don't know	52-54				
	20.	(READ SLOWLY) Now we're going to do something a little question, I'd like you to think of a relet the ZERO stand for NO POSSIBILITY At the TEN will stand for it being EXTREMEL happen.	of numbers from zero to ten. Now, ALL of something happening, and					
	a.	a. On this row of numbers from ZERO to TEN, how likely do you think it is that someone will try to get into your own (house/apartment) to steal something. (REREAD INSTRUCTION IF NECESSARY GET BEST NUMBER)						
			on't know 97 ot ascertained 98	55-56				

21.	Has anyone actually broken into your home in (NOTE THIS APPLIES TO ALL RESIDENCES IN LAST	the I	past t (EARS)	wo years?		
•			know scert	ained	• • • • • •	1-57 .2 .7 8
22.	Which of the following three things would yo for keeping your house safe from burglars: or living in a good neighborhood?	u say being	is the	e most imp , being ca	oortant ereful,	
		Being Livin Being (VC Being nei Being All	care g in luck LUNTE luck ghbor care ghbor hree	y/being ca ERED) y/living i nood (VCLU ful/living nood (VCLU	borhood reful n good INTEERED) .	03 04 05 06
			(SPEC: know scert:			08 97 98
23.	I'm going to mention a few things that some prom burglary. As I read each one would you your family does that?	eople pleas	e tel	protect me wheth DLUNTEERED	er or not	
	a. Have you engraved your valuables with your name or some sort of identification, in case they are stolen?	res	<u>No</u>	Don't Know		60
	b. Do you have any bars or special locks on your windows?	1	2	7		61
	c. Do you have a peep-hole or little window in your door to identify people before letting them in?	1	2	7		62
	Now, think of the last time you just went out	at n	ight.			
	d. Did you leave a light on while you were gone?	1	2	7		63
	Now, think of the last time you went away from	n hom	e for	more than	a day or s	o. :
	e. Did you notify the police so they could keep a special watch?	1	2	7		64
	f. Did you stop delivery of things like newspapers and mail, or have someone bring them in?	1	2	7		65
	g. Did you have a neighbor watch your house/apartment?	1	2	7		66

76 Cd # 77-80 Job #

		• •
		Cd 3 . 1+20 ID
24.	How about people being robbed or having their purses or wallets taken on the street. Would you say that this is a big problem, some problem or almost no problem in your neighborhood?	Big problem 3-21 Some problem 2 Almost no problem 1 Don't know
25.	How about <u>yourself?</u> On the row of numb about before, how likely is it in the n will try to rob <u>you</u> or take your purse/neighborhood? Remember TEN means EXTRE POSSIBILITY at all.	ext couple of years that someone wallet on the street in your
		(WRITE IN NUMBER 0-10) Don't know
26.	Do you personally know of anyone, other or had their purse or wallet taken, in someone tried to do this to them?	than yourself, who has been robbed the past couple of years, or if
		Yes
	A. Where did these robberies happen? W hood, someplace else in the city, or	ere they in your present neighbor- out of town?
	First <u>Mentio</u>	
·	Present neighborhood         1-2           City         2           Out-of-town         3           Don't know         7           Not ascertained         8           Inappropriate         9	5 1-26 1-27 2 2 3 3 7 7 8 8 9 9
27.	Besides robbery, how about people being attacked or beaten up in your neighborhood by strangers. Is this a big problem, some problem or almost no problem?	Big problem
28.	How about yourself? On the row of number it that some stranger would try to attach neighborhood in the next couple of years LIKELY and ZERO is NO POSSIBILITY at all	k and beat you up in your present ? Remember, TEN is EXTREMELY
		(WRITE IN NUMBER 0-10)  Don't know

	know?		Tyes		1-
	·		Don't kno	ow	7
	Where did these attacks happen? someplace else in the city, or	Were they iout of town?	in your pre	sent neighbo	rhood,
	. •	First Mention	Second Mention	Third Mention	
	Present neighborhood City Out-of-town Don't know	1-32 2 3	1-33 2 3	1-34 2 3	
	Not ascertained Inappropriate	7 8 9	7 8 9	7 8 9	
	in your neighborhood? Are the or children?	VICCINS MOST			
			Younger Children Any comb	bination of c er people, ch	2 3 older, nildren
			(VOLII)	NTEERED) hear specific NTEERED)	4
			Do not ) (VOLUM No crime Don't kr	e here (VOLUM now	S 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
• .	Are the victims generally male o	r female?	Do not ) (VOLUM No crime Don't kr	e here (VOLUM now	TEERED)6

	(RECORD NUMBER)		Don't Not as	know certained .		. 97 . 98	37 <b>-</b> 38
2.	In the past two weeks, abo your neighborhood for ever somewhere like that? (GET	ninc entert	ainment	to go to a	show or		
	(RECORD NUMBER)			know scertained .			39 <b>-</b> 40
1	Now I have a list of things being attacked or robbed on me whether you personally do	the street.	. As I rea	ad each one	would you	tell	
		Most Of The Time	Some- Times	Almost Never	(VOLUN N.A./ Don't Know	TEERED) Inapp./ Don't Go Out	
h	hen you go out after dark, ow often do you get someone o go with you because of	•					
. H	rime? ow often do you go out by ar rather than walk at	3	2	1	7	8	4
. H	ight because of crime? ow about taking something ith you at night that ould be used for protection	3	2	1	7	8	4:
W H	rom crime like a dog, histle, knife or a gun. ow often do you do some- hing like this?	3	2	1	7	8	4
l. H c	ow often do you avoid ertain places in your eighborhood at night?	3	2	, 1	7	8	4
ld. H	low close to your home is the LOCKS. IF MENTION MORE THAN	place you ONE, RECO	try to av		BEST ESTIM	ATE IN	]
				/ Annu	BER OF BLOO	-K2)	1

٠, .	411	the last week, have	you read any darry ne	:wshah	erst	
				Can '	GO TO Q. 38)	2 3 7
	a.	Which one(s)? (CIRC	LE ALL THAT APPLY)			
		Chicago	Philadelphia		San Francisco	
		Sun Times 11 Daily News 12	(SPECIFY)	.22 .23 .24 .25 .97	Examiner 30 Chronicle 31 Bay Guardian 32 Other	55-5 57-5 59-6 61-6 63-6
38.	Do	you read a <u>local</u> or	<u>community</u> newspaper	regula	arly?	<del></del>
				No . Don't Not a	t know	1-67 2 7 8
39.	Ye	sterday, did you rea	d any stories about c	rime i	in <u>any</u> paper?	
				No . Don't Didn' yes Not a	t know/Can't remember 't read paper sterday (YOLUNTEERED)	

69-75 MOR 76 Cd # 77-80 Job #

	Cd	4	
1	-20	1	In

	cks out in your mind?
	Yes
a.	What crime was that?
b.	What did you read or hear about it? (Crime mentioned)
Sour	didering all the sources you use to get information, what's your best of information about crime in your neighborhood?  CODE RESPONSE BELOW. ONE RESPONSE ONLY)
	Local community paper
	OtherO

42. In the past week or	two have you talked wit	h anyone about crime?	
		Yes	
a. Who have you tal		RST MENTION CNLY)	
We don't want na only the person' relationship to	s Wife/husband/ you. Another famil Someone at wo A neighbor . A friend . Anyone else/o	ther 6	25
. <b>.</b>			
1	Not ascertain	ed 8	
-	maphtohtiace	9	•
43. What about rape and so how frequently has say never, occasiona	s this subject come up	ssault? In the past month or in conversation would you	
	•	Never 1 -26	
		Occasionally 2	
		Very often	
	•	Don't know	
Now I have a few specific assault.	questions about the pro	,	
44. In your neighborhood somewhat of a probl	d, would you say sexual lem, or almost no proble	assaults are a big problem, m at all?	
		Big problem 3-27 Somewhat of a problem	
45. Do you think that the	number of rapes	Up	
in your neighborhood going down or staying same?	is going up,	Down	
			•
46. About how many women raped in your neighbo (PROBE: JUST A GUESS	orhood in the last year?	en sexually assaulted or (GET BEST ESTIMATE)	
(RECORD NUMBER)			

#### ASK OF FEMALES ONLY

# (ASK Q. 47-49 OF FEMALE RESPONDENTS ONLY)

-47F.	On the zero to ten scale we have been using chances are that someone will try to sexual neighborhood? Let TEN mean that your chance ZERO mean that there is NO POSSIBILITY at a (PROBE: JUST A GUESS, 0-10 WILL DO)	ly assault you in this	
	(RECORD NUMBER)	Don't know	31-32
48F.	Now, think about the last time you went out neighborhood. How afraid or worried were you assaulted or raped? Use the same numbers ze (RECORD NUMBER) 0-10	then about being severally	33-34
49F.	Do you personally know of anyone who has been sexually assaulted?	Yes	
50A.	Did this happen to someone you know, or to yourself?	Someone you know 1————————————————————————————————	36
508.	When this happened to you, did you report it to the police?	Yes	37
50C.	How long ago did this take place? (ASK AS OPEN END)	Within past six months.1 Seven months-1 year . 2 Between 2-5 years ago. 3 Between 6-10 years ago.4 More than 10 years ago.5 Don't know	38
50D	Where did these sexual assaults happen? ( First Mention	READ CODES) Second Third Mention Mention	
	Present neighborhood 1-39 City 2 Out-of-town 3 Don't know 7 Not ascertained 8 Inappropriate 9	1-40 1-41 2 2 3 3 7 7 8 8 9 9	

Cd 4

# (ASK OF MALES ONLY)

	(ASK OF MALES O	JNLT)
47M.	What do you think the chances are of this neighborhood? Let TEN mean that and ZERO mean that there is NO POSSIG GUESS, 0-10 WILL DO)	t chances of rape are EXTREMELY HIGH
	(RECORD NUMBER)	Don't know
48M.	Not asked	44 MC
49M.	Do you personally know of anyone who has been sexually assaulted?	Yes
50M.	Where did these sexual assaults happe	en? (READ CODES)
	Present neighborhood City Out-of-town Don't know	First Second Third  Mention Mention Mention  1-46
:	Not ascertained Inappropriate	8 8 8 9 9

# ASK OF EVERYONE

51. There are many different opinions about how to prevent rape or sexual assault from happening. I'm going to mention several possible ways of preventing rape and we'd like to know what, in general, you think about each of these ideas. For each one I read, please tell me how much you think it would help to prevent rape, would it: Help a great deal, help somewhat, or help hardly at all. (READ CATEGORIES) (ROTATE)

		Help A Great Deal	Help Somewhat	Help Hardly At All	Don't Know/ Not Ascertained	
a.	Stronger security measures at home, like better locks or alarms Would they (READ CATEGORIES)		2			
b.	Women not going out alone, especially	. 3	2	. 1		49
	at night.	3	2	1 .	7 .	50
c.	Women dressing more modestly, or in a less sexy way.	3	2	. 1	7	51
d.	Providing psychologica treatment for rapists. Would his			•		
e.	and against the second	3	2	1	7	52
	take self-defense classes, like judo or karate.	3	2	1	7	53
f.	Women carrying weapons for protection, like knives or guns.	3	2	1	7	54
g.	Newspapers publicizing names and pictures of known rapists.	3	2	1	7	55
h.	Women refusing to talk to strangers. Would this (READ CATEGORIES)	3	2	,		••
١.		3	2	,	7	56 57
j.	Rape victims fighting back against their attackers.	<b>3</b>	2	1	7	.58
k.	Increasing men's respect for all women.	3	2	1 .	7	59
7	Te there southing					

Is there anything else that you can think of that would help prevent rape? (IF YES, WHAT?)

m. From all the things you can think of, which one do you feel would work <u>best</u> to help prevent rape?

Finally, we have a few more questions for statistical purposes.

, was in the day of more questions for	but is a few purposes.
D1. How many years have you personally lived in your present neighborhood?  (RECORD YEARS)	Don't know 97 Not ascertained 98 60-61
D2. Do you live in a single family house, an apartment building with less than 7 units or a building with 7 or more units?	Single family 1-62 Less than 7 units
D3. Do you own your home or do you rent it?	Rent 1-63  Own (includes buying) 2  Don't know 7  Not ascertained 8
D4. Do you expect to be living in this neighborhood two years from now?	Yes
D5. Do you carry an insurance policy which covers your household goods against loss from theft or vandalism?	Yes
D6. What is the last grade of school you completed?	No formal education00 -66/67 Grade school or less  (Grades 1-8)01 Some high school02 Graduated high school  (Grades 9-12)03 Vocational/Technical  school04 Some college05 Graduated college06 Post graduate work07 Don't know97 Not ascertained/Refused .98

Cd 4

D7.	How many children under the age of 18 are currently living with you?	Don't know	68-69
D8.	Are you presently employed somewhere or are you unemployed, retired, (a student), (a housewife), or what?	Working now 01 With a job, but not at work because of temporary illness, labor dispute, on strike, bad weather . 02 Unemployed	70-71
a.	What is your occupation?  (RECORD VERBATIM)		72-73 MOR
D9.	Considering all sources of income and all salaries of people who worked last year, what was your total household income in 1976? You con't have to give me an exact amount, I'll just read some categories and you tell me which applies to your household.	Below \$6,000 0 -74  Between \$6,000 and \$9,999 }  Between \$10,000 and \$14,999 2  Between \$15,000 and \$19,999	

75 MOR 76 Cd # 77-80 Job #

	Cd 5 1-20 ID
DlO. Besides being an American, we would like to know what your ethnic back- ground is. For example, is it Irish, Puerto Rican, Afro-American or what?	Puerto Rican.       1       21         Mexican       1       22         Cuban       1       23         Other Latin       1       24
KP - 0 Fill	Polish
Dil. For statistical purposes, we would also like to know what racial group you belong to. Are you Black, White, Asian, or something else?	Black        1-36         White        2         Asian        3         Other       4       4         Refused        6         Don't know        7
D12. Were you born in the United States or somewhere else?	Born in U.S
D13. By the way, since we picked your number at random, could you tell me if your phone is listed in the phone book or is it unlisted?	Listed
D14. We also need to know how many different telephone <u>numbers</u> you have at home. Do you have another number besides this one?  (IF_YES, HOW MANY)  (NUMBER OF OTHER NUMBERS)	Don't know 97 -39/40 Not ascertained 98
D15. What is your age?	(Record exact age) Refused 97-41/42 Not ascertained 98

QUALITY CONTROL TIENS									
(INTERVIEWER RATE INTERVIEW FOR ALL RESPONDENTS)									
Q.1 Respondent's English was:	Good 1 -50 Fair 2 Poor								
Q.2 Was interview taken in Spanish?	Yes								
Q.3 Respondent was:	Very cooperative1-52 Fairly cooperative2 Not very cooperative3								
Q.4 Respondent seemed:	Very interested in interview								
Q.5 Do you believe the information given to you by the respondent is	Accurate								
Please explain									
	·								

55-75 MOR

76 Cd # 77-80 Joh # -- We know that crime is a problem in many neighborhoods. We are going to be interviewing some people in person to discuss the ways they protect themselves from harm, including sexual assault. It would help us if you would talk with us. We will be able to pay you something (\$10) and we could come directly to your house or meet you somewhere else at a time that is convenient for you. Would you like to participate?

No .										1-43
Yes	(G0	TO	TEAF	≀ S	HEE	T)				2
Unde	ecid	ed/I	OK.							7